INTERNATIONAL

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> A PUBLICATION OF THE INTERNATIONAL WOLF CENTER WINTER 2006

WOLVES OF THE HIGH ARCTIC, page 4 EDUCATION THROUGH A WOLF HELPLINE, page 8 INTERNATIONAL

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER VOLUME 16, NO. 4 WINTER 2006

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In summer 2006, L. David Mech and three associates from the International Wolf Center traveled to Ellesmere Island, where Mech has been studying wolves for 20 summers. The traditional den site was once again occupied, and the visitors were able to observe seven adult wolves and five pups in their High Arctic home.

Cornelia Hutt

The second secon

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In summer 2006 the International Wolf Center launched the latest in its services to meet its mission of teaching the world about wolves. The Wolf Helpline, geared to families and businesses around the Center's headquarters in Ely, Minnesota, offers the type of information needed wherever people seek to coexist successfully with their wild canine neighbors.

Tracy O'Connell

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On The Cover

An arctic wolf on Ellesmere Island, summer 2006. Photo by Nancy Gibson. Read about the wolves of Ellesmere Island on page 4.



International Wolf Center



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International Wolf is a forum for airing facts, ideas and attitudes about wolf-related issues. Articles and materials printed in *International Wolf* do not necessarily reflect the viewpoint of the International Wolf Center or its board of directors.

International 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.

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

As A Matter Of Fact

Question: What is the intermediate host of the wolf tapeworm *Echinococcus granulosus*?

Answer: The wolf is the "definitive" host of this tapeworm, meaning that the wolf harbors the adults. The intermediate hosts of *Echinococcus granulosus* are most often hooved animals, or ungulates. When an infected ungulate is consumed by a wolf, the ingested

tapeworm larvae

emerge from their

cysts in the lungs of



prey, mature, and live in the canine's small intestine. Be aware that very rarely humans can also be an intermediate host, and remember to wash your hands!

New Question

What is the prey of wolves in Riding Mountain National Park in Canada?

West Gate

From the Executive Director

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On Lucas

y first introduction to the International Wolf Center's four ambassador wolves didn't go particularly well. They were 4 months old. It was August and hot. Shorts, t-shirt and Velcro-fastened sandals were the dress for the day. Into the wolf enclosure I went to make their introduction.

Initially all went well, with exuberant greetings exchanged, until those sandals got in the way. They affected the pups like catnip affects cats. The pups' sharp claws worked on the straps of the sandals, but mostly the claws worked on the top of my bare feet. The pups were having one heck of a rousing time but not so my feet. I had no choice but to remove the sandals and toss them over the fence. Fortunately, when



the stimulant was removed from the situation, we all got along famously. I was also relieved to learn that it was indeed the sandals, and not a peculiar characteristic of my feet, that got the wolves so excited.

Thus began my association with the Center's ambassador wolf pups in 1993, the summer our new education facility in Ely, Minnesota, opened to the world.

These wolves have stood as proxies for their wild brethren and given

us an opportunity to teach literally hundreds of thousands of people about what it means to be a wolf without the layers of misinformation

Walter Medwid

that tend to inundate any coverage of the subject. Since those early days, many more thousands of people have come to know our ambassador wolves via the Internet and our three Web cameras.

One of the pups that worked over my sandals in 1993 was Lucas. In his maturity he seemed to have an aloofness about him, perhaps developed out of his stature as the lone male of the pack-he didn't have much to prove to the others. Also distinctive was his unique way of asking for a good scratch. While the other wolves would make their needs known head-on, Lucas had a different approach. His "scratch ask" was subtle in that no scratch would be allowed if you approached him. He had to approach you, but that always resulted in his going just beyond your reach. If you stayed quiet, he would perform a stiff adjustment with his back legs, causing his southern half to move a few inches closer to you as if to get within his critical scratching zone. With that move he seemed to suggest two things: yes, it would be permissible to give him a scratch in the sweet spot located on his back and in the middle of his rear legs, but unlike the other wolves, he wasn't going to get too excited over it (which was true). After the requisite time, he would amble off with his scratch quota met.

Lucas was euthanized in July following debilitating medical conditions. His good work was done.

