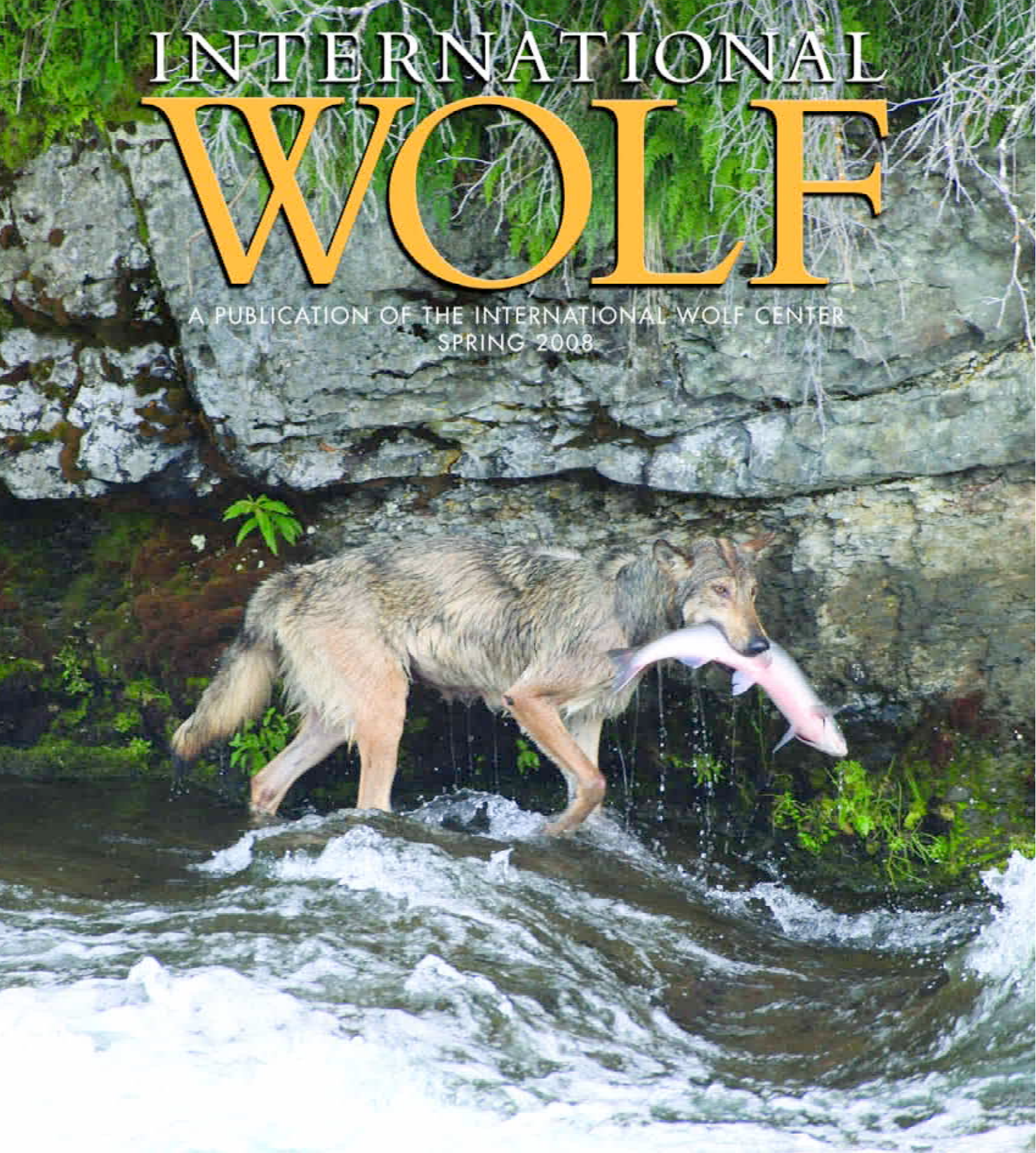
INTERNATIONAL WOLF

A PUBLICATION OF THE INTERNATIONAL WOLF CENTER
SPRING 2008



INTERNATIONAL
WOLF

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER
VOLUME 18, NO. 1 SPRING 2008

Features


Paul Stinsa


Sherry Jokinen

Departments

On The Cover

A wolf catches a salmon at Brooks Falls, Katmai National Park, Alaska. See page 4 for story.

Photo by Paul Stinsa.


International Wolf Center

International Wolf Center™

INTERNATIONAL
WOLF

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International Wolf (1089-683X) is published quarterly and copyrighted, 2008, by the International Wolf Center, 12615 Co.Road 9, Minneapolis, MN 55441, USA.
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Publications agreement no. 1536338

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Intemational Wolf welcomes submissions of personal adventures with wolves and wolf photographs. Prior to submission of other types of manuscripts, address queries to Mary Ortiz, publications director.

International Wolf is printed entirely with soy ink on recycled and recyclable paper (text pages contain 20% post-consumer waste, cover paper contains 10% post-consumer waste). We encourage you to recycle this magazine.

PHOTOS: Unless otherwise noted, or obvious from the caption or article text, photos are of captive wolves.


Wendy Anderson

Wolf Educator Will Be Missed

Pamela Sue Troxell, 48, died at her home in Mason, Wisconsin, on November 9, 2007. For the past 15 years she conducted educational outreach as the coordinator of the Timber Wolf Alliance at Northland College's Sigurd Olson Environmental Institute in Ashland, Wisconsin. Working closely with the Wisconsin and Michigan Departments of Natural Resources (DNRs), Pam organized workshops to teach others about wolf ecology, trained agency personnel and volunteers to conduct track surveys of wolves, and testified at hearings on regulations and policies affecting wolf management. She expanded Wolf Awareness Week from a Midwest event to a national program. Adrian Wydeven, chief wolf biologist at the Wisconsin DNR, said Pam had a great gift for bringing people together to share interests and concerns about wolves.


Tom Hustad

Pam Troxell was the coordinator of the Timber Wolf Alliance at Northland College's Sigurd Olson Environmental Institute in Ashland, Wisconsin, for 15 years.

Pam recently received the Silver Eagle Award from the U.S. Fish and Wildlife Service (USFWS) for her contribution to the recoveryof gray wolves in the upper Midwest. She also received, along with nine other organizations, a Cooperative Conservation Award from the Department of the Interior for the Timber Wolf Alliance's leadership role in the delisting of the Western Great Lakes wolf population.

Pam's husband, John Olson, said, "Pam's loving personality, faith in family and community, and goal to live simply were ever-present in all of her endeavors." To honor Pam's life, a memorial garden of native plants and a wolf sculpture will be established at Northland College. Contributions can be made to the Pam Troxell Memorial Fund, Associated Bank, 221 4th Ave., Ashland, WI 54806. ■

From the Board Chair

Are Wolves a Canary in the Climatic Coal Mine?

We hear almost daily about the effects of global climate change. At the Center, we are frequently asked, will it affect wolves?

In 1997, snows came early to Ellesmere Island in the High Arctic, where Dr. L. David Mech studies wolves. The treeless terrain and the thick coats of the wolves and their two prey species—musk-oxen and arctic hare—were matted in white. Most significantly, the sparse vegetation that feeds both herbivores was covered in snow by August 25, about a month early. The precipitation continued at double and triple its usual monthly levels, and temperatures dropped below long-term norms.

The following year when Mech made his annual July trip to Ellesmere, he found smaller musk-oxen and arctic hare populations, and no young. He examined the remains of nine musk-oxen that had died during the winter. The devastating snows of 1997 had reduced the time by nearly half when they could graze and build up fat reserves for the winter. Their leg bones held no marrow fat. They had starved.

Nancy jo Tubbs

With fewer prey available, the wolves that frequented the area had not produced pups.

In 2000, the snows began even earlier, on August 14. The following year, Mech found 18 musk-oxen remains and, again, no reproduction among musk-oxen, arctic hare or wolves.

Records show that from 1947 to 1990, snow and colder temperatures held off until around October 1 in this area. The low temperatures and early snows of 1997 and 2000 were the most extreme reported in 53 years. It seems likely that these anomalies are symptomatic of global climate change.

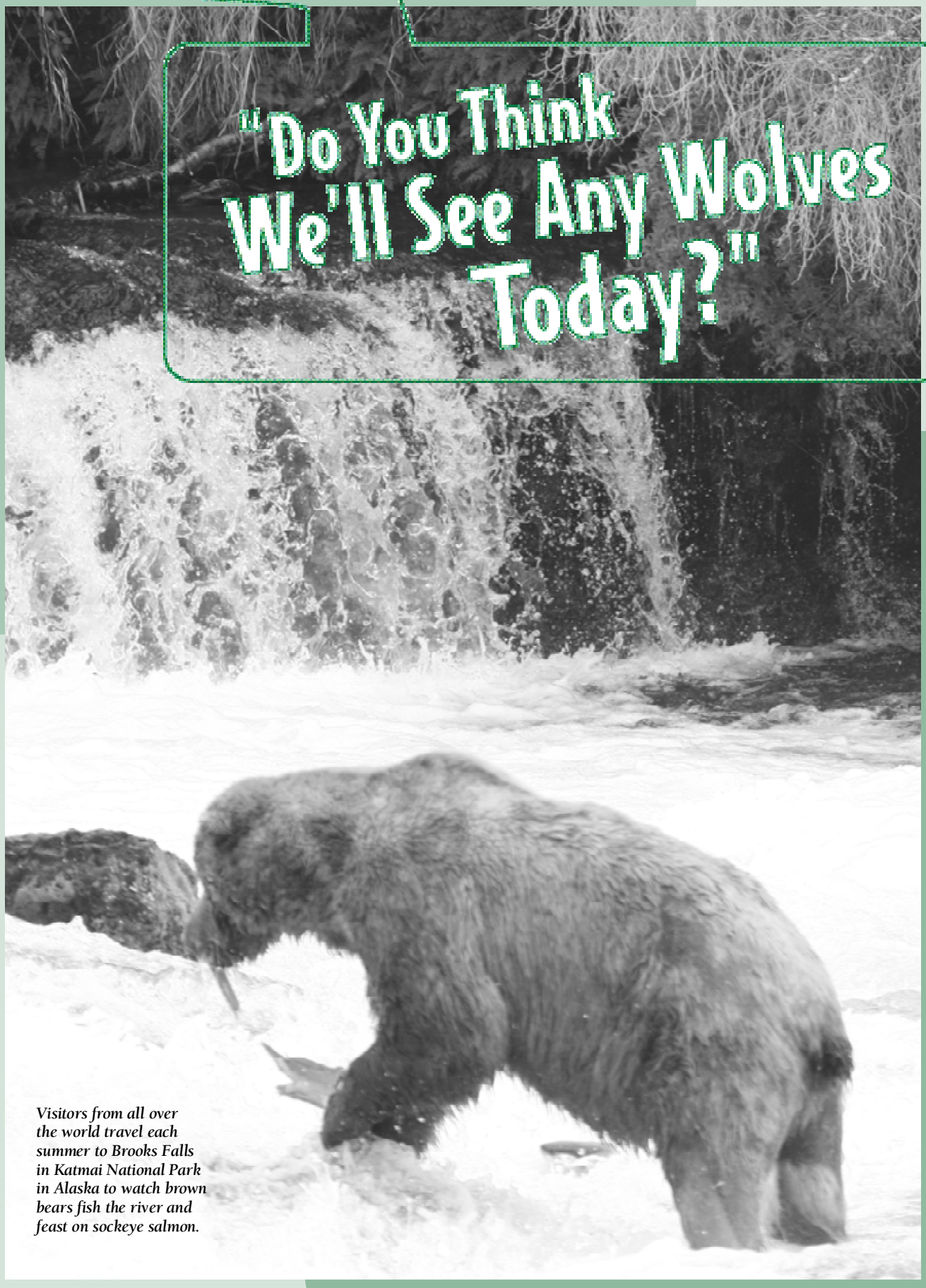
As the species of Ellesmere were affected by dramatic weather shifts, so may others be. On Isle Royale in Lake Superior, moose are bedeviled by winter ticks that benefit from increasingly warm spring weather. The ticks feed on the island's moose in such numbers that the moose become anemic from loss of blood. They scrape against trees, removing hair, and become less able to retain body heat in winter.

Because Isle Royale's wolves rely almost exclusively on moose for food, wolf numbers there are in decline. Again, a cascading series of consequences, beginning with climate change, is resulting in less food for the wolf population.

Colder temps and early snows near the North Pole and warmer springs on an island in Lake Superior may both take their tolls on wolf numbers. Could climate change negatively affect wolves? Two instances suggest the answer is yes. ■

Nancy jo Tubbs

"Do You Think We'll See Any Wolves Today?"



Visitors from all over the world travel each summer to Brooks Falls in Katmai National Park in Alaska to watch brown bears fish the river and feast on sockeye salmon.

Text and photos by PAUL STINSA

Brooks Falls in Katmai National Park in Alaska has been described as the premier bear-viewing location on Earth. Visitors from all over the world travel each summer to the remote Alaskan wilderness to watch brown bears fish the river and feast on sockeye salmon. The midsummer return to the falls of hundreds of thousands of spawning sockeye salmon attracts one of the largest concentrations of brown bears found anywhere. If you have seen photos or video of a giant brown bear with his mouth open wide, sitting atop a fast-moving waterfall, about to catch a leaping salmon in midair, the images were likely taken at Brooks Falls.

After watching the bears repeatedly catching salmon, people would be surprised to learn that the bears are not the most effective salmon catchers at the falls. In July 2007, I had the pleasure of watching a female wolf enter the river and catch 15 salmon in just over an hour of fishing.

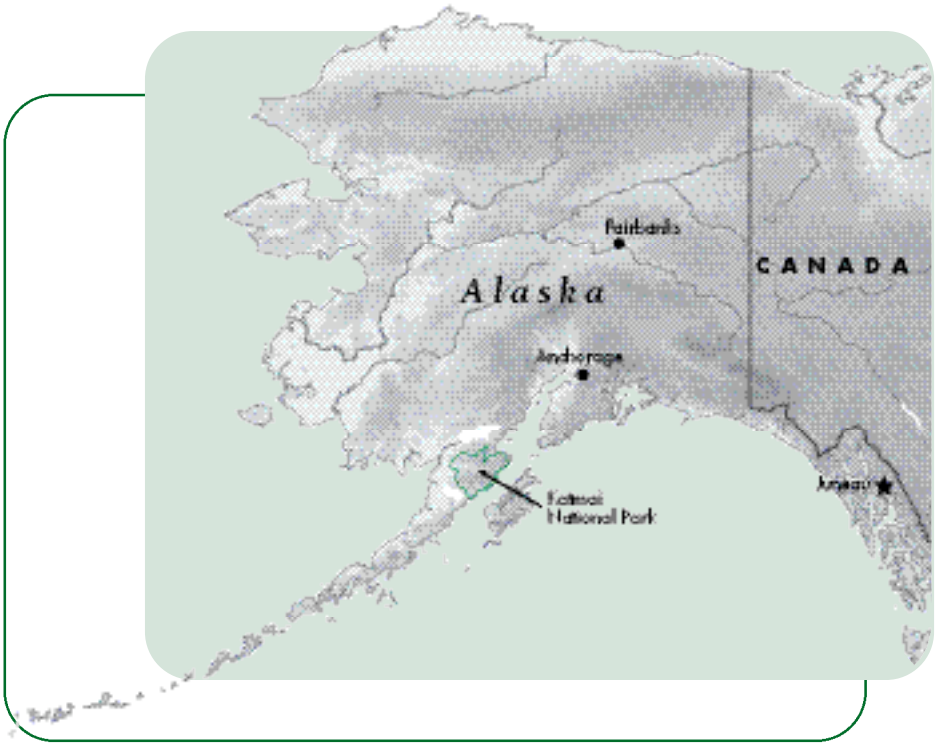
Brooks Falls is located about 265 miles southwest of Anchorage in the vast and rugged Katmai National Park (see map). Just getting to the park can be an adventure since there are no roads and visitors must fly into the park on floatplanes. The Brooks River flows for about two miles from Brooks Lake to Naknek Lake. Most trips to Katmai begin on the shores of Naknek Lake near the mouth of the river, at Brooks Camp. Newly arriving visitors are immediately put through a park service orientation class about proper behavior around bears. If I had any doubts about seeing bears on this trip, they were put to rest during the middle of my orientation class when the park ranger had to stop speaking and chase a bear away, just outside the door I had entered five minutes earlier.

With bear class over, I left the camp and headed out on the trail to Brooks Falls. If there are no bears blocking the trail, the falls are about a 15-minute walk from camp. The floating bridge near the camp is the first major obstacle along the way. When the water level in the river is low, as it was this year, female bears find this area to be a haven for raising cubs and catching fish in the pools near the bridge. So often the bridge would be closed for hours at a time, as the cubs and their mothers played and slept near the bridge, preventing bear watchers from walking upriver to the falls. Having been told this by the ranger, I took the opportunity to cross the bridge while it was open. I was lucky, because moments later the cubs woke up and began playing near the bridge, and people were unable to cross for several hours.

After a nervous walk through the dense forest, constantly clapping my hands and speaking, "Hey Bear!" to alert bears to my presence, I arrived at the falls viewing platform at mid-morning. Only about six or seven people were there. The viewing platform holds 40 people, and at times there are so many that the park rangers limit viewing time to one hour in an effort to fairly accommodate all visitors. But on this day, it was overcast and looked like rain could pour at any moment, so I imagine many people stayed behind at camp.

It is not unusual to see more than a dozen bears near the falls simultaneously. It quickly becomes apparent that there is a clear pecking order among the bears, and they are not comfortable being near other bears. Most of the bears near the falls are large males, and they do not hesitate to chase smaller bears away from the prime fishing areas immediately above and below the falls.

On this day, only two bears were fishing at the falls when I arrived. A large male was in the pool below the



falls, and a smaller male chased salmon about 50 yards downriver. Almost a dozen shredded salmon carcasses in the shallow water in front of the viewing stand pointed to recent bear activity. While photographing the large male, I noticed some of the people move to the right side of the platform and lean over to look down. This is usually a sign that a big male bear is approaching from the woods and getting ready to walk out into the pool. However, when I looked closely into the woods, I was surprised to see a wolf had appeared and was looking out into the river.