Dalter U. Ufeder

International Wolf

The Wolves of the High Arctic:

SUMMER 2006

by CORNELIA HUTT photos by Nancy Gibson t was the highlight of my life. Hundreds of miles north of Hudson Bay, a thousand or more from the nearest city, I stood alone in the High Arctic—surrounded by wolves." Thus, in his book *The Arctic Wolf: Living with the Pack*, Dave Mech begins his account of what he called his lifetime dream: to travel to this remote and almost inaccessible region to study the white wolves.

The arctic wolf lives along the northern and eastern shores of Greenland and also in some regions of the several huge islands between the North Pole and the edge of the North American continent. In these regions, sometimes called thermal oases, the snow melts for a brief period each summer, and a variety of shallow-rooted plants feeds musk oxen, arctic hares and Peary caribou. Conditions are harsh, and food is often scarce, so wolf pack territories cover enormous areas—more than 1,000 square miles.

Because the wolves of the High Arctic have never been harassed or persecuted by humans, they are not secretive or afraid of people the way wolves are in the southern latitudes. Thus, for 20 summers, Dave Mech has been granted a research permit from the territorial government in Canada and has been able to observe the wolves for weeks at a time each year, traveling with them, watching

It is life at the edge, so hardy and diverse, yet so vulnerable to the extreme conditions. -Walter Medwid, Executive Director, International Wolf Center them hunt their natural prey and recording their behavior as they rear their pups and interact with one another as a family unit. Over the course of 20 years in his research area on Ellesmere Island, he has seen the prey populations flourish and wane and bound back again. Wolf numbers fluctuate, too, and are related to the availability of prey. Some years the wolf pack is composed of several adults and numerous offspring. Other years, a mated pair may produce only one pup-or none. And sometimes there are no wolves at all to be found. For example, in the midsummers of 1997 and 2000, accumulating snow in Mech's research area caused a heavy reduction in musk oxen and arctic hares the next year. The wolf numbers reflected the scarcity of prey, and from 1998 through 2003, Mech found no wolves denning in the area.

However, improved weather conditions since 2001 have allowed prey to increase slowly, and in 2003, wolves returned to the area. Then in 2004 a wolf pair produced four pups, and in 2005, three pups. Thus, hopes were high for summer 2006 when Mech, accompanied by three associates from the International Wolf Center, arrived

in the High Arctic. The group's first visit to a traditional den site revealed that it was once again occupied. This beautiful rock outcropping with a panoramic view of a

The group's first visit to a traditional den site revealed that it was once again occupied and was home to seven adult wolves and five pups. broad valley surrounded by rolling hills was home to seven adult wolves and five pups! The wolves welcomed Mech and his companions with cautious tolerance, and the team settled together at a respectful distance from the den to observe the pack without causing them stress or anxiety.

Mech estimated the energetic pups to be about 5 weeks old. They had lost their newborn "kitten" look, and although their noses were elongating, their sturdy legs were short, and their gait clumsy. They were still young enough to pester their mother for bouts of nursing whenever she would permit it, and their round bellies and high spirits showed them to be healthy and well-nourished. With the introduction of regurgitated meat to appease their voracious appetites, "Mom" was slowly weaning the



fast-growing youngsters. A dutiful mother, she nevertheless willingly turned over the job of keeping the pups amused to the young adults in the family. After a nursing bout, she often ambled down the hill to a sunny spot in a meadow filled with arctic poppies and waving cotton grass and flopped down to doze undisturbed by her exuberant offspring.

By discovering identifying characteristics (method of urination, a scar, a limp, a whorl of hair, a distinctive shedding pattern), Mech and the others sorted out who was male and who was female and who was who. Mom was pure white, her winter coat still long and luxuriant. Redneck's collar of dried blood was doubtless a stain from a musk ox kill, and Dirt



Ball was unabashedly disheveled and encrusted with mud. Gimpy had a hitch in its get-along, Grayback wore a silver gray shawl around muscular shoulders, and the shape of Bottlebrush's tail made naming this wolf easy! The breeding male, a wolf the team called Brutus, was distinctive mostly because of his size and his demeanor. Brutus had "Attitude." He was a regal Mr. Cool, aloof and imperious. His job was to hunt, bring food back to Mom and the pups and then to sleep, undisturbed by his rambunctious progeny. Occasionally he would rouse himself from a nap, stroll over to the small group of human visitors and give them a nononsense appraisal. Satisfied, he would saunter back to his resting spot against the rocks to resume his nap with no more regard for the human guests than he had for the mosquitoes that buzzed around his ears.