As an amateur photographer, I am always scrambling to try and get the perfect photo. Between choosing lenses and fidgeting with camera settings, it's very difficult to capture a wonderful moment in time with the camera. Add dark skies and skittish animals, and it is not surprising that I didn't get a good shot of this brief encounter with a wolf. I chuckled to myself as I thought about a conversation earlier that morning. As we flew into the park, a nice fellow from Wisconsin said to me, "Do you think we'll see any wolves today?" Having traveled from Illinois, I thought to myself, "Yep, he's certainly from Wisconsin. He's come to the bear capital of the world, and he's wondering if he'll see a wolf." In all of my researching and preparation for this trip, I had never seen any mention of wolves, and I thought it was crazy to think we'd see one. I had just been proved wrong, and I would be even more astounded moments later.

After trotting under the viewing platform, the wolf disappeared into the tall grass upriver, near the top of the fish ladder. The wolf reappeared close to a bear fishing above the ladder, but the wolf soon vanished, and we all thought we had seen the last of it. About half an hour later though, the wolf appeared on the opposite side of the river, below the falls. There were still two bears—the large male and a smaller male—fishing in the river. The wolf appeared to be eyeing the salmon carcasses in the shallows. It repeatedly walked along the shore, looking like it would make a dash out into the river at any moment and grab the leftovers.

At this point, the smaller bear noticed the wolf and headed toward it with its head lowered, moving side to side. It was clear the bear was going to chase the wolf out of the river, and moments later the wolf headed up the bank and into the woods. However, in doing this, the smaller male had attracted the attention of the large male, and moments later was being chased out of the river himself. The larger male must have had enough fish, because he too left the river, and there were no bears fishing at the falls. For a few minutes,

The wolf slowly crept through the shallow water along the rock wall below the falls (opposite). As the wolf neared the base of the falls, it dove headfirst into the pool (above).

nothing was happening at the falls, and some of the viewers left the platform to head back to camp. This would prove to be a mistake, as the wolf soon came trotting down the riverbank and into the water across from the viewing platform.

I stood on the platform, scrambling to set the camera properly to photograph a dark, moving subject against a black background on an overcast day. I watched intently as the wolf slowly crept through the shallow water along the rock wall below the falls, sneaking up on the resting salmon from downstream. As the wolf neared the base of the falls, it dove headfirst into the pool. In a flurry of splashing water, it pulled its head out of the river with a salmon, desperately flopping, clamped in its jaws. The wolf then cautiously walked downriver and ran up the trail into the woods.

The wolf appeared to be eyeing the salmon carcasses in the shallows. It repeatedly walked along the shore, looking like it would make a dash out into the river at any moment and grab the leftovers.

The visitors on the platform looked at each other in surprise at how quickly the wolf had caught a salmon dinner. It had not been in the river for more than a couple of minutes before making a catch. Nobody on the platform, including the park ranger, had ever heard of this behavior from a wolf, much less witnessed it. We all felt as though we had received a unique bonus on our bear-viewing trip. As we were discussing our good fortune, we were amazed to see the wolf coming back down the trail and

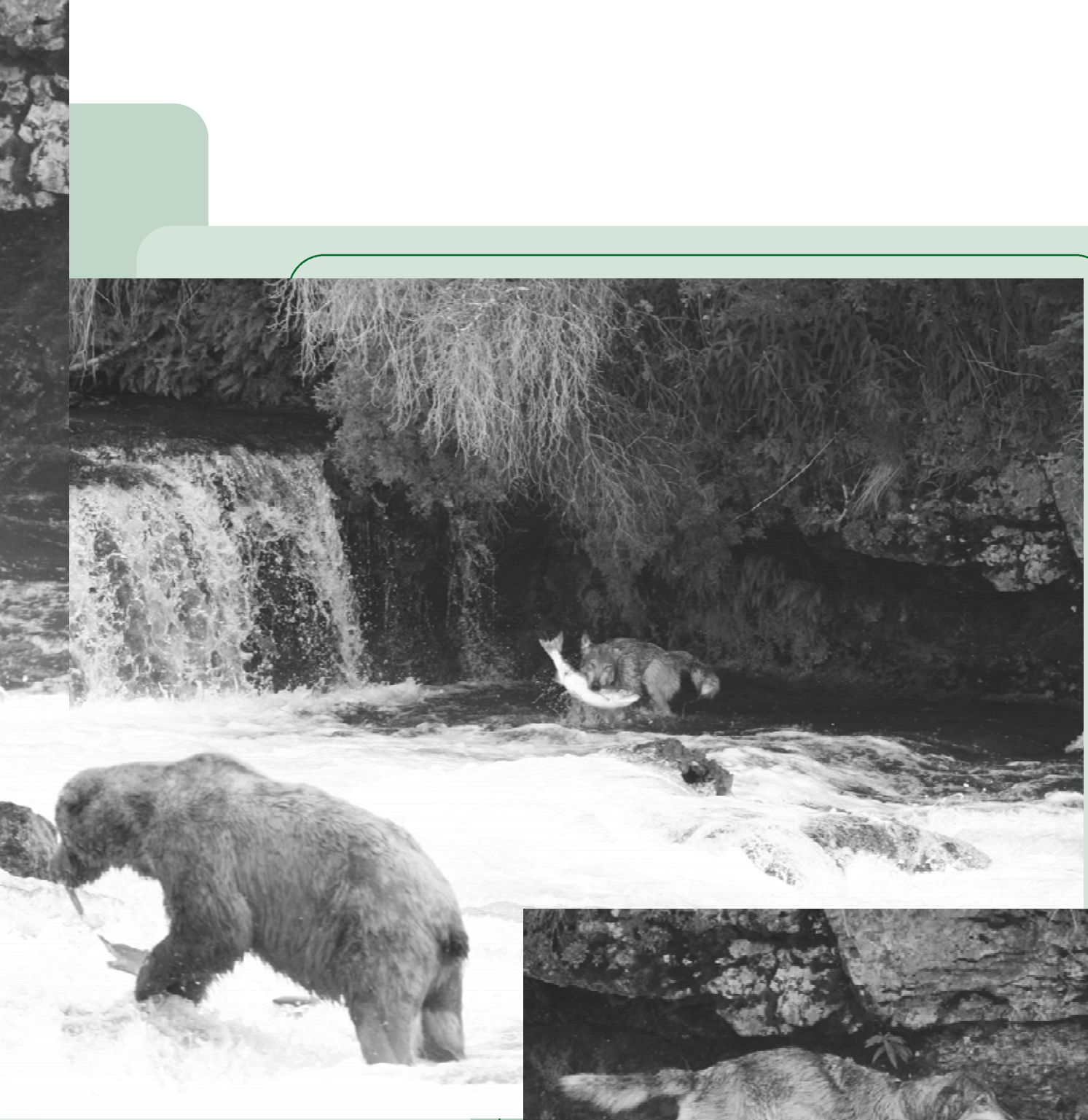
In a flurry of splashing water, it pulled its head out of the river with a salmon, desperately flopping, clamped in its jaws.

entering the river again, less than ten minutes since it had caught the first fish. The wolf again entered the river, walked up to the salmon below the falls, dove into the pool, and came up with another six-pound dinner.

Over the next 50 minutes, the wolf repeated this action 13 times. That's 15 river-fresh salmon in just over an hour. Because the wolf clearly did not eat all the fish it caught, I suspect it may have been feeding pups hidden in the woods above the river. Also amazing is that a large male bear arrived below the falls and started fishing within 20 yards of the wolf after it had caught its seventh fish. The bear never seemed bothered by the wolf, and I was fortunate to photograph both the bear and the wolf feeding simultaneously on the salmon just below the falls. Because the bridge downriver had been closed the whole time the wolf was feeding, few people were on the viewing platform to see this. The crowd of people held up for several hours arrived just as the wolf was finishing. I had been fortunate to witness a rare event and managed to shoot photos of all 15 salmon catches by the wolf.

When I think of the risk and difficulty required to evade territorial brown bears to either feed pups or hide the dead fish in the woods without being attacked, I'm amazed at the intelligence shown by the wolf while fishing at Brooks Falls. During my four-day stay at Katmai, I never saw a bear come close to that level of efficiency. What appeared obvious to everyone watching that afternoon was that this wolf had fished like this before. Its fishing skill was not an accident but rather a repeatable, successful process. The wolf had no intention of scavenging the leftovers from the bears. It had managed to catch all 15 fish and take them into the woods, returning each time by the same trail, without coming into contact with the bears walking in the forest above the river.

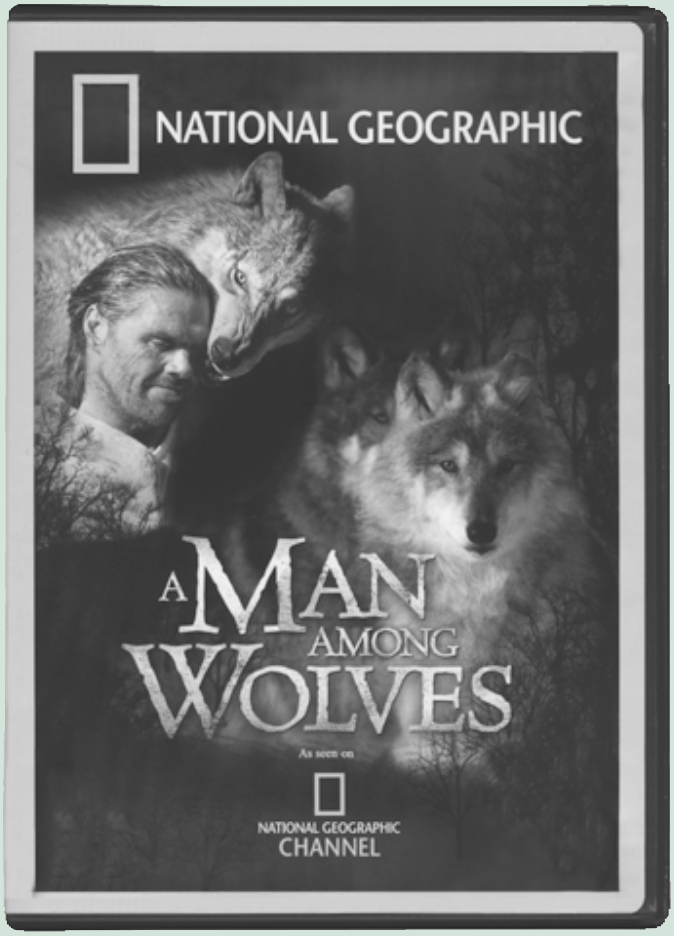
I plan on returning again to Brooks Falls in the future for more photography. It will be tough to top my last trip, but I hope to again witness the size and power of the brown bears and the intelligence of the wolves as they both partake in the incredible feast offered by the sockeye salmon on their spawning journey. ■



Paul Stinsa is Director of Strategic Sourcing - Information Technology for a major airline. He is an avid amateur photographer who hopes someday to combine his hobbies of photography and travel into a new career.

Sensational Geographic

by NANCY GIBSON



My choice for this year's sci-fi award goes to National Geographic cable television. *Survivor* and *Fear Factor* meet National Geographic. It is a painful transition. Two recently aired National Geographic shows, *A Man Among Wolves* and "Shadow Stalkers," an episode of *Hunter and Hunted*, have shattered our neat picture of National Geographic. One depicts a self-anointed wolf expert caged with three captive wolves in a small enclosure in England under the delusion he can teach them how to survive in the wild. The other show concerns a grisly death turned corrosive mystery in which an anthropologist, not a wildlife biologist, is asked to solve the highly charged case of a human possibly killed by wolves in the Canadian wilderness. Wild furry animals with big teeth on the move in the night have always been a source of emotional conflict. National Geographic capitalizes on these feelings and devises overbaked scenes with wolves posed either as villains or friends. The ultimate victim is the viewer.

Shows like these represent a precarious plight for the esteemed National Geographic organization, which is quickly spiraling to the depths of tabloid TV. National Geographic is a vast multimedia holding with tentacles in eight magazines, movies, education tools like their Geographic Bee, exotic expeditions and now a cable TV station. All these subsidiaries share the esteemed brand that started in 1888 with its amazing content from around the globe. Its mission statement says its "programs support critical expeditions and scientific fieldwork." Sound science and National Geographic used to share the burden of getting the right information to the right people to help make the right decisions. But no longer—the National

Sound science and National Geographic used to share the burden of getting the right information to the right people to help make the right decisions.

Geographic cable station has fallen prey to the lure of sensational TV and is attempting to survive on nature's oddities.

I have raised far more captive wolves than the "Man Among Wolves," Shaun Ellis. I also learned from the ultimate teachers, a wild wolf pack on Ellesmere Island for three summers along with Dr. L. David Mech. Rearing 10-day-old pups into adulthood takes a trained group of individuals, just like a pack. When humans take a break from the wolves, others need to be present for consistent care that includes feeding, immunizations and critical handling to limit time under the care of a veterinarian. Ellis did a disservice to the longtime experience of wolf caregivers, if, in fact, he was the sole caregiver, as implied.

In addition, I have worked in the media for 25 years and have two Emmys for my stints with the Public Broadcasting Service—work focused on wildlife. With this background, I am appalled at these sensational productions. Everyone in TV knows that kids and animals attract viewers. Add well-honed techniques of repetition, hyperbolic scripts, intense close-ups, pulsing music, intriguing light, disturbing sounds, real or perceived controversy, and the recipe for keeping viewers transfixed is complete. But the National Geographic audience expects and deserves more. Wildlife needs respected science, education and help, not hype.

International Wolf Center

Some people view wolves as serial killers while others hold them in reverence. These rivalries make headline news, but the truth usually lies in the middle steeped in science, not fiction.

A Man Among Wolves repeats disgusting scenes paired with gripping narration. Seven times the audience is faced with Ellis crouched over a deer carcass, gnawing on a frayed liver and growling. Gnarling teeth are accompanied with dramatic words: "Never will [he] be in greater danger," and he acts "like any other wild animal." The audience may be gripped in the fear-factor face-off, but I am incensed. Ellis's goal is to release these captive-raised wolves in the wild, and then he wants to live with a wild pack! This should have been a Disney cartoon paired with *Jungle Book*. Snarling Ellis forgets wolves howl and hunt just fine without human intervention.

In the introduction National Geographic elevates the *Homo sapiens* Ellis to hero status with outrageous narration of "few who dare" paired with the "always feared" wolves. Where do all the legitimate wolf scientists and educators fit into this

sensational scenario? Where is the accountability? National Geographic cable TV finally summons up some credible scientists for the show. A few knowledgeable quotes and scenes and the audience is comforted with the old brand of authority. The treachery is complete. Just maybe these wolves hand-raised by this amateur can be candidates for release to the wild. Just maybe wolves raised with humans at the edge of their enclosure won't be tempted by these familiar smells and movements. Or maybe not . . . stay tuned.

The National Geographic film crews then move into the wilderness of northern Saskatchewan, Canada, the land "of the most ferocious predators on earth," according to the narrator. In fading light, the series *Hunter and Hunted* plays sleuth to get to the bottom of what killed 22-year-old Kenton Carnegie. In the process the cable TV station falls into the pit of disgusting and disrespectful productions. A young man is dead from bad judgment, but National Geographic is there to illuminate each fatal flaw over and over, naming the likely culprit: wolves. An actor re-enacts Carnegie's final moments. Five times the camera focuses on feet running through thick forests accompanied by heavy gasps of breath. Just for the record, forest trees are short and thin at this latitude. Three times the actor lies face down in the snow while moonlight illuminates the hysterical manipulations of trained dogs ripping at his pants—hardly the death grip of wolves. Scenes of bloodied boots being dragged through the snow are interchanged with scenes of wolves tearing apart their dinner in Yellowstone National Park. Scenes of wild wolves in the park are shown, while the script details the predatory qualities of wolves, who, we are told, are able to run 35 miles an hour for hours? A moon travels across the screen as the narrator says, "Seems someone has been hunted down." The light fades more, and wolf eyes are conveniently found against the snow-covered forest, "Winter makes predators hungry," the narrator adds.

Quick cut to the previous year, when a 55-year-old miner decides to run two miles home in heavy winter boots in thick woods, and a lone wolf attacks. "Solitary wolves are desperate," says the rising voice accompanied by chilling night sounds. The wolf attacks, but somehow the miner's colleagues spot their friend in the darkened woods and rescue him from its deadly jaws. Whew, he was saved, but the audience is not. The suspenseful encounter is aired three times accompanied by horrific sounds of the actor and trained canine. There really was a serious encounter between a wolf and human. It happened along a road suitable for running, and yes, the man was able to get the wolf in a headlock. The wolf totally submitted, urinated and whimpered. Isn't that sensational enough?

The evidence is mounting against wolves, the "consummate hunters," so we head back to the scene of the Carnegie crime in Saskatchewan. Predator-versus-prey struggles from Yellowstone Park are shown, while Carnegie is portrayed as a vulnerable human lacking some common sense. And yes, the tightly wound plot returns with a full moon and repetition of ghostly scenes and sounds.

Finally, in the concluding moments, the narration cuts the spectacular adverbs and tones, the light returns, and real wolf experts are consulted. The last few minutes reveal that wolves and a bear might have been the cause of Carnegie's demise. But then again maybe not—the real rogues could be humans. Humans inadvertently feeding wild animals at garbage dumps breaks down a wildlife barrier. Humans thrilled to have these wild dogs in their midst capture and encourage close-up photos. A colleague of Carnegie, holding a large stick, was photographed with a wolf just days before Carnegie's death. These actions lead to dangerous encounters between typically elusive wolves and humans and may have been enough to cause the early demise of Kenton Carnegie.