As yearlings, the young adult wolves had lost most of the traces of adolescence save for the wispy strands of hair on their shoulders and necks, a trademark of youth sometimes referred to as a "bad hair day." These exuberant young wolves took turns babysitting when the parents

and the rest of the pack left the den to bring in food from a recent kill or to search for another musk ox calf they could catch-not an easy task, even for an efficient predator like a wolf. Huge and lumbering as the musk oxen are, they are quick to form an impenetrable defensive circle around the calves. The wolves seemed to know when the jig was up, and they would head off to find another, perhaps less wary herd, covering the huge distances at a groundeating trot. They could be miles away, yet still be visible without the aid of binoculars. Like luminous moving dots on the vast landscape, they would trot tirelessly over the

rough terrain, disappearing into gullies and popping up again as they traversed the higher ground.

Whether alone with the pups as "nanny" for the day or together when the entire pack was at the den, the young adults seemed to relish playing with the pups. Brimming with energy, the youngsters tumbled and roughhoused with their older siblings. A piece of musk ox hide served as a hotly contested prize in a fierce game of tug of war. The pups would capture the prize, snarling and mauling the spoils of their victory. Sometimes the adult wolf's tail became the object of their attention. Tugging fiercely, they would attempt to detach the tail from its indulgent owner, and then giving that up as a lost cause, they would climb on the big wolf's belly, growling ferociously and inviting another game.

As if the wolf family's daily routines weren't enough reward for the hours of patient observation, another drama unfolded with the arrival of Edgar. Ravens are fairly rare in these high latitudes, so when the big glossy bird swooped in and landed on the rocks behind the wolf den, it caught the team's attention. After regarding the humans with bright-eyed interest, the raven gave a hop, flapped its wings and landed right beside the astounded group. Strutting around like a barnyard chicken, it looked at each person quizzically as if to say, "So! Where's lunch?"

Throughout the days, Edgar became the loyal mascot of the team. He was a young bird, and someone, somewhere had certainly hand-raised him—perhaps another research team. In any case, when Mech and his three companions left Ellesmere, Edgar had made permanent friends with the personnel of a small, remote weather station in the area.

Whether or not one believes in harbingers of good or ill, Edgar seemed to symbolize the unqualified success of the summer's observations and data collection. Perhaps he will be there when Mech returns in summer 2007 to continue his study of the wolves of the High Arctic and to share his discoveries with the scientific community and the general public as well. It was hard for the team members to leave but good to know the wolf family is healthy and thriving. Perhaps, along with Edgar, they will be there next summer, too.

(Board members Nancy Gibson, Cornelia Hutt and Ted Spaulding traveled with Dave Mech to the High Arctic in July 2006. They sponsored themselves for the trip.) ■

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

Because the wolves of the High Arctic have never been harassed or persecuted by humans, they are not secretive or afraid of people the way wolves are in the southern latitudes.

Read Neil Hutt's journal of her trip to research wolves on Ellsmere Island with Dave Mech, Nancy Gibson and Ted Spaulding. Through unique and exciting day-by-day descriptions, you can learn about Mom, Brutus, Grayback, Edgar and, of course, the puppies. Visit www.wolf.org's home page to start your experience of wolves in the High Arctic.



Expanding Education Through a Wolf Helpline

by TRACY O'CONNELL

here's a wolf outside. It's been coming into the yard the past several nights. It stands by my children's swing set and doesn't seem to be afraid of me. I'm worried about letting the children play outside, or letting the dog out. What should I do?"

664

Calls of this type became common last summer as the International Wolf Center launched the latest in its suite of services to meet its mission of teaching the world about wolves.