Some people view wolves as serial killers while others hold them in

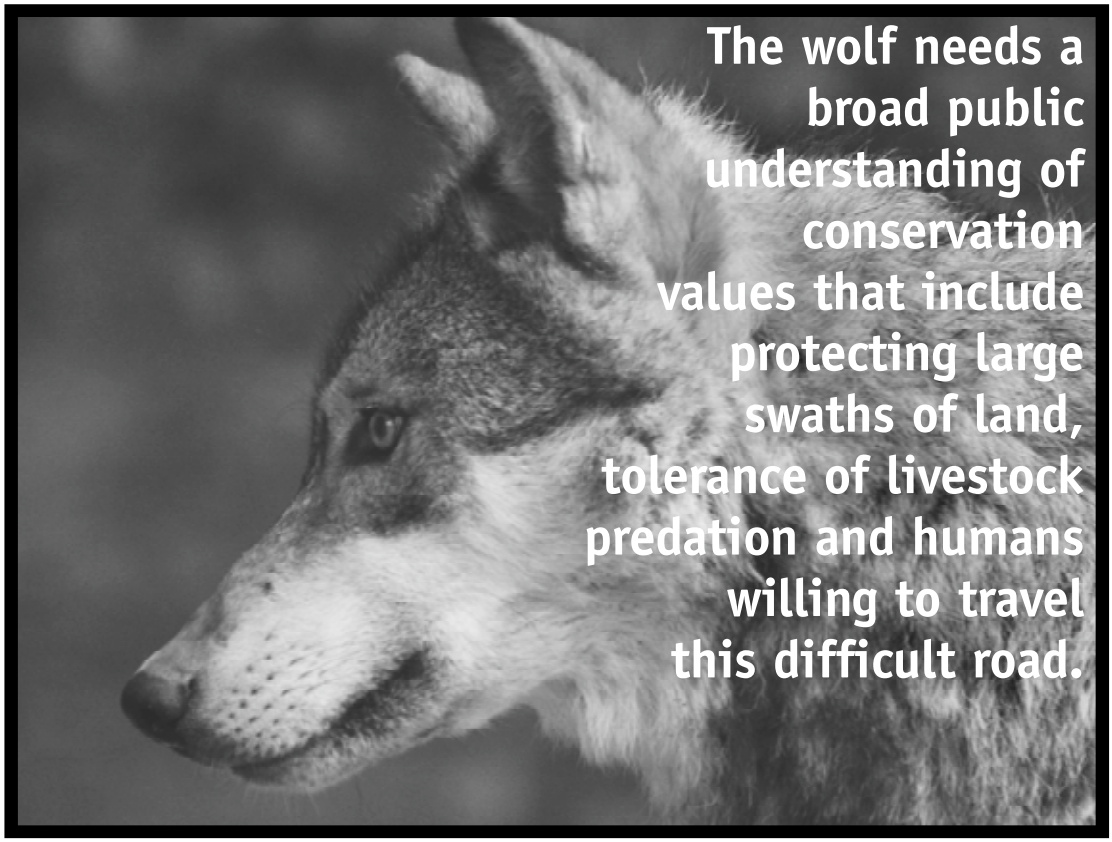
Unlike in the National Geographic episode, retired wildlife biologist Mark McNay and wolf biologist Paul Paquet were called upon to testify about the grim killing of Kenton Carnegie at a coroner's inquest in Prince Albert, Saskatchewan, in November 2007. Three days of "dogged debate" and testimony resulted in a six-person jury's finding that the 22-year-old engineering student was killed by a pack of four wolves just a half-mile from a remote mining camp. The jury sided with McNay, who studied wolves for more than 13 years in Alaska and spent two of those years researching wolf attacks in North America. He stated that nearly all of those attacks involved "habituated" or "food-conditioned" wolves, as was the case in Carnegie's death.

reverence. These rivalries make headline news, but the truth usually lies in the middle steeped in science, not fiction. Science used to be National Geographic territory and this cable TV program feels like a eulogy to an old trusted friend.

To test my reaction against another, I sent video copies to a 13-year-old girl fascinated but schooled about wolves to get her assessment. She called Ellis "weird, not a normal person." *Hunter and Hunted* elicited comparisons to a "horror movie that was creepy with too much blood." Her recommendations for the shows had caveats that good wolf background is needed first.

Production may be under way for a sequel to *A Man Among Wolves:* Ellis attempting to live with a wild pack in Finland. The production crew claims that this "Wolfman" series "clearly portrayed the species in a more positive light than has been attained for many years." The wolf doesn't need this simplification of complex ecological and survival struggles. The wolf needs a broad public understanding of conservation values that include protecting large swaths of land, tolerance of livestock predation and humans willing to travel this difficult road. Surging human populations are gobbling up natural resources at unprecedented speed. National Geographic cable TV should be in the driver's seat on this issue since wildlife has been National Geographic's bread and butter for more than a century. Instead, the TV show is stealthily circling Hollywood, looking for vantage points of exploitation. Next up is "Feral Children." Remember kids and animals are screen favorites. What will be next? ■

The wolf doesn't need this simplification of complex ecological and survival struggles.



Becki Johnson

Nancy Gibson is a co-founder of the International Wolf Center and is currently on the board. She hosted the Emmy Award–winning show Newton's Apple *for 13 years and has won numerous awards for her work in conservation.*

INTERNATIONAL WOLF CENTER

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Sean Staelens was an Eagle Scout, loved the outdoors and had a lifelong passion for wolves. He visited the International Wolf Center often, starting when he was eight years old. Sean recently graduated from Northland College in Ashland, Wisconsin, with a degree in biology.

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Andi Nelsen

Gail Ramee

Theresa Williams and Darin Groeneveld

Charles Wunderlich

Thank You

Tracking the Pack

Planning for Pups

by Lori Schmidt, Wolf Curator, International Wolf Center

The International Wolf Center manages an exhibit of wolves at its educational facility in Ely, Minnesota. Rather than maintaining multiple species, like a zoo, we focus our care on a limited number of ambassador wolves, which help us achieve our mission of advancing the survival of wolf populations by teaching about wolves, their relationship to wildlands and the human role in their future.

We see that visitors' experiences benefit from viewing captive wolves, especially socialized wolves, from which they can get a glimpse of individual traits of wolves and better understand the social characteristics of the species that make it a successful top-level predator. Portrayals of wolves often emphasize their predatory behavior, whereas the Center provides a view of the intricate pack life and organization that keep the wolves together as a social unit.

To maintain a cohesive social pack, new life must be added to the exhibit. Our management plan calls for two pups to be added to the exhibit approximately every four years, allowing enough time for the pack to cohere but not so much that new pups would be too stressful for the older animals. With this timing the pack can focus on providing a place in the rank order for the maturing pups, keeping the pack more cohesive and delaying the inevitable retirement of the older wolves until 10 to 12 years of age.

Since our ambassador wolves are spayed and neutered, we must look outside of our organization to find new pups. In 2008 pups will come from the Wildlife Science Center (WSC) in Forest Lake, Minnesota. The WSC has conducted research on captive wolves and provided educational programs and science-based training for the past two decades. It is a professional facility that breeds wolves only on request from other professional facilities and has strict standards about where the pups are placed and how they will be maintained.

Newly born animals of any species are sensitive to their new environment and can be easily stressed by human crowds and especially by human handling. Wolf care staff will always have the pups' safety in mind when scheduling public display. Watch the Web site at www.wolf.org for details of the pups' arrival and the schedule for public viewing. ■

Kristin Radamacher

The International Wolf Center's management plan calls for two pups to be added to the exhibit in Ely, Minnesota, approximately every four years. Maya (top) and Grizzer were added in 2004.

Wolves of the World

Wolves of the World on the Web

by Cornelia Hutt

Are there wolves in Japan?

In what country are wolves sometimes called "ky kebero" or the "Abyssinian wolf"?

How many wolves live in Russia?

In what western European countries are there no established populations of wolves?

In what nation are private individuals proposing to reintroduce wolves in the wild?

What are saiga, and where do they live? What do saiga have to do with wolves?

At the International Wolf Center's Web site, you can go to "Wolves of the World" and click on a region to get up-to-date and accurate information about wolves.

Think you have to spend hours searching the Web for answers to these questions? Think again! The information you need is just a click or two away on the International Wolf Center's Web site. On the home page, www.wolf.org, cruise up to "Learn" at the top of the page. When the drop-down menu appears, click on "Wolves of the World." Up pops a map of the world. You can click on a region or select a specific region from the menu.

Try it! Start by clicking on Europe. Then select Poland. A map of Poland appears, and below the map is concise, at-a-glance information. You will discover that about 600 to 700 wolves now inhabit Poland, that the population is increasing and that wolves are afforded complete legal protection with some exceptions. You will also learn that the main prey for wolves in Poland are roe deer, elk, wild boar, mufflon (bighorn sheep) and moose.

It's addictive. You will find yourself returning to the map of the world and investigating the whereabouts of wolves, how many there are, their legal status and the population trend—increasing, stable or decreasing. You will discover that wolves in Saudi Arabia have no protection and that they live on livestock, carrion and garbage. You will learn that three subspecies of wolves inhabit Russia. India's wolf population of 1,000 to 2,000 wolves is decreasing, and despite no protection, an estimated 30,000 wolves roam wild in Kazakhstan, where the population is stable.

If you have a project for school, "Wolves of the World" will provide "news you can use." Or maybe you are planning a trivia game for your next family get-together. "Wolves of the World" can supply some great questions to stump your resident pack. And you can trust the answers! The information is up-to-date and accurate. If you are a "wolf sponge," one of those people who wants to absorb as much current wolf information as possible, you will find yourself clicking on every continent and country.

And now! Have you found the answers to the questions in the first paragraph? They are just a few clicks away! And for those of you who would rather be reading the latest best seller than doing some research, the answers are below. But it's easier to go to "Wolves of the World" than to read the upside-down answers! It's more fun, too! ■

Cornelia Hutt is an educator and International Wolf Center board member who lives in Purcellville, Virginia.

Answers:
No, wolves are extinct in Japan.
Ethiopia, although there is still dispute about whether this animal is a wolf or a jackal.
50,000 to 60,000
Belgium and Austria
United Kingdom
The saiga is a type of antelope.
Saiga are prey for wolves in China.

Personal Encounter

Wolves Return to Poland's Holy Cross Primeval Forest

by Roman Gula

In February 2006, I received an e-mail from an old high-school friend. He still lives in our hometown in Poland and had come across an article published in the local newspaper that mentioned that wolves lived in a nearby forest, the Holy Cross Primeval Forest. Knowing that I am a biologist whose current research interest is wolves, he mailed me the article. When I read the article, I became curious about this rumor. Apparently, one of the villagers I had grown up with had noticed wolf tracks and had actually seen wolves.

I was quite excited. I do wolf research in the Bieszczady Mountains (part of Polish Carpathians), but I return every year to my hometown and spend a few weeks of my holidays hiking and biking through the Holy Cross Forest and its surroundings. I have always thought there would be enough room for wolves in the forest, but I never imagined that they would manage to come back from the east. I am not a spiritually inclined person, but this time I could not help feeling some kind of connection with those wolves who had returned to the place where I grew up.

Although I had not been in touch with my old childhood acquaintance Artur for more than 20 years, I called him immediately. He is now working as a forestry warden and had also become a hunter and keen naturalist. He told me that he had seen tracks

Włodzimierz Pławecki

Roman Gula, a wolf biologist, was excited to learn that wolves might have returned to the Holy Cross Primeval Forest, near his hometown in Poland. The presence of wolves had been recorded in a radius of 70 kilometers (43 miles) around the forest since the mid-1980s but not in the forest itself.

Looking for signs of wolves in the Holy Cross Forest, Gula and his friends Artur and Krzysztof followed a wolf's trail to a kill site. The snow was stained red with blood and scattered with hair, stomach contents and some bone splinters that had belonged to a roe deer, apparently killed and eaten by wolves.

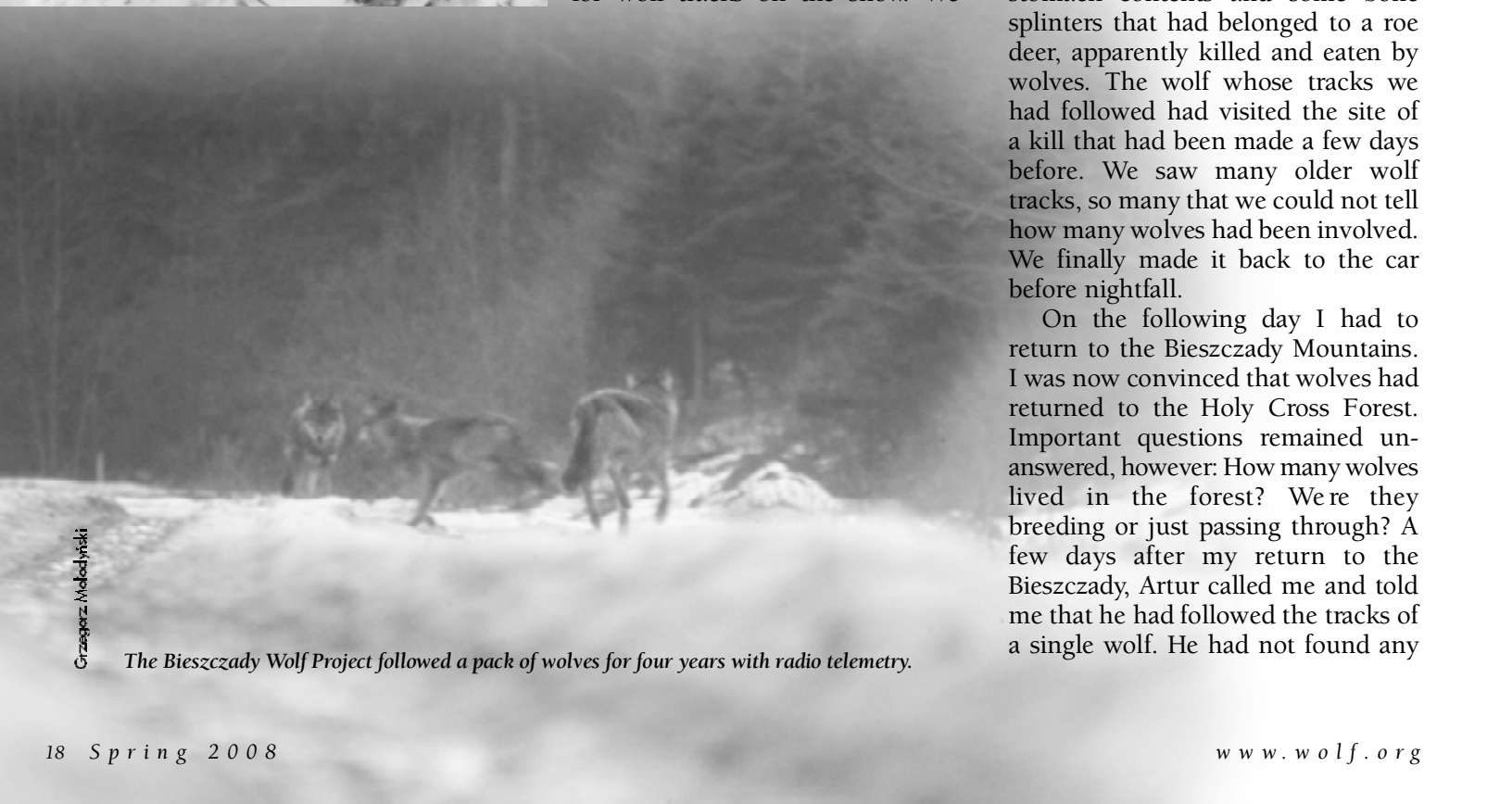
Archives of Bieszczady Wolf Project

that might have belonged to wolves in summer 2005, but he was unsure whether they might simply be dog tracks. Winter 2005-06 was exceptionally harsh in this region; snow appeared in December and lasted until mid-March. So Artur and other forestry people could look for tracks in the snow for three months. Between December and February, Artur regularly came across the tracks of up to three wolves. In January he found a red deer hind that had been killed and partially eaten by wolves. A few days later, two wolves crossed a forest road 15 meters (16 yards) in front of his car. He checked the tracks after the wolves left and saw that there had been three wolves, but one had crossed the road farther from the car, and Artur had missed it. Although Artur's accounts of his sightings and snow tracking sounded reliable, I still wondered about the veracity of his story. I told Artur that I might drop by and spend a couple of days with him so that we might search for tracks together.

A few days later I was driving with Artur and my friend Krzysztof in the Holy Cross Forest, looking for wolf tracks on the snow. We covered a large area in five hours but did not see any tracks. We found some wolf-size dog tracks in the vicinity of one village but no wolves. Both Artur and Krzysztof were ready to go home, but something told me we would find wolves. Direct talks with Artur assured me that all the information he had passed to me was based on his own observations, and I believed him. Thanks to my experience radio-tracking wolves, I knew that these animals are very mobile, and I was convinced that finding tracks was only a matter of how much distance we could cover. However, my companions did not share this optimism, especially as Artur had just heard some gossip about a wolf being poached in the south of the forest a few days before. Knowing the negative view that the local hunters have about wolves, we thought that all three wolves might already be dead.

One hour before sunset we spotted wolf prints on the side of the road. They were just the tracks of a single individual, but I turned on my GPS, and we followed them. After more than two kilometers (1.25 miles), this wolf's trail brought us to a kill site. The snow was stained red with blood and scattered with hair, stomach contents and some bone splinters that had belonged to a roe deer, apparently killed and eaten by wolves. The wolf whose tracks we had followed had visited the site of a kill that had been made a few days before. We saw many older wolf tracks, so many that we could not tell how many wolves had been involved. We finally made it back to the car before nightfall.

On the following day I had to return to the Bieszczady Mountains. I was now convinced that wolves had returned to the Holy Cross Forest. Important questions remained unanswered, however: How many wolves lived in the forest? Were they breeding or just passing through? A few days after my return to the Bieszczady, Artur called me and told me that he had followed the tracks of a single wolf. He had not found any



Grzegorz Malodyński

The Bieszczady Wolf Project followed a pack of wolves for four years with radio telemetry.

prey, but apparently the wolf had been bleeding. The way he described the scene brought to my mind a female in estrous rather than a wounded wolf. This news was promising, but did she have a partner? I kept on thinking of the rumors about the wolf that had been shot and wondered whether it might have been her partner. Unfortunately, a few days later snow rapidly melted in the Holy Cross Forest. The absence of snow temporarily brought an end to our investigations.

For summer 2006 I planned a four-week survey of the Holy Cross Forest. I thought July would be the best time to try to locate wolves by howling. At this time of year, packs still gravitate around rendezvous sites, where the 8-to-12-week-old pups stay and wait for adults to return from the hunt. The day we chose for our first howling experiment was perfect, as a high pressure had brought a calm evening with a clear sky and chilly night. When Krzysztof and I arrived at Artur's home, he suggested a place in the south of the Holy Cross Forest as a good starting point. He mentioned that a forester had told him he had seen wolf scats on the road near that point. As Artur had just been there and had found two fresh scats, he thought that the wolves might be around in the evening. I was not so positive, but I thought it was a good plan to start in the southern part of the forest and then slowly drive back home, north, calling wolves every 2 to 3 kilometers (1.25 to 1.9 miles) on the way.

We arrived at the spot just as the sun set and parked in a small clearing. We noticed many wolf tracks on the sandy road. I howled for the first time at about 10 p.m., and the wolves immediately answered. We heard the entire pack and estimated that it was about 200 meters (650 feet) from us. We counted at least four adults and several pups. One adult was separated from the others, its voice coming from a different direction. My companions were amazed; Artur had never heard wolves before, and Krzysztof had never heard them so close up. I was also amazed, as I had expected to work for all of July before getting an answer. Nothing had prepared me for a reply on the first night, and even less for one on the first call! We had been very lucky. The pack continued howling spontaneously for about an hour, then they apparently moved north.

Throughout July, the wolves replied to our calls 10 times at that same place. I was fairly sure that it must be a rendezvous site and that the den was located nearby. In August, Artur searched the area carefully. He found many places leveled by wolves, bones of prey and even the lower jaw of a wolf pup that had died of an unknown cause. I visited this place in late August. It was similar to the wolf rendezvous sites I have seen in the Bialowieza Forest and the Bieszczady Mountains. We searched around the rendezvous site, but we did not find the den. In fall, Artur regularly saw wolf tracks in mud and sand, and he also found many scats. About Christmas Krzysztof found a dead horse that had been dumped in the forest. Wolves had apparently found the carcass and had been feeding from it. When I went back to the Holy Cross Forest just before New Year's Eve, I found seven scats and many wolf prints on sandy forest roads in the area surrounding the carcass. In mid-January, shortly after the late arrival of snow, Artur found the pack and did many kilometers of snow-tracking.

Wolves in Poland number from 500 to 700, and their range covers about 25,000 square kilometers (9,750 sq. mi.). Wolves in the south are part of the Carpathian Mountains population, the largest in Europe. Wolf habitat in northeastern Poland is connected with occupied wolf habitat in Belarus, the Baltic States, and Russia.

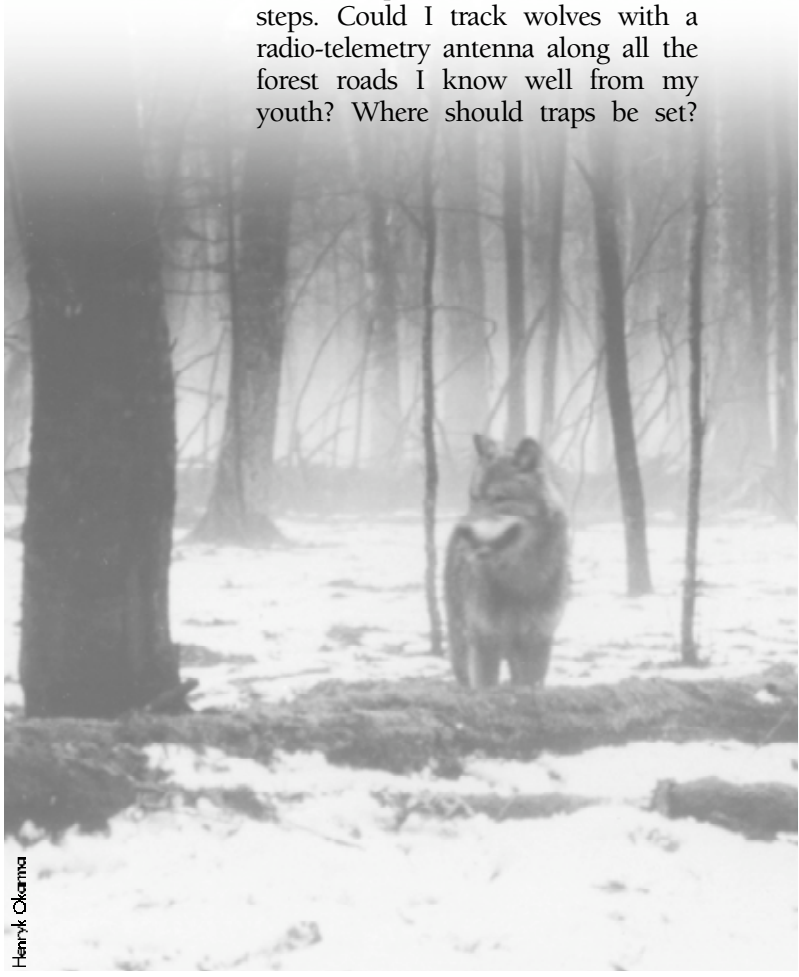
Packs of 2 to 10 individuals (●)occupy territories of 100 to 250 square kilometers (39–98 sq. mi.). Wolves prey on wild ungulates (red deer [Cervus elaphus], *roe deer* [Capreolus capreolus] *and wild boars* [Sus scrofa]).

CORRECTIONS:

"Notes from Home" in the Fall 2007 issue of *Intemational Wolf* contains several errors. The Sigurd Olson (not "Olsen") Environmental Institute of Northland College is in Ashland, Wisconsin, not Michigan. Lynn Lewis was incorrectly named Lynn Davis. In the photo on page 16 Lynn Lewis was mistakenly identified as Pam Troxell. We regret the errors.

In addition, we questioned foresters, hunters and other people about wolves in the region. The presence of wolves had been recorded in a radius of 70 kilometers (43 miles) around the Holy Cross Forest since the mid-1980s but not in the forest itself. The last record of wolves in the Holy Cross Forest was from 1953, when wolves had killed two sheep in a village located near the forest. Wolves had then disappeared, being most likely exterminated during the state-organized killing campaign, as had most wolves in Poland. In the early 1970s probably only about 100 wolves survived in northeast Poland and in the south, in the Carpathians. The persistence of wolves west of the Vistula River was doubtful. In 1975 the status of wolves changed from pest to game species. Since that date, wolves have recovered, and breeding wolves were recorded 40 kilometers (25 miles) southeast of Holy Cross Forest and 30 kilometers (19 miles) northwest in the mid-1980s. One of these packs was entirely poisoned, and the other one disappeared after two years. The other records were single wolves either legally shot until 1995, or poached after 1995, when the status of the wolves was upgraded to a strictly protected species. Apparently the breeding pack we observed is part of general wolf recovery in the region. This process seems to be limited by the poaching of wolves by hunters, rather than by prey numbers or habitat, which I think are sufficient.

Step by step I developed a project on the side of my regular research activities. In cooperation with Artur and with the help of other friends we are now able to monitor wolf presence in the area. We all hope that wolves will be able to survive in the Holy Cross Forest and the region and that our small efforts will contribute to their recovery. But whenever I am there, I cannot help but think about further steps. Could I track wolves with a radio-telemetry antenna along all the forest roads I know well from my youth? Where should traps be set?



Henryk Okarma

Would it be possible to hear the signal of a wolf's radio collar from my mother's house? It is difficult to say if these thoughts will ever become reality, but my mother said, "It seems like wolves will make you a more regular visitor here," and then she smiled. ■

Roman Gula is a research scientist at the Museum and Institute of Zoology, Polish Academy of Sciences. Since 2000 he has lived in Ustrzyki Dolne, a small town in the Bieszczady Mountains, the eastern-most part of the Polish Carpathians, where he is conducting research on the ecology of wolves.

Acknowledgements:

I thank Artur Milanowski and Krzysztof Król for their contributions to the field survey, and Sophie Rouys, David Mech and Mary Keirstead for correction of the text.

Stanisław Strzyżewski

Left: Bartosz Pirga (left) and Roman Gula track wolves using radio telemetry as part of their work for the Bieszczady Wolf Project.

Archives of Bieszczady Wolf Project

Bartosz Pirga (left) and Roman Gula, who work for Bieszczady Wolf Project, handle a female wolf. The wolf's eyes are covered to protect them.

Wolves in Minnesota Have Lost a Good Friend

Karlyn Berg

Jean Braveheart fought for the wolf's protection and helped to enlighten people through education.

Jean Braveheart, founder and director of Minnesota Wolf Alliance, died from a long battle with cancer July 20, 2007. The wolf defined Jean. She believed that its fate was intertwined with Native people and their culture. "What happens to the wolf happens to the earth," Jean would always say. Jean saw great value in this animal both spiritually and ecologically.

Through Minnesota Wolf Alliance, Jean sponsored many events. In winter 1998 she held a rally at the state capitol. In fall 1998 Minnesota Wolf Alliance held its first "Spirit of the Wolf Walk" in Duluth. The following year the second "Spirit of the Wolf Walk" was held in Minneapolis. Many people turned out for these events. As an advisor, Jean represented Minnesota Wolf Alliance to the Minnesota Wolf Roundtable meetings during 1998. All through her battle with cancer, Jean continued to fight for the wolf's protection and helped to enlighten people through education.

Linda Hatfield

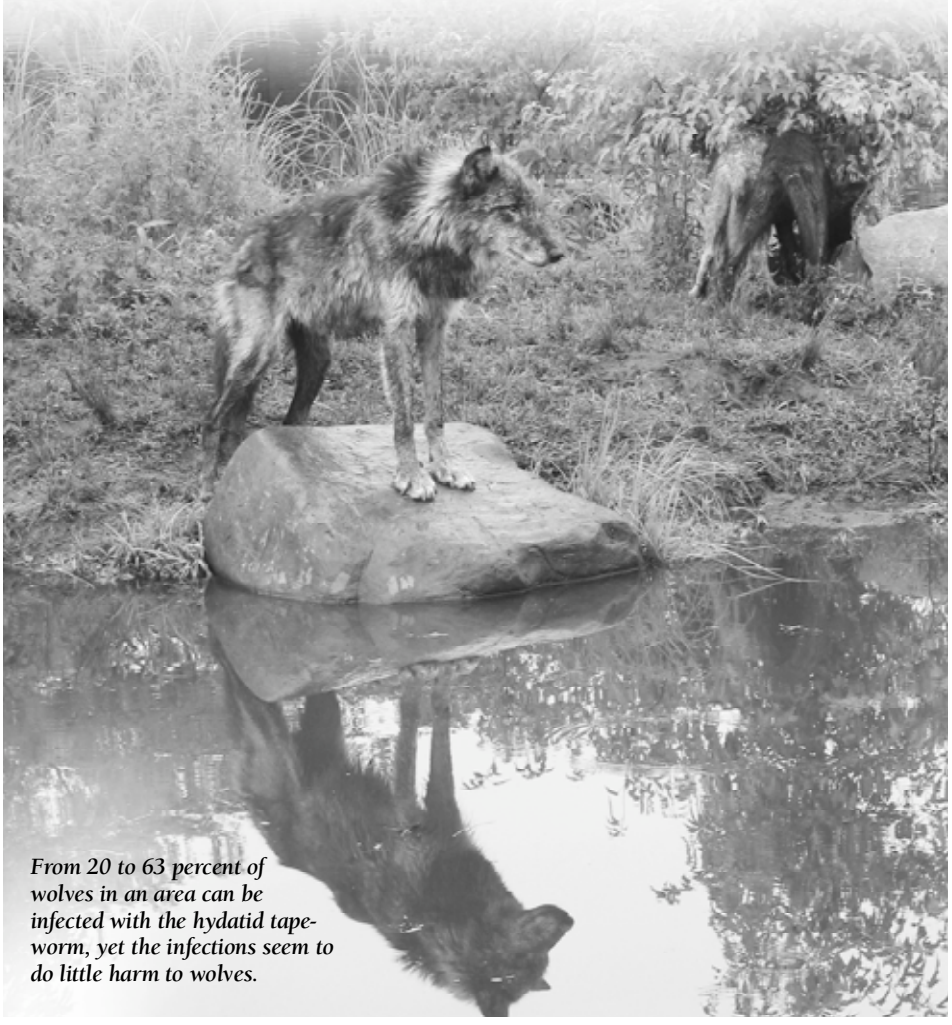
The Hydatid Tapeworm: A Curious Parasite That Has No Fear of the Big, Bad Wolf

by Jay Hutchinson

As many as 25 different kinds of parasitic tapeworms have been recorded from the innards of wolves around the world. One of these, the hydatid tapeworm, is being publicized by some anti-wolf people as a threat to livestock and humans in North America just as wolves are expanding their range into areas where they were once common.

Like many parasites, the hydatid tapeworm follows a bizarre life cycle: it lives within a carnivore, like the wolf, yet needs to spend part of its life inside an herbivore, such as a moose, deer, elk or caribou.

The adults of this tiny tapeworm, which are only as long as a ladybug—about a quarter inch—have a head that attaches to the intestinal wall of a wolf with either suckers or hooks, and a body composed of several segments. Each segment has both male and female sex organs, which produce either self-fertilized or cross-fertilized eggs. The egg-containing segments break off and pass out in the wolf's feces, sometimes contaminating vegetation that a moose or other hoofed host eats, or water that it drinks.



Eileen Jurkovich

From 20 to 63 percent of wolves in an area can be infected with the hydatid tapeworm, yet the infections seem to do little harm to wolves.

Once eaten by a hoofed animal, the eggs hatch into larvae, which bore through the intestinal wall to enter the bloodstream and are circulated around the animal and find a suitable place for further development, usually the lungs or sometimes the liver. There the larvae form cysts, which after about five months reach a centimeter in diameter. The cavities of the cysts are filled with fluid, and the larvae reproduce asexually in them.

The number of cysts found in a host's lungs varies widely. One study found an average of nearly 8 cysts in 23 moose examined. Other studies since the 1930s have found numbers of cysts in moose lungs ranging from 30 to 57, and in one case 250. Some cysts grow as large as ping-pong balls, and one researcher reported finding 10 quarts of fluid in a cyst (size not given).

A considerable portion of a host population may be infected. In studies of moose from Minnesota, Ontario, Saskatchewan, British Columbia and Alaska the percentage infected ranged from 31 to 68 percent. Researchers on Isle Royale, Michigan, believe that the hydatid tapeworm infects a majority of the population. Moose and other herbivores that are heavily infected weaken and probably fall prey to wolves much more easily.

When a wolf eats a hoofed animal with lung cysts, the larval tapeworms attach to the intestinal wall of the wolf and develop into adult tape-

worms, thus completing their life cycle. From 20 to 63 percent of wolves in an area can be infected, yet the infections seem to do little harm to wolves.

Other canids, like coyotes and foxes, can also be the primary host of the hydatid tapeworms because they are likely to feed on wolf-killed carcasses. Infection rates in coyotes can range from 8 to 25 percent of the population. Dogs can be the primary host if they are fed moose remains that are infected with larvae.

A few isolated cases of the secondary larval cyst stage, which usually occurs in hoofed animals, have been found in humans, particularly Native Americans in Alaska. The infections in humans appear to be accidental, requiring the person to have swallowed or breathed great loads of eggs. This seems to have happened when people have fed cyst-filled caribou or moose lungs to their dogs and then drunk water nearby that had become contaminated by the dog feces.

Should we be concerned that the hydatid tapeworm will be spread widely to livestock and even humans as the wolf population increases? After all, populations of this once almost universally despised predator in the western United States have grown to over 1,500 in the past decade or so. And in the Midwest wolf numbers have grown to about 4,000, of which about 3,000 are in Minnesota, where the population merges with Canadian wolves.

The answer is probably not. The fox and coyote populations are already carriers of the hydatid tapeworm and present no apparent problems to humans, even though they live and interact much more closely with humans and their livestock than wolves. And unless people are grossly negligent about sanitation, they rarely become infected with this parasite. ■

Jay Hutchinson is a writer and editor, retired from the U.S. Forest Service's North Central Research Station, in St. Paul, Minnesota. Between travels, he enjoys writing about various natural history subjects, including wolves.

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What Does "Recovery" Mean for Red Wolves?

by Bud Fazio

As shown in the Winter 2007 issue of *International Wolf*, the Red Wolf Recovery Program and its partners and supporters celebrate many restoration and management successes over the past 40 years. Surrounding these successes is the question of what constitutes "recovery" of red wolves, a topic pertinent to many other federally threatened or endangered species listed in the United States. Because historic occurrence and modern recovery criteria differ for each listed species, there is no single definition of "recovery."

Early thinking under the U.S. Endangered Species Act (ESA) recognized a dichotomous threshold of whether a species is "recovered" or "not recovered." However, most professionals in species conservation today realize recovery is a continuum often requiring long-term management. Even after a species is "recovered" and delisted, the species may remain "conservation-reliant" in the face of mounting pressures from growing human populations. Scott and colleagues (2005) described species conservation reliance as requiring continuous management intervention against persistent threats to prevent a future need to relist a species under the ESA.

This brings us to a fundamental question: What constitutes red wolf recovery? One possible scenario is achievement of recovery objectives that include three viable red wolf populations within the species' historic range, where each population is maintained via long-term management agreements. Another possibility is long-term management while retaining listed status, with red wolves maintained by a level of effort similar to that required to manage and monitor delisted gray wolves. A third possible scenario is that human-caused mortality factors become so unmanageable that red wolf recovery becomes limited or declines.

No matter what occurs, one thing is clear: Future success in red wolf recovery will depend largely upon solutions practiced by people. Solutions will come while working with partners in science (e.g., Recovery Implementation Team), propagation (e.g., captive rearing, island propagation programs), and education (e.g., advocates, public outreach).

Will red wolves become fully recovered across all of their former historic range? This is not likely due to widespread human influence. Can we achieve significant new levels of red wolf recovery to the point of delisting the red wolf? Yes, if habitat, invasive species, and human-caused mortality factors are effectively managed or reduced through long-term agreements. If future factors preclude delisting the red wolf, is red wolf restoration a worthy effort? Yes, most definitely, because we fulfill our legal and ethical obligations to restore the red wolf, thus giving it a fighting chance to survive while moving away from human-caused extinction. ■

Bud Fazio, a wildlife biologist, has served as Team Leader of the Red Wolf Recovery Program since 2001 for the U.S. Fish and Wildlife Service in North Carolina.