The Wolf Helpline, geared to families and businesses around the Center's headquarters in Ely, Minnesota, offers the type of information needed wherever people seek to coexist successfully with their wild canine neighbors.

"We got about 15 to 25 calls a week right off," said Steve Chihak, the summer intern who initially staffed the helpline, about the brisk business he encountered when the service launched in mid-May. An example of the calls he received was one from within three blocks of Ely High School, where a cat had been killed and a dog chased by a wolf in two separate incidents in June. On June 29, six wolf pups were seen on a golf course near Lutsen, Minnesota; the pups were reported mangy and malnourished, with no adult wolves present.

The helpline (800 ELY WOLF, ext. 34) was augmented by an outreach effort that Chihak also carried out: bringing the Center's "Living with Wolves" flyer to area businesses, publicizing the helpline around the community, and speaking to groups. In one speaking engagement, Chihak fielded about 50 questions from a home-owners group concerned about what they called a "dramatic increase" in wolf sightings.

In his visits to area resorts, Chihak helped owners communicate to their

guests that luring wildlife for up-close viewing creates a problem for the animals, which become habituated, or accustomed to being around people. Some resort guests acknowledged discarding meat scraps and grease in open pits outside their cabins, unaware those actions can cause wolf behavior problematic for the wolves and the area's other residents.

Chihak underwent more than 20 hours of training at the Grand Rapids, Minnesota, office of the U.S. Department of Agriculture (USDA) Wildlife Services before he took to the phones and the field at the Center. Included were instruction in investigative procedures and conflict management, identification of wolf depredation compared to wolf scavenging, and recognition of wolf tracks from those of coyotes and dogs. Chihak also learned use of aversive conditioning equipment, such as the firing of 15mm

The Wolf Helpline, geared to families and businesses around the Center's headquarters of information needed wherever people seek to coexist successfully with their



Left: Steve Chihak, the Wolf Helpline summer intern, set up a wildlife camera to record wolf behavior.

> Below: This wolf, suffering from mange, was photographed by a wildlife camera near the Ely, Minnesota, cemetery.

"whistlers," to scare wolves away. Training in such equipment is required prior to its use to ensure safety and the humane treatment of animals, notes Wolf Curator Lori Schmidt, who supervised Chihak during his internship.

Depending on the situation Chihak encounters, he responds to helpline calls with an initial phone consultation and additional followup calls and one or more visits to the site, during which he may present

in Ely, Minnesota, offers the type wild canine neighbors.



"With more wolves in our area—the numbers are up from 2,400 to 3,000 in the state during the past decade—and more people moving into our region, the need for this service will continue to grow."

the "Living with Wolves" flyer and suggest ways the home owner can dissuade further wolf visits by tactics such as more tightly covering garbage cans and not leaving pet food out. In some instances the attractor may be something in the area, such as wildlife in neighboring woods or chickens in a neighbor's coop.

At times Chihak mounted a wildlife camera at a location where there had been concern about wolves in an attempt to record the wolf behavior.

> The Wolf Helpline was a collaboration of the USDA-Wildlife Services and the International Wolf Center with cooperation from the law enforcement divisions of the Minnesota Department of Natural Resources and the U.S. Forest Service. The venture was financially supported in part by these Ely businesses: Grand Ely Lodge, Piragis Northwoods Company and WELY End of the Road Radio.

In one case it was discovered that the same wolf was causing home owners' apprehension at two different sites, having moved to one site after aversive conditioning was begun at the other. The aversive conditioning was then carried out at the second site. Other Center staff helped Chihak field calls, and Information and Program Specialist Jess Edberg along with Wolf Curator Schmidt assisted in some of the site visits.

Calls dropped off in the middle of summer, and both Edberg and Schmidt attribute this to the success of early efforts to assist those area residents who were asking for help. "People we talked to were telling their neighbors the information they received from us, and that helped spread the word, so people were helping each other become 'wolf smart," Edberg says. There is some seasonality to calls, Edberg adds, noting that as pups get old enough to leave the den in summer, there are typically increased sightings. This year, however, there was not an increase in call volume at that time. Fall typically also sees a rise in wolf activity, and therefore calls, as young wolves disperse in search of mates and unclaimed territory.

Schmidt was instrumental in conceptualizing the helpline, having long seen a need for the type of information it offers. "I'd be in town shopping, and someone would ask me about wolves," she says. In con-sultation with others, the idea took shape.

Wolf populations are increasing in the region, says Schmidt, speaking of the need for the helpline. "With more wolves in our area—the numbers are up from 2,400 to 3,000 in the state during the past decade and more people moving into our region, the need for this service will continue to grow."

The helpline continues, although Chihak's return to classes at the end of August meant a slower response time to calls; the message machine promises a response within 48 hours. "Lori and I are continuing to take the calls, and Steve will volunteer his time

as he's able, with school," Edberg says. Vermilion Community College has promised another intern for summer 2007, so the helpline will be back in full force at that time. ■

> Tracy O'Connell is assistant professor at the University of Wisconsin-River Falls and formerly worked in marketing communications for corporate and not-forprofit organizations. She serves on the communications committee of the International Wolf Center and lives in rural western Wisconsin.



In late June six wolf pups were seen on a golf course near Lutsen, Minnesota. The pups were mangy, a condition that comes and goes in wolf populations.

Gary Meinz



INTERNATIONAL WOLF CENTER Notes From Home

Man with Visual Impairment Visits the International Wolf Center Hands-On

 \mathbf{F}_{63rd}^{or} Mark Balkowitsch's 63rd birthday, his partner, Stephanie Grady, wanted to take him to a place where he could get a "sense" of his favorite animal, the wolf. Being visually impaired, Mark would have the opportunity to benefit from a special program that would allow him to use his other senses to get to know the wild canine. So, Stephanie contacted the education team at the International Wolf Center, who, in turn, worked with special education teacher Donna Prichard to customize an educational program not based on vision.

Mark and Stephanie spent two days participating in regular programs at the Center as well as those Donna specifically created for them. "I made some modifications/adaptations so Mark could fully participate," said Donna. For instance, while discussing animal tracks, Mark learned how to construct wildlife track pads in the surrounding forest rather than visually searching for tracks. By touching the pads he was able to discover the big difference in paw size between a wolf and a coyote.

Radio telemetry allowed for a wolf search using his auditory senses. Telemetry equipment creates a beeping noise that increases in volume as it gets closer to the collar it is set up to find. "We went out and . . . Mark was able to use his keen auditory senses to locate the collar that I had hidden," explained Donna. Afterward he tried to locate some collared wild wolves in the Ely area. Although he was unsuccessful in locating one, Mark had the full experience of how it is done by wolf experts.

Mark got a better "feel" for wolves by petting wolf pelts and handling bones from their prey, such as a moose femur and a deer leg. Later, walking around the Center's wolf enclosure, he was able to discover the size of the Exhibit Pack's living area. As dusk approached on a Wolf Communication field trip, Mark howled in hope of a return howl from a wild wolf pack. Stephanie emphasized that Mark doesn't let his blindness keep him from learning or "seeing" what life offers. She explained that he is a successful businessman who gives his full effort to any challenge or task. He owns a high-end audio business, is computer savvy and loves to cook. He even rebuilds and restores vintage "hot rods."

Stephanie and Mark were very happy with their specialized experience in Ely, Minnesota. Stephanie said it was more than she expected, "I am truly indebted to the International Wolf Center."

If you would like to have your own customized program at the International Wolf Center, contact Program Director Jen Westlund at progspec@wolf.org or 218-365-HOWL (4695).

Mark Balkowitsch, who is visually impaired, participated in a customized program at the International Wolf Center with his partner, Stephanie Grady.

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Rolf Peterson Brings Riches to the Board

7hen two bull moose with antlers died from exhaustion in rut on Isle Royale in the early 1990s, Earthwatch volunteers collected some of their bones on a hypothermia-inducing May day. Dr. Rolf Peterson, leader of the Isle Royale wolf study, hoped to reassemble the moose, and over the years he looked for and collected missing bones. The result: a bull moose skeleton, which has become one of the International Wolf Center's most popular exhibits. And Peterson became an integral member of the Center's board of directors.