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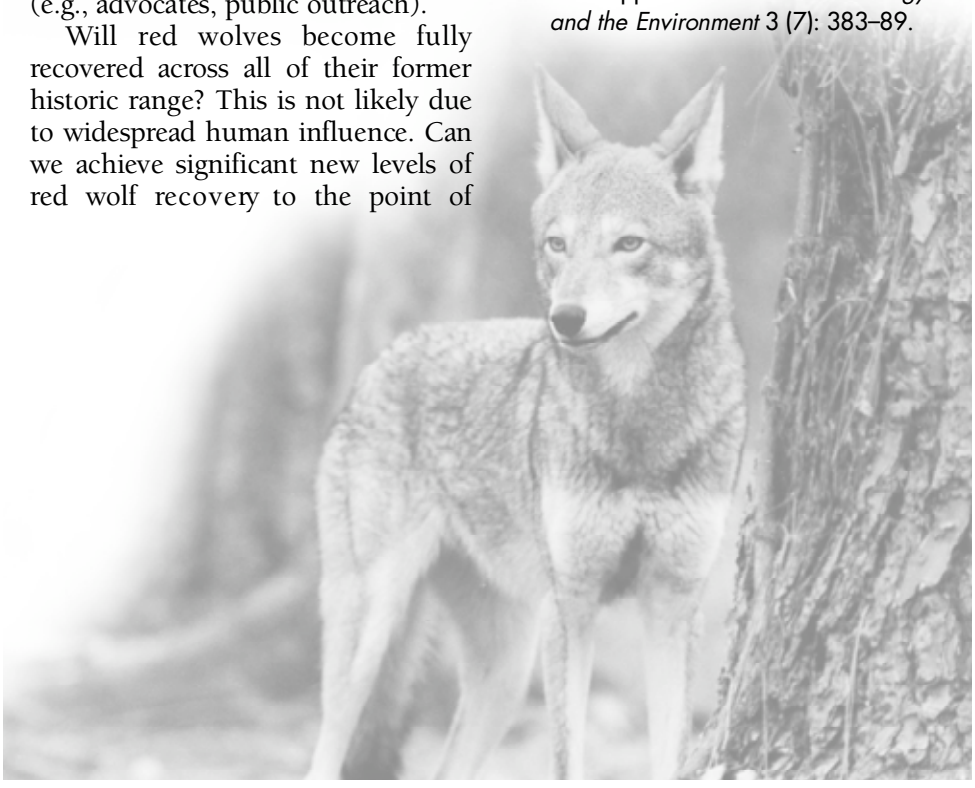

Evelyn L. Mercer

INTERNATIONAL
WOLF

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER
VOLUME 18, NO. 1 SPRING 2008

Features


Paul Stinsa


Sherry Jokinen

Departments

On The Cover

A wolf catches a salmon at Brooks Falls, Katmai National Park, Alaska. See page 4 for story.

Photo by Paul Stinsa.


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WOLF

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International Wolf (1089-683X) is published quarterly and copyrighted, 2008, by the International Wolf Center, 12615 Co.Road 9, Minneapolis, MN 55441, USA.
e-mail: mplspack@wolf.org.

Publications agreement no. 1536338

Membership in the International Wolf Center includes a subscription to *Intemational Wolf* magazine, free admission to the Center, and discounts on programs and merchandise. • Lone Wolf memberships are U.S. $35 • Wolf Pack $60 • Wolf Associate $125 • Wolf Sponsor $500 • Alpha Wolf $1000. Canada and other countries, add U.S. $15 per year for airmail postage, $7 for surface postage. Contact the International Wolf Center, 1396 Highway 169, Ely, MN 55731-8129, USA; e-mail: mplspack@wolf.org; phone: 1-800-ELY-WOLF

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International Wolf is printed entirely with soy ink on recycled and recyclable paper (text pages contain 20% post-consumer waste, cover paper contains 10% post-consumer waste). We encourage you to recycle this magazine.

PHOTOS: Unless otherwise noted, or obvious from the caption or article text, photos are of captive wolves.


Wendy Anderson

Wolf Educator Will Be Missed

Pamela Sue Troxell, 48, died at her home in Mason, Wisconsin, on November 9, 2007. For the past 15 years she conducted educational outreach as the coordinator of the Timber Wolf Alliance at Northland College's Sigurd Olson Environmental Institute in Ashland, Wisconsin. Working closely with the Wisconsin and Michigan Departments of Natural Resources (DNRs), Pam organized workshops to teach others about wolf ecology, trained agency personnel and volunteers to conduct track surveys of wolves, and testified at hearings on regulations and policies affecting wolf management. She expanded Wolf Awareness Week from a Midwest event to a national program. Adrian Wydeven, chief wolf biologist at the Wisconsin DNR, said Pam had a great gift for bringing people together to share interests and concerns about wolves.


Tom Hustad

Pam Troxell was the coordinator of the Timber Wolf Alliance at Northland College's Sigurd Olson Environmental Institute in Ashland, Wisconsin, for 15 years.

Pam recently received the Silver Eagle Award from the U.S. Fish and Wildlife Service (USFWS) for her contribution to the recoveryof gray wolves in the upper Midwest. She also received, along with nine other organizations, a Cooperative Conservation Award from the Department of the Interior for the Timber Wolf Alliance's leadership role in the delisting of the Western Great Lakes wolf population.

Pam's husband, John Olson, said, "Pam's loving personality, faith in family and community, and goal to live simply were ever-present in all of her endeavors." To honor Pam's life, a memorial garden of native plants and a wolf sculpture will be established at Northland College. Contributions can be made to the Pam Troxell Memorial Fund, Associated Bank, 221 4th Ave., Ashland, WI 54806. ■

From the Board Chair

Are Wolves a Canary in the Climatic Coal Mine?

We hear almost daily about the effects of global climate change. At the Center, we are frequently asked, will it affect wolves?

In 1997, snows came early to Ellesmere Island in the High Arctic, where Dr. L. David Mech studies wolves. The treeless terrain and the thick coats of the wolves and their two prey species—musk-oxen and arctic hare—were matted in white. Most significantly, the sparse vegetation that feeds both herbivores was covered in snow by August 25, about a month early. The precipitation continued at double and triple its usual monthly levels, and temperatures dropped below long-term norms.

The following year when Mech made his annual July trip to Ellesmere, he found smaller musk-oxen and arctic hare populations, and no young. He examined the remains of nine musk-oxen that had died during the winter. The devastating snows of 1997 had reduced the time by nearly half when they could graze and build up fat reserves for the winter. Their leg bones held no marrow fat. They had starved.

Nancy jo Tubbs

With fewer prey available, the wolves that frequented the area had not produced pups.

In 2000, the snows began even earlier, on August 14. The following year, Mech found 18 musk-oxen remains and, again, no reproduction among musk-oxen, arctic hare or wolves.

Records show that from 1947 to 1990, snow and colder temperatures held off until around October 1 in this area. The low temperatures and early snows of 1997 and 2000 were the most extreme reported in 53 years. It seems likely that these anomalies are symptomatic of global climate change.

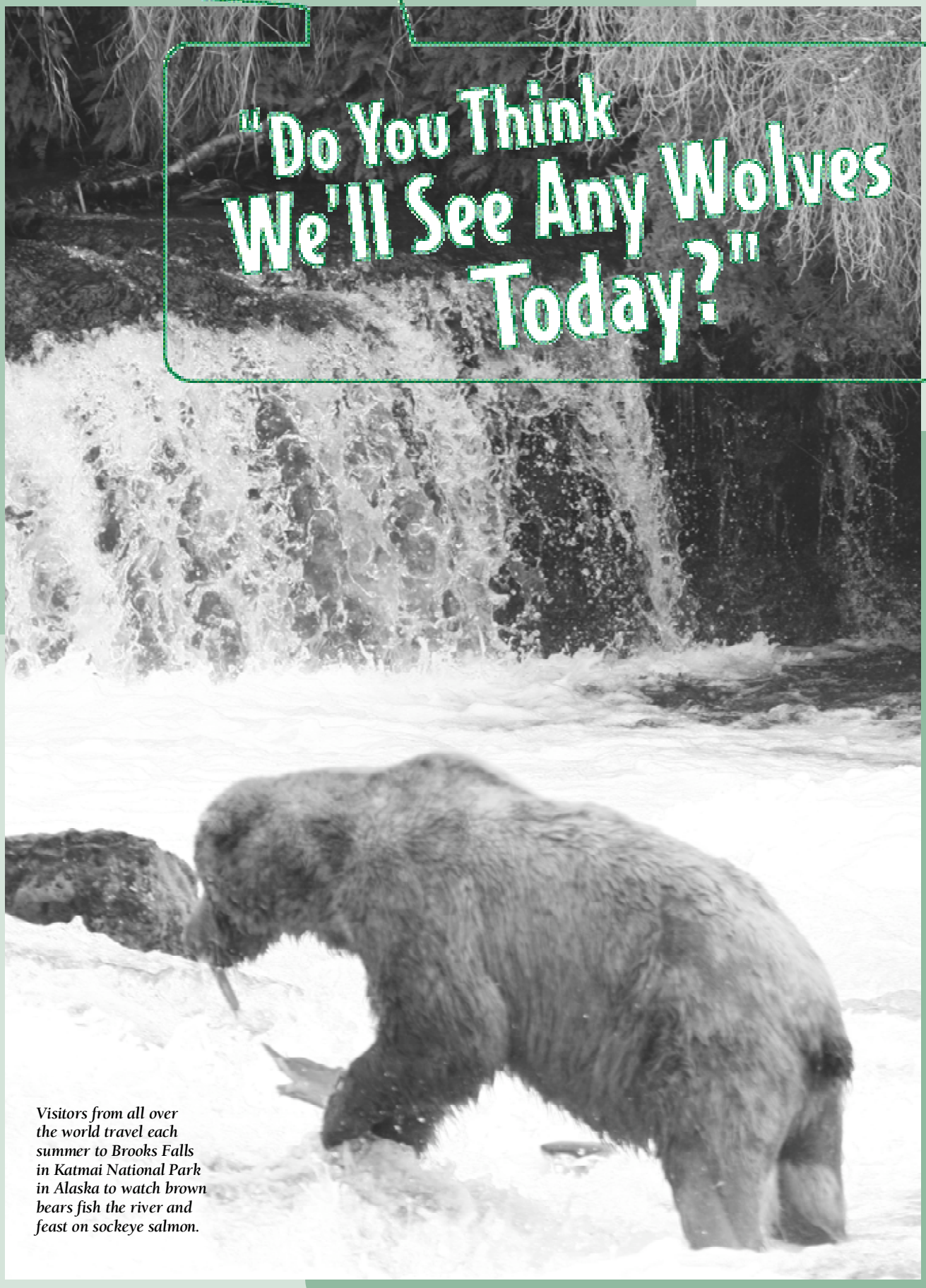
As the species of Ellesmere were affected by dramatic weather shifts, so may others be. On Isle Royale in Lake Superior, moose are bedeviled by winter ticks that benefit from increasingly warm spring weather. The ticks feed on the island's moose in such numbers that the moose become anemic from loss of blood. They scrape against trees, removing hair, and become less able to retain body heat in winter.

Because Isle Royale's wolves rely almost exclusively on moose for food, wolf numbers there are in decline. Again, a cascading series of consequences, beginning with climate change, is resulting in less food for the wolf population.

Colder temps and early snows near the North Pole and warmer springs on an island in Lake Superior may both take their tolls on wolf numbers. Could climate change negatively affect wolves? Two instances suggest the answer is yes. ■

Nancy jo Tubbs

"Do You Think We'll See Any Wolves Today?"



Visitors from all over the world travel each summer to Brooks Falls in Katmai National Park in Alaska to watch brown bears fish the river and feast on sockeye salmon.

Text and photos by PAUL STINSA

Brooks Falls in Katmai National Park in Alaska has been described as the premier bear-viewing location on Earth. Visitors from all over the world travel each summer to the remote Alaskan wilderness to watch brown bears fish the river and feast on sockeye salmon. The midsummer return to the falls of hundreds of thousands of spawning sockeye salmon attracts one of the largest concentrations of brown bears found anywhere. If you have seen photos or video of a giant brown bear with his mouth open wide, sitting atop a fast-moving waterfall, about to catch a leaping salmon in midair, the images were likely taken at Brooks Falls.

After watching the bears repeatedly catching salmon, people would be surprised to learn that the bears are not the most effective salmon catchers at the falls. In July 2007, I had the pleasure of watching a female wolf enter the river and catch 15 salmon in just over an hour of fishing.

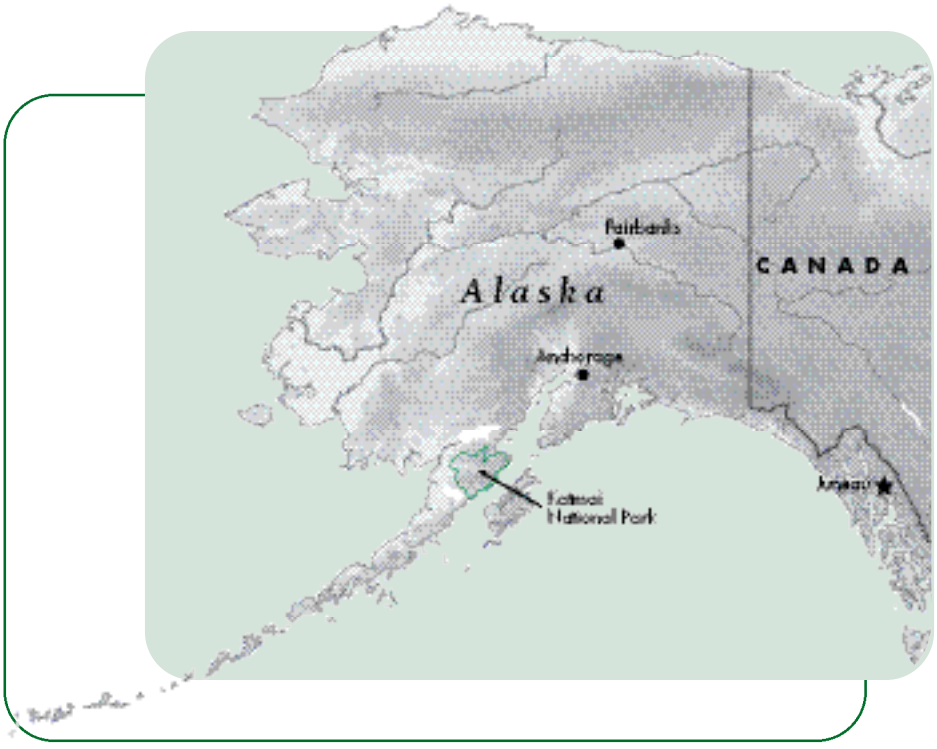
Brooks Falls is located about 265 miles southwest of Anchorage in the vast and rugged Katmai National Park (see map). Just getting to the park can be an adventure since there are no roads and visitors must fly into the park on floatplanes. The Brooks River flows for about two miles from Brooks Lake to Naknek Lake. Most trips to Katmai begin on the shores of Naknek Lake near the mouth of the river, at Brooks Camp. Newly arriving visitors are immediately put through a park service orientation class about proper behavior around bears. If I had any doubts about seeing bears on this trip, they were put to rest during the middle of my orientation class when the park ranger had to stop speaking and chase a bear away, just outside the door I had entered five minutes earlier.

With bear class over, I left the camp and headed out on the trail to Brooks Falls. If there are no bears blocking the trail, the falls are about a 15-minute walk from camp. The floating bridge near the camp is the first major obstacle along the way. When the water level in the river is low, as it was this year, female bears find this area to be a haven for raising cubs and catching fish in the pools near the bridge. So often the bridge would be closed for hours at a time, as the cubs and their mothers played and slept near the bridge, preventing bear watchers from walking upriver to the falls. Having been told this by the ranger, I took the opportunity to cross the bridge while it was open. I was lucky, because moments later the cubs woke up and began playing near the bridge, and people were unable to cross for several hours.

After a nervous walk through the dense forest, constantly clapping my hands and speaking, "Hey Bear!" to alert bears to my presence, I arrived at the falls viewing platform at mid-morning. Only about six or seven people were there. The viewing platform holds 40 people, and at times there are so many that the park rangers limit viewing time to one hour in an effort to fairly accommodate all visitors. But on this day, it was overcast and looked like rain could pour at any moment, so I imagine many people stayed behind at camp.

It is not unusual to see more than a dozen bears near the falls simultaneously. It quickly becomes apparent that there is a clear pecking order among the bears, and they are not comfortable being near other bears. Most of the bears near the falls are large males, and they do not hesitate to chase smaller bears away from the prime fishing areas immediately above and below the falls.

On this day, only two bears were fishing at the falls when I arrived. A large male was in the pool below the



falls, and a smaller male chased salmon about 50 yards downriver. Almost a dozen shredded salmon carcasses in the shallow water in front of the viewing stand pointed to recent bear activity. While photographing the large male, I noticed some of the people move to the right side of the platform and lean over to look down. This is usually a sign that a big male bear is approaching from the woods and getting ready to walk out into the pool. However, when I looked closely into the woods, I was surprised to see a wolf had appeared and was looking out into the river.

As an amateur photographer, I am always scrambling to try and get the perfect photo. Between choosing lenses and fidgeting with camera settings, it's very difficult to capture a wonderful moment in time with the camera. Add dark skies and skittish animals, and it is not surprising that I didn't get a good shot of this brief encounter with a wolf. I chuckled to myself as I thought about a conversation earlier that morning. As we flew into the park, a nice fellow from Wisconsin said to me, "Do you think we'll see any wolves today?" Having traveled from Illinois, I thought to myself, "Yep, he's certainly from Wisconsin. He's come to the bear capital of the world, and he's wondering if he'll see a wolf." In all of my researching and preparation for this trip, I had never seen any mention of wolves, and I thought it was crazy to think we'd see one. I had just been proved wrong, and I would be even more astounded moments later.

After trotting under the viewing platform, the wolf disappeared into the tall grass upriver, near the top of the fish ladder. The wolf reappeared close to a bear fishing above the ladder, but the wolf soon vanished, and we all thought we had seen the last of it. About half an hour later though, the wolf appeared on the opposite side of the river, below the falls. There were still two bears—the large male and a smaller male—fishing in the river. The wolf appeared to be eyeing the salmon carcasses in the shallows. It repeatedly walked along the shore, looking like it would make a dash out into the river at any moment and grab the leftovers.

At this point, the smaller bear noticed the wolf and headed toward it with its head lowered, moving side to side. It was clear the bear was going to chase the wolf out of the river, and moments later the wolf headed up the bank and into the woods. However, in doing this, the smaller male had attracted the attention of the large male, and moments later was being chased out of the river himself. The larger male must have had enough fish, because he too left the river, and there were no bears fishing at the falls. For a few minutes,

The wolf slowly crept through the shallow water along the rock wall below the falls (opposite). As the wolf neared the base of the falls, it dove headfirst into the pool (above).

nothing was happening at the falls, and some of the viewers left the platform to head back to camp. This would prove to be a mistake, as the wolf soon came trotting down the riverbank and into the water across from the viewing platform.