Peterson ended his tenure as professor at Michigan Technological University in May of this year. But he doesn't plan to slow down. He will continue to research wolves on Isle Royale as well as carry on his valued service with the International Wolf Center.

Peterson joined the board in 1994 and has served as

secretary since 1997. He says he finds that the "fantastic and committed bunch of folks that also serve on the board are always interesting and energizing."

Peterson's generosity to the Center and its projects often takes unique turns. He once entertained Alpha members with a fascinating slide show and a tape of yowls of snarly foxes he had encountered on Isle Royale. The photos illustrated the difference between the behavior of wolves and foxes, which are largely solitary, with none of the submissive or friendly postures that wolves exhibit.

While the Center often benefits from Peterson's wolf and moose expertise, in 2007 his contributions took an artistic turn when he donated printed cards of one of his wolf paintings.

"The board can always count on Rolf for clear thinking, a fresh perspective and an abiding good humor in its deliberations," said board chair Nancy jo Tubbs. "It's an honor and a pleasure to work alongside him."



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Tracking the Pack

Tracking the Pack

Captive versus Wild: The Nature versus Nurture Discussion, Part II

by Lori Schmidt, Wolf Curator, International Wolf Center

n the last issue of *International Wolf*, I discussed the similarities of captive versus wild wolves. This article focuses on the two most significant differences between the ambassador wolves and their wild counterparts.

Social Pack Structure. One of the main differences relates to the composition of packs. A typical pack in the wild consists of parents, offspring from one or two years and pups of the year, depending on the number of years since pack establishment. At the Center, there is no breeding, so pups are acquired from another facility and socialized to live with the existing adult wolves. While the wolves develop strong social bonds with the new pups in captivity, they are likely not as intense as the bond between parents and their offspring.

Dominance behavior between wolves is common, but it is important for managers to discern normal dominance behavior from intense aggression heightened in a captive environment.

Wild offspring will follow the lead of their dominant parents due to their strong bond with them. In captivity, especially at those facilities that alter the breeding within the pack, the leaders of the pack may be more inclined to assert their status through ritualized dominance, often with some intensity. Internal pack strife in captivity is well documented at many facilities and may in fact be more intense than internal pack strife in the wild.

Lack of Dispersal **Option**. Biologists estimate that as many as 40 percent of wolves disperse or leave their natal packs in search of a mate and an opportunity to establish a pack in a new territory. Dispersal may be motivated by restricted food resources, space limitations or even a bold personality trait that motivates a pack member to start to travel. In the wild, the freedom to leave a pack is constant; in captivity, there is no freedom of dispersal. Changes to pack structure are at the discretion of the captive pack's human managers. This lack of the option to disperse may also create a higher level of dominance activities than is inherent in the wild.

Understanding the motivations of wolves in the wild is critical when managing captive wolves. But equally critical is understanding the influences of confinement on captive wolves' behavior so that managers can establish the best practices possible to create a behaviorally dynamic and cohesive social group. The Center's captive wolf management program strives for this goal.



Alpha Legacy Profile

Nurturing young ones is a theme in Cate and Doug Kautz's lives. As parents of 4-year-old Kiera and 2-month-old Darby and of Doug's 12-year-old daughter, Kathleen, they know the drill firsthand.

Nurturing and learning from young ones at the International Wolf Center has also been an integral part of their lives. As Doug explained, "My mom bought me a wolf adoption kit 13 years ago when I lived in Baltimore. The tradition continued when my daughter Kathleen adopted Maya as a pup. Kathleen keeps track of Maya online to this day." When asked why they've included the Center in their estate plans, Cate explained, "I realize that we're young to have all this in place, but as a nurse practitioner, particularly having worked in oncology, I see firsthand that life is short. We wanted to make sure that our wishes were realized."

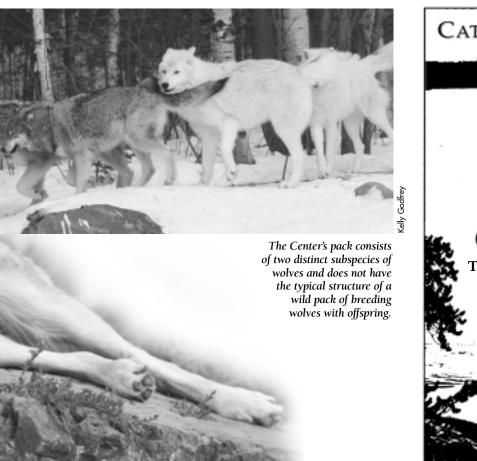
"I talk with patients, some who are staunchly against wolves. I've convinced a few to read *Shadow Mountain* by Renee Askins and know that my conversations and information have truly changed their hearts and

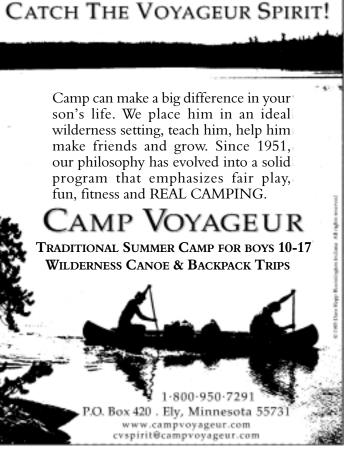


minds. People just need to be educated."

"We believe in the mission of the Center. Education is what the Center does best, and that's where we want our money to go." ■

Cate and Doug Kautz with their children Kiera (right) and Darby







You can display the Wolves and Wild Lands in the 21st Century exhibit at your local museum, community center, town hall or event. Visit www.wolf.org for further information.



Highlights from the International Wolf Center's New Exhibit: Wolves and Wild Lands in the 21st Century

Loss of wild land is the root cause of most problems facing wolves. These issues are depicted in the International Wolf Center's new traveling exhibit Wolves and Wild Lands in the 21st Century, which was featured in the Fall 2006 issue of International Wolf magazine. In this and future issues of this magazine readers will find synopses of the exhibit's interpretive panels, which, in composite, represent the challenges that wolves and people face coexisting in the same places.

"The pending removal of wolves from the endangered species list in the western Great Lakes and Northern Rockies signals the beginning of a new era in wolf conservation," says Andrea Lorek Strauss, National Information and Education Director for the Center and lead designer of the new exhibit. "Wolves and Wild Lands in the 21st Century introduces visitors to issues, including destruction of the wolf's wild land habitat, interbreeding with coyotes, reduction of wolf-human conflicts and questions about hunting of wolves."

The exhibit uses mounted wolf specimens in combination with maps, original drawings, rare images and text to tell these important new stories about wolves. As human populations grow, wild land that supports wolves shrinks to make way for residential and commercial development. When people reduce the amount of land that is developed and natural resources that are consumed, the pressure on wild species and their habitats eases. Preserving wild lands ensures there will be space for wolves and other wildlife populations to function naturally without competing and conflicting with humans.

The exhibit reminds the viewer that humans are ultimately responsible for the long-term survival of wolves. Each person can make a positive difference for wolves and all wildlife by learning more about wolves and wild lands issues, conserving the earth's resources and supporting organizations that promote wild lands preservation.













WOLVES IN THE ROCKY MOUNTAINS Highlights from the exhibit panel

Land development crowds wolves

Explosive residential and industrial development in the Rocky Mountains affects thousands of acres



of wild land each year. Bull-dozing prime habitat drives out elk and other animals that wolves eat. If their prey can't survive, the wolves can't survive.

Housing displaces wildlife

Private ranchland often includes lush valley bottoms that are critical winter habitat for wildlife but are also prime home sites for people. When ranchland becomes valuable real estate, some ranchers are motivated to sell their acreage. Housing developers then subdivide the land into a patchwork of roads, utilities, and houses. Wolves, and the elk they feed upon, are pushed out.



In this situation, keeping ranchers in business can help save animal habitat. The Jackson Hole Land Trust encourages ranchers in the Yellowstone area to restrict future development on their land in exchange for reduced property taxes that make it affordable for them to continue ranching.

Wolves lose to resource mining

Well sites and access roads for oil and natural gas exploration displace the elk, deer, and moose that wolves eat. A coalition of sportsmen and environmentalists is working to prevent exploration that would degrade valuable habitat near Glacier National Park and in Wyoming's Upper Green River Valley.