I stood on the platform, scrambling to set the camera properly to photograph a dark, moving subject against a black background on an overcast day. I watched intently as the wolf slowly crept through the shallow water along the rock wall below the falls, sneaking up on the resting salmon from downstream. As the wolf neared the base of the falls, it dove headfirst into the pool. In a flurry of splashing water, it pulled its head out of the river with a salmon, desperately flopping, clamped in its jaws. The wolf then cautiously walked downriver and ran up the trail into the woods.

The wolf appeared to be eyeing the salmon carcasses in the shallows. It repeatedly walked along the shore, looking like it would make a dash out into the river at any moment and grab the leftovers.

The visitors on the platform looked at each other in surprise at how quickly the wolf had caught a salmon dinner. It had not been in the river for more than a couple of minutes before making a catch. Nobody on the platform, including the park ranger, had ever heard of this behavior from a wolf, much less witnessed it. We all felt as though we had received a unique bonus on our bear-viewing trip. As we were discussing our good fortune, we were amazed to see the wolf coming back down the trail and

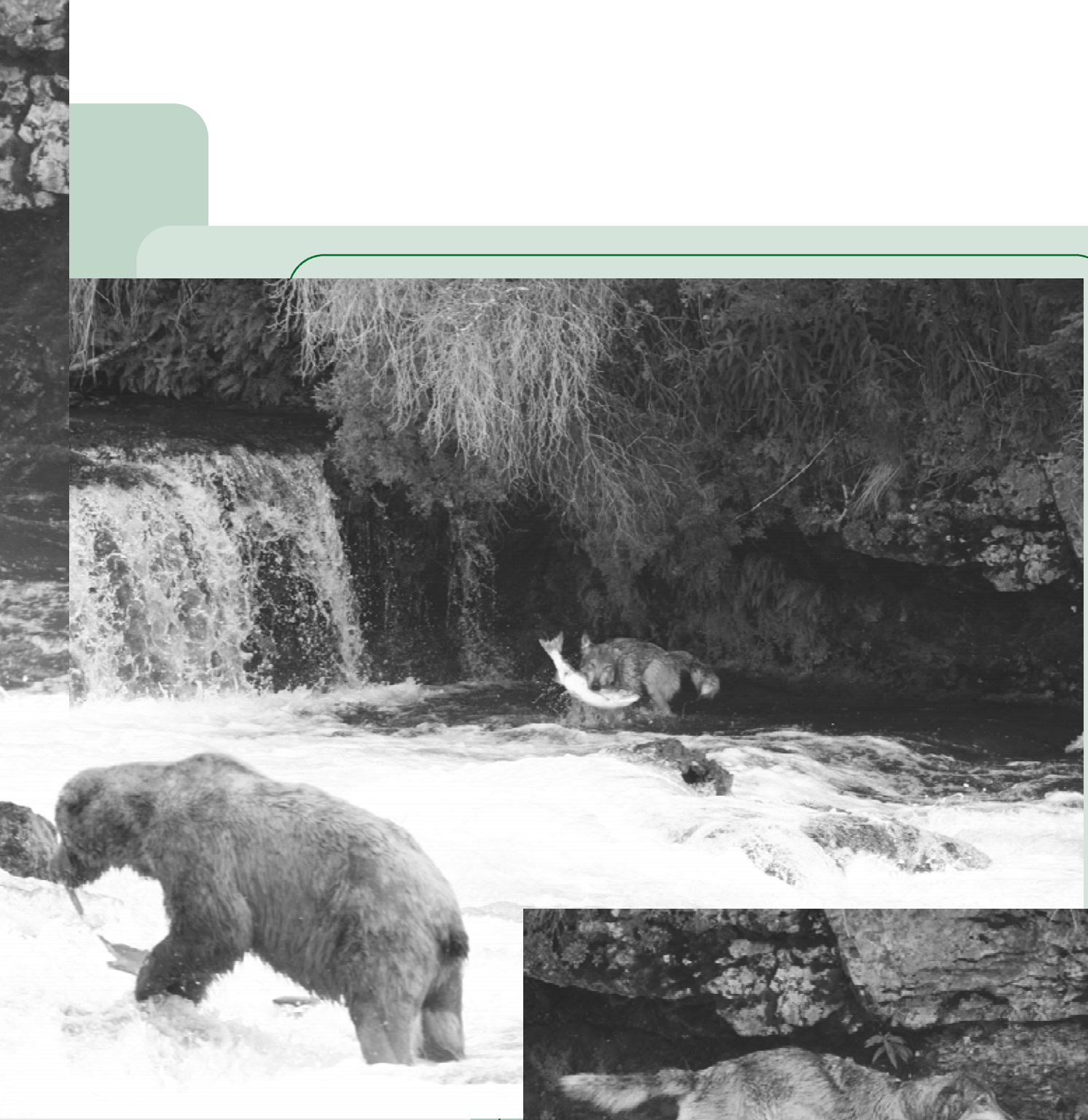
In a flurry of splashing water, it pulled its head out of the river with a salmon, desperately flopping, clamped in its jaws.

entering the river again, less than ten minutes since it had caught the first fish. The wolf again entered the river, walked up to the salmon below the falls, dove into the pool, and came up with another six-pound dinner.

Over the next 50 minutes, the wolf repeated this action 13 times. That's 15 river-fresh salmon in just over an hour. Because the wolf clearly did not eat all the fish it caught, I suspect it may have been feeding pups hidden in the woods above the river. Also amazing is that a large male bear arrived below the falls and started fishing within 20 yards of the wolf after it had caught its seventh fish. The bear never seemed bothered by the wolf, and I was fortunate to photograph both the bear and the wolf feeding simultaneously on the salmon just below the falls. Because the bridge downriver had been closed the whole time the wolf was feeding, few people were on the viewing platform to see this. The crowd of people held up for several hours arrived just as the wolf was finishing. I had been fortunate to witness a rare event and managed to shoot photos of all 15 salmon catches by the wolf.

When I think of the risk and difficulty required to evade territorial brown bears to either feed pups or hide the dead fish in the woods without being attacked, I'm amazed at the intelligence shown by the wolf while fishing at Brooks Falls. During my four-day stay at Katmai, I never saw a bear come close to that level of efficiency. What appeared obvious to everyone watching that afternoon was that this wolf had fished like this before. Its fishing skill was not an accident but rather a repeatable, successful process. The wolf had no intention of scavenging the leftovers from the bears. It had managed to catch all 15 fish and take them into the woods, returning each time by the same trail, without coming into contact with the bears walking in the forest above the river.

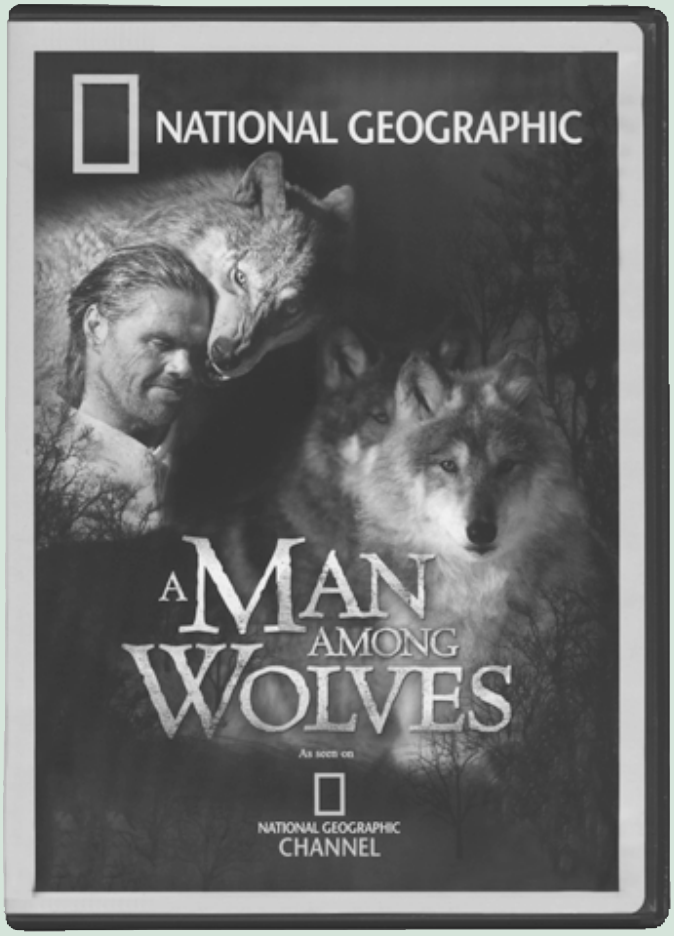
I plan on returning again to Brooks Falls in the future for more photography. It will be tough to top my last trip, but I hope to again witness the size and power of the brown bears and the intelligence of the wolves as they both partake in the incredible feast offered by the sockeye salmon on their spawning journey. ■



Paul Stinsa is Director of Strategic Sourcing - Information Technology for a major airline. He is an avid amateur photographer who hopes someday to combine his hobbies of photography and travel into a new career.

Sensational Geographic

by NANCY GIBSON



My choice for this year's sci-fi award goes to National Geographic cable television. *Survivor* and *Fear Factor* meet National Geographic. It is a painful transition. Two recently aired National Geographic shows, *A Man Among Wolves* and "Shadow Stalkers," an episode of *Hunter and Hunted*, have shattered our neat picture of National Geographic. One depicts a self-anointed wolf expert caged with three captive wolves in a small enclosure in England under the delusion he can teach them how to survive in the wild. The other show concerns a grisly death turned corrosive mystery in which an anthropologist, not a wildlife biologist, is asked to solve the highly charged case of a human possibly killed by wolves in the Canadian wilderness. Wild furry animals with big teeth on the move in the night have always been a source of emotional conflict. National Geographic capitalizes on these feelings and devises overbaked scenes with wolves posed either as villains or friends. The ultimate victim is the viewer.

Shows like these represent a precarious plight for the esteemed National Geographic organization, which is quickly spiraling to the depths of tabloid TV. National Geographic is a vast multimedia holding with tentacles in eight magazines, movies, education tools like their Geographic Bee, exotic expeditions and now a cable TV station. All these subsidiaries share the esteemed brand that started in 1888 with its amazing content from around the globe. Its mission statement says its "programs support critical expeditions and scientific fieldwork." Sound science and National Geographic used to share the burden of getting the right information to the right people to help make the right decisions. But no longer—the National

Sound science and National Geographic used to share the burden of getting the right information to the right people to help make the right decisions.

Geographic cable station has fallen prey to the lure of sensational TV and is attempting to survive on nature's oddities.

I have raised far more captive wolves than the "Man Among Wolves," Shaun Ellis. I also learned from the ultimate teachers, a wild wolf pack on Ellesmere Island for three summers along with Dr. L. David Mech. Rearing 10-day-old pups into adulthood takes a trained group of individuals, just like a pack. When humans take a break from the wolves, others need to be present for consistent care that includes feeding, immunizations and critical handling to limit time under the care of a veterinarian. Ellis did a disservice to the longtime experience of wolf caregivers, if, in fact, he was the sole caregiver, as implied.

In addition, I have worked in the media for 25 years and have two Emmys for my stints with the Public Broadcasting Service—work focused on wildlife. With this background, I am appalled at these sensational productions. Everyone in TV knows that kids and animals attract viewers. Add well-honed techniques of repetition, hyperbolic scripts, intense close-ups, pulsing music, intriguing light, disturbing sounds, real or perceived controversy, and the recipe for keeping viewers transfixed is complete. But the National Geographic audience expects and deserves more. Wildlife needs respected science, education and help, not hype.

International Wolf Center

Some people view wolves as serial killers while others hold them in reverence. These rivalries make headline news, but the truth usually lies in the middle steeped in science, not fiction.

A Man Among Wolves repeats disgusting scenes paired with gripping narration. Seven times the audience is faced with Ellis crouched over a deer carcass, gnawing on a frayed liver and growling. Gnarling teeth are accompanied with dramatic words: "Never will [he] be in greater danger," and he acts "like any other wild animal." The audience may be gripped in the fear-factor face-off, but I am incensed. Ellis's goal is to release these captive-raised wolves in the wild, and then he wants to live with a wild pack! This should have been a Disney cartoon paired with *Jungle Book*. Snarling Ellis forgets wolves howl and hunt just fine without human intervention.

In the introduction National Geographic elevates the *Homo sapiens* Ellis to hero status with outrageous narration of "few who dare" paired with the "always feared" wolves. Where do all the legitimate wolf scientists and educators fit into this

sensational scenario? Where is the accountability? National Geographic cable TV finally summons up some credible scientists for the show. A few knowledgeable quotes and scenes and the audience is comforted with the old brand of authority. The treachery is complete. Just maybe these wolves hand-raised by this amateur can be candidates for release to the wild. Just maybe wolves raised with humans at the edge of their enclosure won't be tempted by these familiar smells and movements. Or maybe not . . . stay tuned.

The National Geographic film crews then move into the wilderness of northern Saskatchewan, Canada, the land "of the most ferocious predators on earth," according to the narrator. In fading light, the series *Hunter and Hunted* plays sleuth to get to the bottom of what killed 22-year-old Kenton Carnegie. In the process the cable TV station falls into the pit of disgusting and disrespectful productions. A young man is dead from bad judgment, but National Geographic is there to illuminate each fatal flaw over and over, naming the likely culprit: wolves. An actor re-enacts Carnegie's final moments. Five times the camera focuses on feet running through thick forests accompanied by heavy gasps of breath. Just for the record, forest trees are short and thin at this latitude. Three times the actor lies face down in the snow while moonlight illuminates the hysterical manipulations of trained dogs ripping at his pants—hardly the death grip of wolves. Scenes of bloodied boots being dragged through the snow are interchanged with scenes of wolves tearing apart their dinner in Yellowstone National Park. Scenes of wild wolves in the park are shown, while the script details the predatory qualities of wolves, who, we are told, are able to run 35 miles an hour for hours? A moon travels across the screen as the narrator says, "Seems someone has been hunted down." The light fades more, and wolf eyes are conveniently found against the snow-covered forest, "Winter makes predators hungry," the narrator adds.

Quick cut to the previous year, when a 55-year-old miner decides to run two miles home in heavy winter boots in thick woods, and a lone wolf attacks. "Solitary wolves are desperate," says the rising voice accompanied by chilling night sounds. The wolf attacks, but somehow the miner's colleagues spot their friend in the darkened woods and rescue him from its deadly jaws. Whew, he was saved, but the audience is not. The suspenseful encounter is aired three times accompanied by horrific sounds of the actor and trained canine. There really was a serious encounter between a wolf and human. It happened along a road suitable for running, and yes, the man was able to get the wolf in a headlock. The wolf totally submitted, urinated and whimpered. Isn't that sensational enough?

The evidence is mounting against wolves, the "consummate hunters," so we head back to the scene of the Carnegie crime in Saskatchewan. Predator-versus-prey struggles from Yellowstone Park are shown, while Carnegie is portrayed as a vulnerable human lacking some common sense. And yes, the tightly wound plot returns with a full moon and repetition of ghostly scenes and sounds.

Finally, in the concluding moments, the narration cuts the spectacular adverbs and tones, the light returns, and real wolf experts are consulted. The last few minutes reveal that wolves and a bear might have been the cause of Carnegie's demise. But then again maybe not—the real rogues could be humans. Humans inadvertently feeding wild animals at garbage dumps breaks down a wildlife barrier. Humans thrilled to have these wild dogs in their midst capture and encourage close-up photos. A colleague of Carnegie, holding a large stick, was photographed with a wolf just days before Carnegie's death. These actions lead to dangerous encounters between typically elusive wolves and humans and may have been enough to cause the early demise of Kenton Carnegie.

Some people view wolves as serial killers while others hold them in

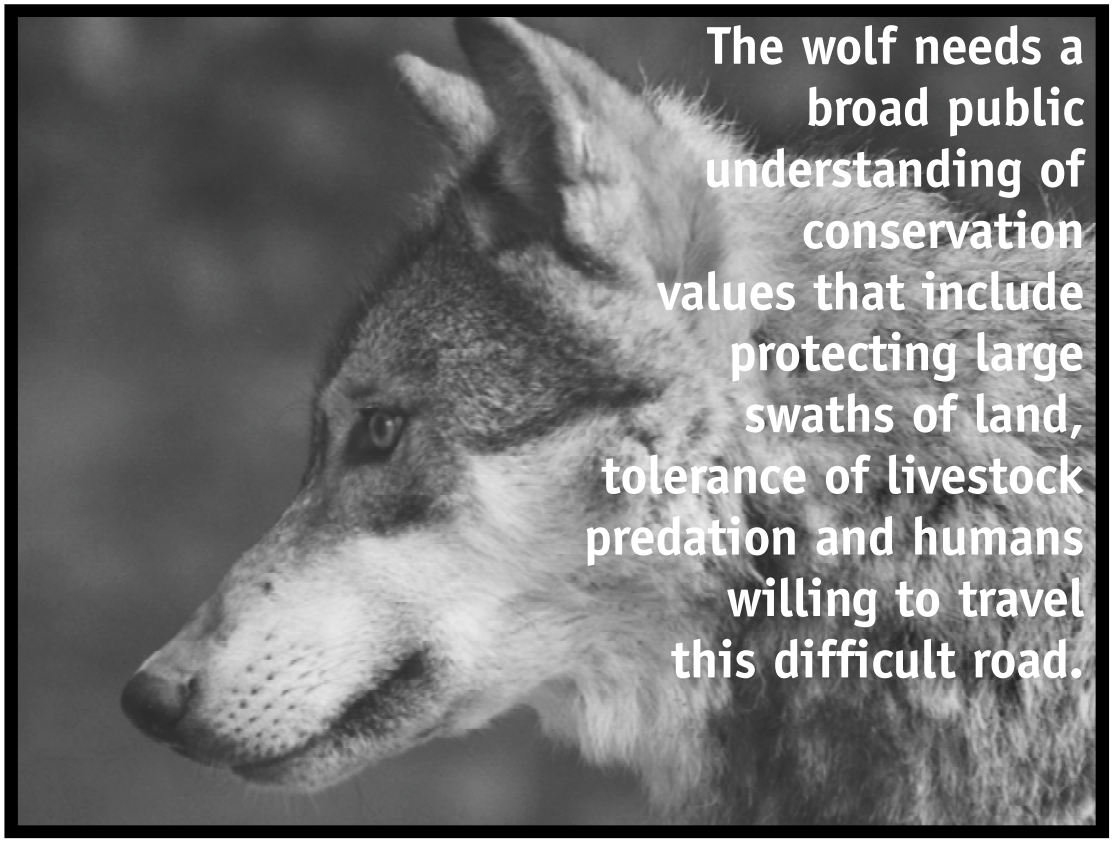
Unlike in the National Geographic episode, retired wildlife biologist Mark McNay and wolf biologist Paul Paquet were called upon to testify about the grim killing of Kenton Carnegie at a coroner's inquest in Prince Albert, Saskatchewan, in November 2007. Three days of "dogged debate" and testimony resulted in a six-person jury's finding that the 22-year-old engineering student was killed by a pack of four wolves just a half-mile from a remote mining camp. The jury sided with McNay, who studied wolves for more than 13 years in Alaska and spent two of those years researching wolf attacks in North America. He stated that nearly all of those attacks involved "habituated" or "food-conditioned" wolves, as was the case in Carnegie's death.

reverence. These rivalries make headline news, but the truth usually lies in the middle steeped in science, not fiction. Science used to be National Geographic territory and this cable TV program feels like a eulogy to an old trusted friend.

To test my reaction against another, I sent video copies to a 13-year-old girl fascinated but schooled about wolves to get her assessment. She called Ellis "weird, not a normal person." *Hunter and Hunted* elicited comparisons to a "horror movie that was creepy with too much blood." Her recommendations for the shows had caveats that good wolf background is needed first.

Production may be under way for a sequel to *A Man Among Wolves:* Ellis attempting to live with a wild pack in Finland. The production crew claims that this "Wolfman" series "clearly portrayed the species in a more positive light than has been attained for many years." The wolf doesn't need this simplification of complex ecological and survival struggles. The wolf needs a broad public understanding of conservation values that include protecting large swaths of land, tolerance of livestock predation and humans willing to travel this difficult road. Surging human populations are gobbling up natural resources at unprecedented speed. National Geographic cable TV should be in the driver's seat on this issue since wildlife has been National Geographic's bread and butter for more than a century. Instead, the TV show is stealthily circling Hollywood, looking for vantage points of exploitation. Next up is "Feral Children." Remember kids and animals are screen favorites. What will be next? ■

The wolf doesn't need this simplification of complex ecological and survival struggles.



Becki Johnson

Nancy Gibson is a co-founder of the International Wolf Center and is currently on the board. She hosted the Emmy Award–winning show Newton's Apple *for 13 years and has won numerous awards for her work in conservation.*

INTERNATIONAL WOLF CENTER

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Sean Staelens was an Eagle Scout, loved the outdoors and had a lifelong passion for wolves. He visited the International Wolf Center often, starting when he was eight years old. Sean recently graduated from Northland College in Ashland, Wisconsin, with a degree in biology.

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Thank You

Tracking the Pack

Planning for Pups

by Lori Schmidt, Wolf Curator, International Wolf Center

The International Wolf Center manages an exhibit of wolves at its educational facility in Ely, Minnesota. Rather than maintaining multiple species, like a zoo, we focus our care on a limited number of ambassador wolves, which help us achieve our mission of advancing the survival of wolf populations by teaching about wolves, their relationship to wildlands and the human role in their future.

We see that visitors' experiences benefit from viewing captive wolves, especially socialized wolves, from which they can get a glimpse of individual traits of wolves and better understand the social characteristics of the species that make it a successful top-level predator. Portrayals of wolves often emphasize their predatory behavior, whereas the Center provides a view of the intricate pack life and organization that keep the wolves together as a social unit.

To maintain a cohesive social pack, new life must be added to the exhibit. Our management plan calls for two pups to be added to the exhibit approximately every four years, allowing enough time for the pack to cohere but not so much that new pups would be too stressful for the older animals. With this timing the pack can focus on providing a place in the rank order for the maturing pups, keeping the pack more cohesive and delaying the inevitable retirement of the older wolves until 10 to 12 years of age.

Since our ambassador wolves are spayed and neutered, we must look outside of our organization to find new pups. In 2008 pups will come from the Wildlife Science Center (WSC) in Forest Lake, Minnesota. The WSC has conducted research on captive wolves and provided educational programs and science-based training for the past two decades. It is a professional facility that breeds wolves only on request from other professional facilities and has strict standards about where the pups are placed and how they will be maintained.

Newly born animals of any species are sensitive to their new environment and can be easily stressed by human crowds and especially by human handling. Wolf care staff will always have the pups' safety in mind when scheduling public display. Watch the Web site at www.wolf.org for details of the pups' arrival and the schedule for public viewing. ■

Kristin Radamacher

The International Wolf Center's management plan calls for two pups to be added to the exhibit in Ely, Minnesota, approximately every four years. Maya (top) and Grizzer were added in 2004.

Wolves of the World

Wolves of the World on the Web

by Cornelia Hutt

Are there wolves in Japan?

In what country are wolves sometimes called "ky kebero" or the "Abyssinian wolf"?

How many wolves live in Russia?

In what western European countries are there no established populations of wolves?

In what nation are private individuals proposing to reintroduce wolves in the wild?

What are saiga, and where do they live? What do saiga have to do with wolves?

At the International Wolf Center's Web site, you can go to "Wolves of the World" and click on a region to get up-to-date and accurate information about wolves.

Think you have to spend hours searching the Web for answers to these questions? Think again! The information you need is just a click or two away on the International Wolf Center's Web site. On the home page, www.wolf.org, cruise up to "Learn" at the top of the page. When the drop-down menu appears, click on "Wolves of the World." Up pops a map of the world. You can click on a region or select a specific region from the menu.

Try it! Start by clicking on Europe. Then select Poland. A map of Poland appears, and below the map is concise, at-a-glance information. You will discover that about 600 to 700 wolves now inhabit Poland, that the population is increasing and that wolves are afforded complete legal protection with some exceptions. You will also learn that the main prey for wolves in Poland are roe deer, elk, wild boar, mufflon (bighorn sheep) and moose.

It's addictive. You will find yourself returning to the map of the world and investigating the whereabouts of wolves, how many there are, their legal status and the population trend—increasing, stable or decreasing. You will discover that wolves in Saudi Arabia have no protection and that they live on livestock, carrion and garbage. You will learn that three subspecies of wolves inhabit Russia. India's wolf population of 1,000 to 2,000 wolves is decreasing, and despite no protection, an estimated 30,000 wolves roam wild in Kazakhstan, where the population is stable.

If you have a project for school, "Wolves of the World" will provide "news you can use." Or maybe you are planning a trivia game for your next family get-together. "Wolves of the World" can supply some great questions to stump your resident pack. And you can trust the answers! The information is up-to-date and accurate. If you are a "wolf sponge," one of those people who wants to absorb as much current wolf information as possible, you will find yourself clicking on every continent and country.

And now! Have you found the answers to the questions in the first paragraph? They are just a few clicks away! And for those of you who would rather be reading the latest best seller than doing some research, the answers are below. But it's easier to go to "Wolves of the World" than to read the upside-down answers! It's more fun, too! ■

Cornelia Hutt is an educator and International Wolf Center board member who lives in Purcellville, Virginia.

Answers:
No, wolves are extinct in Japan.
Ethiopia, although there is still dispute about whether this animal is a wolf or a jackal.
50,000 to 60,000
Belgium and Austria
United Kingdom
The saiga is a type of antelope.
Saiga are prey for wolves in China.

Personal Encounter

Wolves Return to Poland's Holy Cross Primeval Forest

by Roman Gula

In February 2006, I received an e-mail from an old high-school friend. He still lives in our hometown in Poland and had come across an article published in the local newspaper that mentioned that wolves lived in a nearby forest, the Holy Cross Primeval Forest. Knowing that I am a biologist whose current research interest is wolves, he mailed me the article. When I read the article, I became curious about this rumor. Apparently, one of the villagers I had grown up with had noticed wolf tracks and had actually seen wolves.

I was quite excited. I do wolf research in the Bieszczady Mountains (part of Polish Carpathians), but I return every year to my hometown and spend a few weeks of my holidays hiking and biking through the Holy Cross Forest and its surroundings. I have always thought there would be enough room for wolves in the forest, but I never imagined that they would manage to come back from the east. I am not a spiritually inclined person, but this time I could not help feeling some kind of connection with those wolves who had returned to the place where I grew up.

Although I had not been in touch with my old childhood acquaintance Artur for more than 20 years, I called him immediately. He is now working as a forestry warden and had also become a hunter and keen naturalist. He told me that he had seen tracks

Włodzimierz Pławecki

Roman Gula, a wolf biologist, was excited to learn that wolves might have returned to the Holy Cross Primeval Forest, near his hometown in Poland. The presence of wolves had been recorded in a radius of 70 kilometers (43 miles) around the forest since the mid-1980s but not in the forest itself.

Looking for signs of wolves in the Holy Cross Forest, Gula and his friends Artur and Krzysztof followed a wolf's trail to a kill site. The snow was stained red with blood and scattered with hair, stomach contents and some bone splinters that had belonged to a roe deer, apparently killed and eaten by wolves.

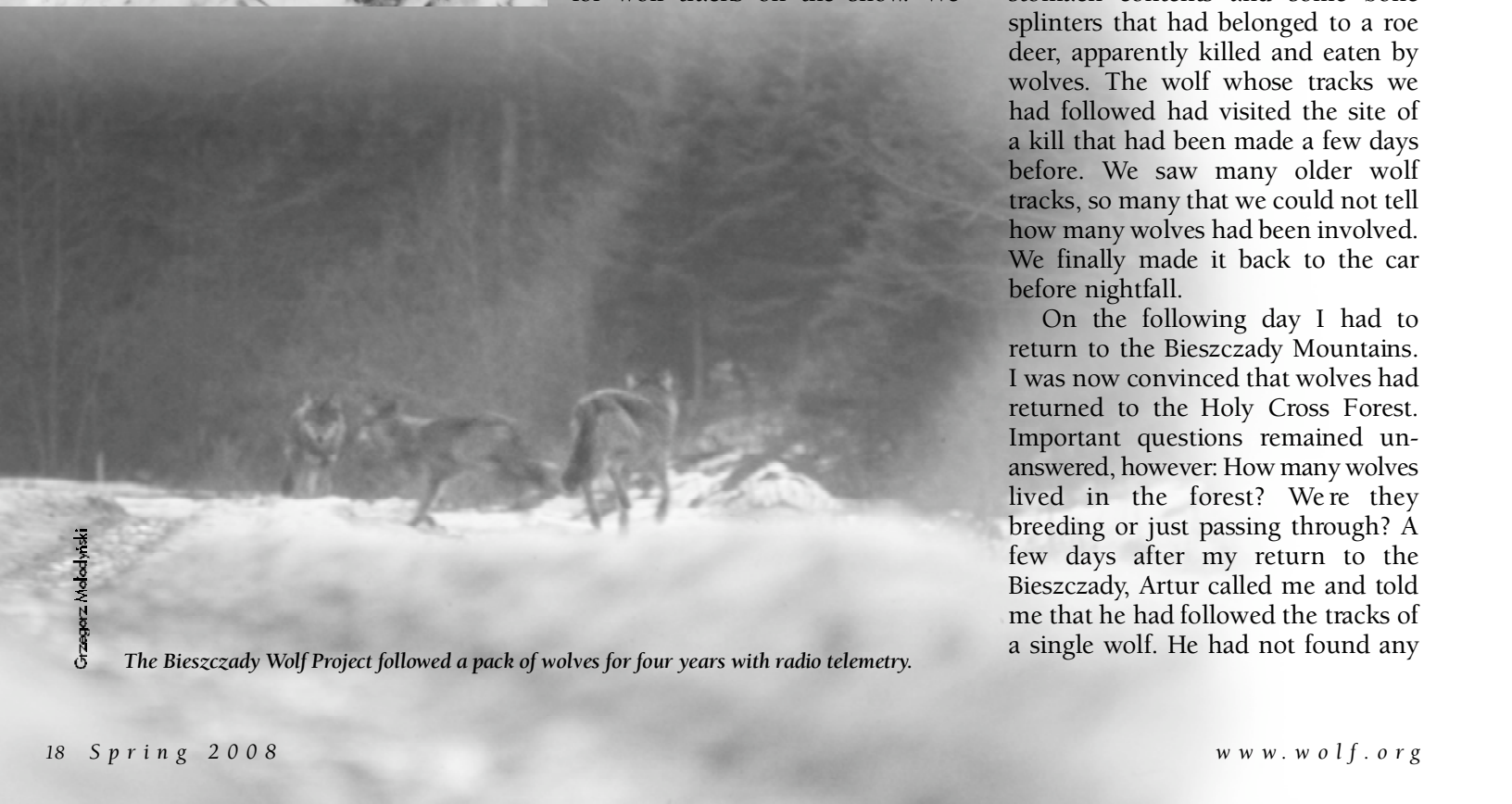
Archives of Bieszczady Wolf Project

that might have belonged to wolves in summer 2005, but he was unsure whether they might simply be dog tracks. Winter 2005-06 was exceptionally harsh in this region; snow appeared in December and lasted until mid-March. So Artur and other forestry people could look for tracks in the snow for three months. Between December and February, Artur regularly came across the tracks of up to three wolves. In January he found a red deer hind that had been killed and partially eaten by wolves. A few days later, two wolves crossed a forest road 15 meters (16 yards) in front of his car. He checked the tracks after the wolves left and saw that there had been three wolves, but one had crossed the road farther from the car, and Artur had missed it. Although Artur's accounts of his sightings and snow tracking sounded reliable, I still wondered about the veracity of his story. I told Artur that I might drop by and spend a couple of days with him so that we might search for tracks together.

A few days later I was driving with Artur and my friend Krzysztof in the Holy Cross Forest, looking for wolf tracks on the snow. We covered a large area in five hours but did not see any tracks. We found some wolf-size dog tracks in the vicinity of one village but no wolves. Both Artur and Krzysztof were ready to go home, but something told me we would find wolves. Direct talks with Artur assured me that all the information he had passed to me was based on his own observations, and I believed him. Thanks to my experience radio-tracking wolves, I knew that these animals are very mobile, and I was convinced that finding tracks was only a matter of how much distance we could cover. However, my companions did not share this optimism, especially as Artur had just heard some gossip about a wolf being poached in the south of the forest a few days before. Knowing the negative view that the local hunters have about wolves, we thought that all three wolves might already be dead.

One hour before sunset we spotted wolf prints on the side of the road. They were just the tracks of a single individual, but I turned on my GPS, and we followed them. After more than two kilometers (1.25 miles), this wolf's trail brought us to a kill site. The snow was stained red with blood and scattered with hair, stomach contents and some bone splinters that had belonged to a roe deer, apparently killed and eaten by wolves. The wolf whose tracks we had followed had visited the site of a kill that had been made a few days before. We saw many older wolf tracks, so many that we could not tell how many wolves had been involved. We finally made it back to the car before nightfall.

On the following day I had to return to the Bieszczady Mountains. I was now convinced that wolves had returned to the Holy Cross Forest. Important questions remained unanswered, however: How many wolves lived in the forest? Were they breeding or just passing through? A few days after my return to the Bieszczady, Artur called me and told me that he had followed the tracks of a single wolf. He had not found any



Grzegorz Mielodyński

The Bieszczady Wolf Project followed a pack of wolves for four years with radio telemetry.

prey, but apparently the wolf had been bleeding. The way he described the scene brought to my mind a female in estrous rather than a wounded wolf. This news was promising, but did she have a partner? I kept on thinking of the rumors about the wolf that had been shot and wondered whether it might have been her partner. Unfortunately, a few days later snow rapidly melted in the Holy Cross Forest. The absence of snow temporarily brought an end to our investigations.

For summer 2006 I planned a four-week survey of the Holy Cross Forest. I thought July would be the best time to try to locate wolves by howling. At this time of year, packs still gravitate around rendezvous sites, where the 8-to-12-week-old pups stay and wait for adults to return from the hunt. The day we chose for our first howling experiment was perfect, as a high pressure had brought a calm evening with a clear sky and chilly night. When Krzysztof and I arrived at Artur's home, he suggested a place in the south of the Holy Cross Forest as a good starting point. He mentioned that a forester had told him he had seen wolf scats on the road near that point. As Artur had just been there and had found two fresh scats, he thought that the wolves might be around in the evening. I was not so positive, but I thought it was a good plan to start in the southern part of the forest and then slowly drive back home, north, calling wolves every 2 to 3 kilometers (1.25 to 1.9 miles) on the way.

We arrived at the spot just as the sun set and parked in a small clearing. We noticed many wolf tracks on the sandy road. I howled for the first time at about 10 p.m., and the wolves immediately answered. We heard the entire pack and estimated that it was about 200 meters (650 feet) from us. We counted at least four adults and several pups. One adult was separated from the others, its voice coming from a different direction. My companions were amazed; Artur had never heard wolves before, and Krzysztof had never heard them so close up. I was also amazed, as I had expected to work for all of July before getting an answer. Nothing had prepared me for a reply on the first night, and even less for one on the first call! We had been very lucky. The pack continued howling spontaneously for about an hour, then they apparently moved north.

Throughout July, the wolves replied to our calls 10 times at that same place. I was fairly sure that it must be a rendezvous site and that the den was located nearby. In August, Artur searched the area carefully. He found many places leveled by wolves, bones of prey and even the lower jaw of a wolf pup that had died of an unknown cause. I visited this place in late August. It was similar to the wolf rendezvous sites I have seen in the Bialowieza Forest and the Bieszczady Mountains. We searched around the rendezvous site, but we did not find the den. In fall, Artur regularly saw wolf tracks in mud and sand, and he also found many scats. About Christmas Krzysztof found a dead horse that had been dumped in the forest. Wolves had apparently found the carcass and had been feeding from it. When I went back to the Holy Cross Forest just before New Year's Eve, I found seven scats and many wolf prints on sandy forest roads in the area surrounding the carcass. In mid-January, shortly after the late arrival of snow, Artur found the pack and did many kilometers of snow-tracking.

Wolves in Poland number from 500 to 700, and their range covers about 25,000 square kilometers (9,750 sq. mi.). Wolves in the south are part of the Carpathian Mountains population, the largest in Europe. Wolf habitat in northeastern Poland is connected with occupied wolf habitat in Belarus, the Baltic States, and Russia.

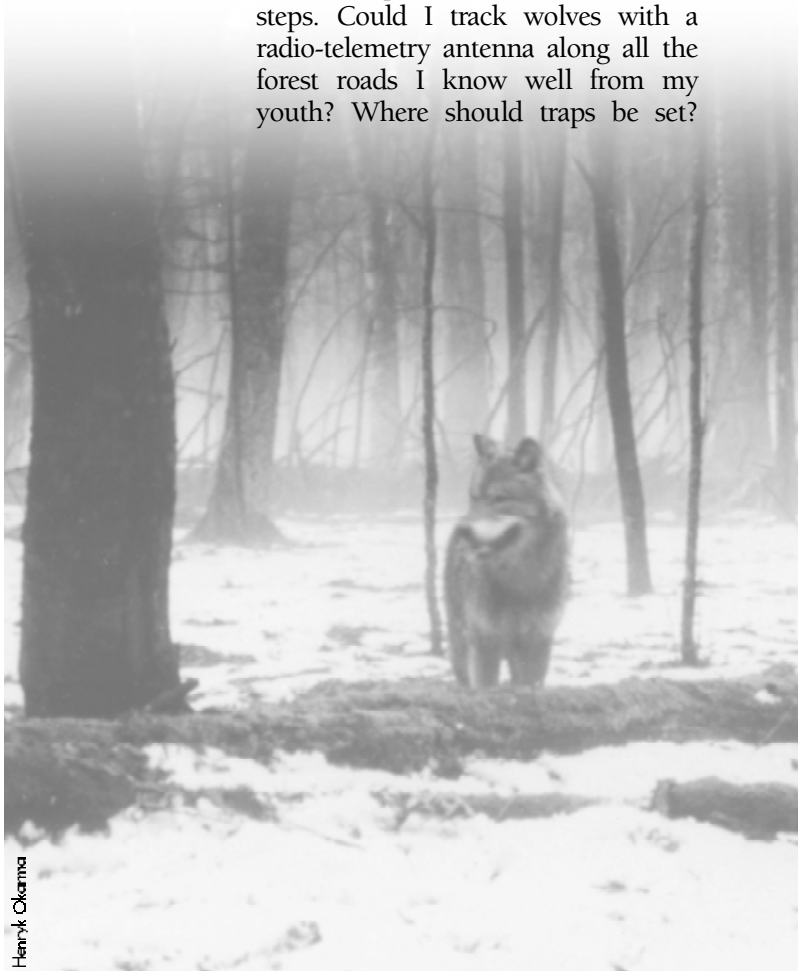
Packs of 2 to 10 individuals (●)occupy territories of 100 to 250 square kilometers (39–98 sq. mi.). Wolves prey on wild ungulates (red deer [Cervus elaphus], *roe deer* [Capreolus capreolus] *and wild boars* [Sus scrofa]).

CORRECTIONS:

"Notes from Home" in the Fall 2007 issue of *Intemational Wolf* contains several errors. The Sigurd Olson (not "Olsen") Environmental Institute of Northland College is in Ashland, Wisconsin, not Michigan. Lynn Lewis was incorrectly named Lynn Davis. In the photo on page 16 Lynn Lewis was mistakenly identified as Pam Troxell. We regret the errors.

In addition, we questioned foresters, hunters and other people about wolves in the region. The presence of wolves had been recorded in a radius of 70 kilometers (43 miles) around the Holy Cross Forest since the mid-1980s but not in the forest itself. The last record of wolves in the Holy Cross Forest was from 1953, when wolves had killed two sheep in a village located near the forest. Wolves had then disappeared, being most likely exterminated during the state-organized killing campaign, as had most wolves in Poland. In the early 1970s probably only about 100 wolves survived in northeast Poland and in the south, in the Carpathians. The persistence of wolves west of the Vistula River was doubtful. In 1975 the status of wolves changed from pest to game species. Since that date, wolves have recovered, and breeding wolves were recorded 40 kilometers (25 miles) southeast of Holy Cross Forest and 30 kilometers (19 miles) northwest in the mid-1980s. One of these packs was entirely poisoned, and the other one disappeared after two years. The other records were single wolves either legally shot until 1995, or poached after 1995, when the status of the wolves was upgraded to a strictly protected species. Apparently the breeding pack we observed is part of general wolf recovery in the region. This process seems to be limited by the poaching of wolves by hunters, rather than by prey numbers or habitat, which I think are sufficient.

Step by step I developed a project on the side of my regular research activities. In cooperation with Artur and with the help of other friends we are now able to monitor wolf presence in the area. We all hope that wolves will be able to survive in the Holy Cross Forest and the region and that our small efforts will contribute to their recovery. But whenever I am there, I cannot help but think about further steps. Could I track wolves with a radio-telemetry antenna along all the forest roads I know well from my youth? Where should traps be set?



Henryk Okarma

Would it be possible to hear the signal of a wolf's radio collar from my mother's house? It is difficult to say if these thoughts will ever become reality, but my mother said, "It seems like wolves will make you a more regular visitor here," and then she smiled. ■

Roman Gula is a research scientist at the Museum and Institute of Zoology, Polish Academy of Sciences. Since 2000 he has lived in Ustrzyki Dolne, a small town in the Bieszczady Mountains, the eastern-most part of the Polish Carpathians, where he is conducting research on the ecology of wolves.

Acknowledgements:

I thank Artur Milanowski and Krzysztof Król for their contributions to the field survey, and Sophie Rouys, David Mech and Mary Keirstead for correction of the text.

Stanisław Strzyżewski

Left: Bartosz Pirga (left) and Roman Gula track wolves using radio telemetry as part of their work for the Bieszczady Wolf Project.

Archives of Bieszczady Wolf Project

Bartosz Pirga (left) and Roman Gula, who work for Bieszczady Wolf Project, handle a female wolf. The wolf's eyes are covered to protect them.

Wolves in Minnesota Have Lost a Good Friend

Karlyn Berg

Jean Braveheart fought for the wolf's protection and helped to enlighten people through education.

Jean Braveheart, founder and director of Minnesota Wolf Alliance, died from a long battle with cancer July 20, 2007. The wolf defined Jean. She believed that its fate was intertwined with Native people and their culture. "What happens to the wolf happens to the earth," Jean would always say. Jean saw great value in this animal both spiritually and ecologically.

Through Minnesota Wolf Alliance, Jean sponsored many events. In winter 1998 she held a rally at the state capitol. In fall 1998 Minnesota Wolf Alliance held its first "Spirit of the Wolf Walk" in Duluth. The following year the second "Spirit of the Wolf Walk" was held in Minneapolis. Many people turned out for these events. As an advisor, Jean represented Minnesota Wolf Alliance to the Minnesota Wolf Roundtable meetings during 1998. All through her battle with cancer, Jean continued to fight for the wolf's protection and helped to enlighten people through education.

Linda Hatfield

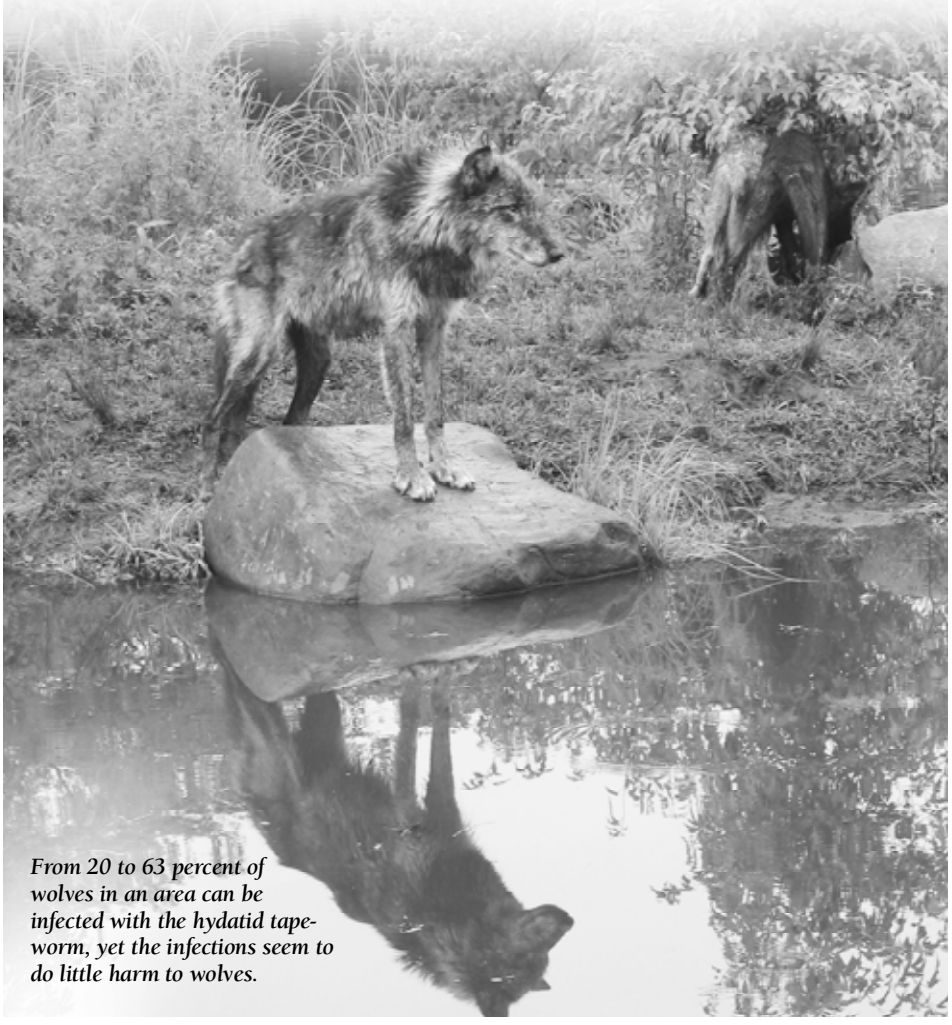
The Hydatid Tapeworm: A Curious Parasite That Has No Fear of the Big, Bad Wolf

by Jay Hutchinson

As many as 25 different kinds of parasitic tapeworms have been recorded from the innards of wolves around the world. One of these, the hydatid tapeworm, is being publicized by some anti-wolf people as a threat to livestock and humans in North America just as wolves are expanding their range into areas where they were once common.

Like many parasites, the hydatid tapeworm follows a bizarre life cycle: it lives within a carnivore, like the wolf, yet needs to spend part of its life inside an herbivore, such as a moose, deer, elk or caribou.

The adults of this tiny tapeworm, which are only as long as a ladybug—about a quarter inch—have a head that attaches to the intestinal wall of a wolf with either suckers or hooks, and a body composed of several segments. Each segment has both male and female sex organs, which produce either self-fertilized or cross-fertilized eggs. The egg-containing segments break off and pass out in the wolf's feces, sometimes contaminating vegetation that a moose or other hoofed host eats, or water that it drinks.



From 20 to 63 percent of wolves in an area can be infected with the hydatid tapeworm, yet the infections seem to do little harm to wolves.

Eileen Jurkovich

Once eaten by a hoofed animal, the eggs hatch into larvae, which bore through the intestinal wall to enter the bloodstream and are circulated around the animal and find a suitable place for further development, usually the lungs or sometimes the liver. There the larvae form cysts, which after about five months reach a centimeter in diameter. The cavities of the cysts are filled with fluid, and the larvae reproduce asexually in them.

The number of cysts found in a host's lungs varies widely. One study found an average of nearly 8 cysts in 23 moose examined. Other studies since the 1930s have found numbers of cysts in moose lungs ranging from 30 to 57, and in one case 250. Some cysts grow as large as ping-pong balls, and one researcher reported finding 10 quarts of fluid in a cyst (size not given).

A considerable portion of a host population may be infected. In studies of moose from Minnesota, Ontario, Saskatchewan, British Columbia and Alaska the percentage infected ranged from 31 to 68 percent. Researchers on Isle Royale, Michigan, believe that the hydatid tapeworm infects a majority of the population. Moose and other herbivores that are heavily infected weaken and probably fall prey to wolves much more easily.

When a wolf eats a hoofed animal with lung cysts, the larval tapeworms attach to the intestinal wall of the wolf and develop into adult tape-

worms, thus completing their life cycle. From 20 to 63 percent of wolves in an area can be infected, yet the infections seem to do little harm to wolves.

Other canids, like coyotes and foxes, can also be the primary host of the hydatid tapeworms because they are likely to feed on wolf-killed carcasses. Infection rates in coyotes can range from 8 to 25 percent of the population. Dogs can be the primary host if they are fed moose remains that are infected with larvae.

A few isolated cases of the secondary larval cyst stage, which usually occurs in hoofed animals, have been found in humans, particularly Native Americans in Alaska. The infections in humans appear to be accidental, requiring the person to have swallowed or breathed great loads of eggs. This seems to have happened when people have fed cyst-filled caribou or moose lungs to their dogs and then drunk water nearby that had become contaminated by the dog feces.

Should we be concerned that the hydatid tapeworm will be spread widely to livestock and even humans as the wolf population increases? After all, populations of this once almost universally despised predator in the western United States have grown to over 1,500 in the past decade or so. And in the Midwest wolf numbers have grown to about 4,000, of which about 3,000 are in Minnesota, where the population merges with Canadian wolves.

The answer is probably not. The fox and coyote populations are already carriers of the hydatid tapeworm and present no apparent problems to humans, even though they live and interact much more closely with humans and their livestock than wolves. And unless people are grossly negligent about sanitation, they rarely become infected with this parasite. ■

Jay Hutchinson is a writer and editor, retired from the U.S. Forest Service's North Central Research Station, in St. Paul, Minnesota. Between travels, he enjoys writing about various natural history subjects, including wolves.

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What Does "Recovery" Mean for Red Wolves?

by Bud Fazio

As shown in the Winter 2007 issue of *International Wolf*, the Red Wolf Recovery Program and its partners and supporters celebrate many restoration and management successes over the past 40 years. Surrounding these successes is the question of what constitutes "recovery" of red wolves, a topic pertinent to many other federally threatened or endangered species listed in the United States. Because historic occurrence and modern recovery criteria differ for each listed species, there is no single definition of "recovery."

Early thinking under the U.S. Endangered Species Act (ESA) recognized a dichotomous threshold of whether a species is "recovered" or "not recovered." However, most professionals in species conservation today realize recovery is a continuum often requiring long-term management. Even after a species is "recovered" and delisted, the species may remain "conservation-reliant" in the face of mounting pressures from growing human populations. Scott and colleagues (2005) described species conservation reliance as requiring continuous management intervention against persistent threats to prevent a future need to relist a species under the ESA.

This brings us to a fundamental question: What constitutes red wolf recovery? One possible scenario is achievement of recovery objectives that include three viable red wolf populations within the species' historic range, where each population is maintained via long-term management agreements. Another possibility is long-term management while retaining listed status, with red wolves maintained by a level of effort similar to that required to manage and monitor delisted gray wolves. A third possible scenario is that human-caused mortality factors become so unmanageable that red wolf recovery becomes limited or declines.

No matter what occurs, one thing is clear: Future success in red wolf recovery will depend largely upon solutions practiced by people. Solutions will come while working with partners in science (e.g., Recovery Implementation Team), propagation (e.g., captive rearing, island propagation programs), and education (e.g., advocates, public outreach).

Will red wolves become fully recovered across all of their former historic range? This is not likely due to widespread human influence. Can we achieve significant new levels of red wolf recovery to the point of delisting the red wolf? Yes, if habitat, invasive species, and human-caused mortality factors are effectively managed or reduced through long-term agreements. If future factors preclude delisting the red wolf, is red wolf restoration a worthy effort? Yes, most definitely, because we fulfill our legal and ethical obligations to restore the red wolf, thus giving it a fighting chance to survive while moving away from human-caused extinction. ■

Bud Fazio, a wildlife biologist, has served as Team Leader of the Red Wolf Recovery Program since 2001 for the U.S. Fish and Wildlife Service in North Carolina.

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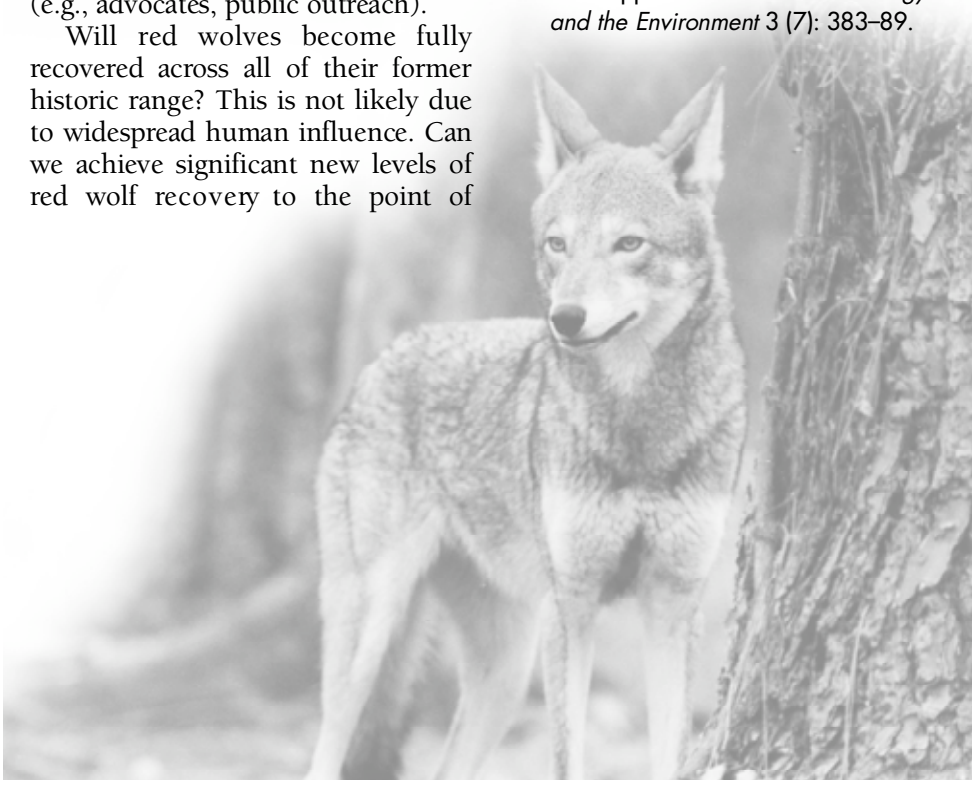

Evelyn L. Mercer