Rocky Mountain wolf Canis lupus occidentalis

Looks: 85–115 pounds, with a mix of black, white, gray, or tan fur

Eats: Prey includes elk, moose, bison, beaver, caribou, Dall sheep, deer, mountain goat, salmon and snowshoe hare.

Lives: Habitat includes mountains and high plains.

Population: About 1,000 wolves. Status: Endangered.



Historic range of the gray wolf

Current range of the gray wolf

Area related to this panel's stories Note: The Rocky Mountain wolf is one type, or subspecies, of gray wolf.

"The bulldozer and not the atomic bomb may turn out to be the most destructive invention of the 20th century."

—Phillip Shabecoff, New York Times Magazine, June 4, 1978





Wild lands transformed Wolves have a secure home in federally protected parks and wilderness areas. Unless we curb rampant development and save room for wolves outside protected public lands, we relegate them to ever-smaller pockets of habitat.

Wolves of the World

WOLVES IN WESTERN EUROPE

Transboundary Monitoring of a Recolonizing Wolf Population in the Western Alps of Italy, France and Switzerland

by Francesca Marucco

Volves were widespread in Italy, France and Switzerland until the early 1900s, when they were gradually extirpated in the Alps region. The last wolves were killed in the southwestern Alps during the 1920s and 1930s, but wolves survived along the Apennines range of central Italy. In the decades that followed, the importance of the wolf as part of a naturally functioning ecosystem came to be recognized. The wolf was legally protected in Italy in 1971, and listed as an endangered and strictly protected species in Europe after the Bern Convention in 1979 and the Habitat Directive in 1992. Today, ecological conditions and conservation efforts in Western Europe are improving, and both wild ungulate and wolf populations are increasing. Wolves began naturally recolonizing the southwestern Alps at the beginning of the 1990s. Genetic analysis conducted on wolf scat and tissue samples collected in the recently recolonized areas in the Alps proved that wolves arrived through dispersal from populations in central Italy.

When these semi-isolated packs appeared progressively farther from source wolf populations, questions arose regarding wolf origin, numbers, distribution and the impact that these wolves could have on the domestic and wild animals in the Alps. Because of these questions, in France the Minister of Environment, the Parc du Mercantour and the ONCFS started a monitoring program in 1992–93, subsequently funded by two Life-Nature projects (1997–99 and 2000–02). At the same time in Italy the Piemonte Region and the European Community funded the

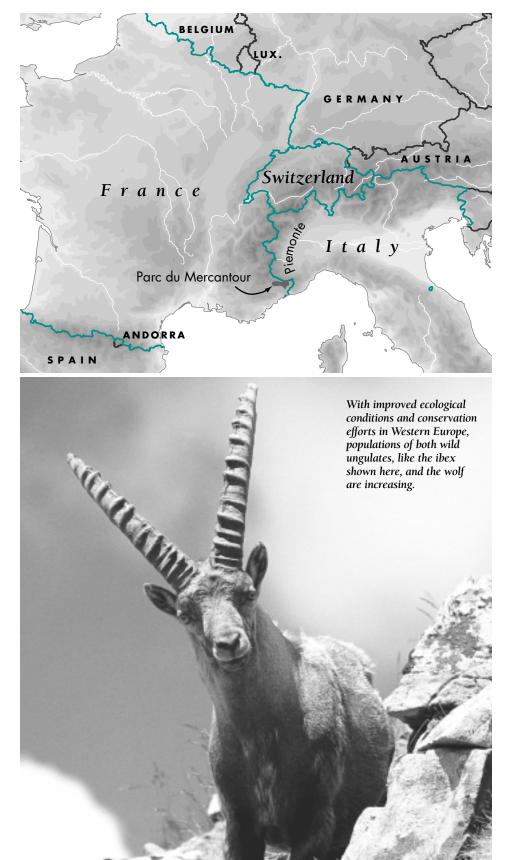
Wolves began naturally recolonizing the southwestern Alps at the beginning of 1990s.

"Progetto Lupo Piemonte" from 1999 to 2001, and from 2002 to 2005 the Progetto Lupo in the Italian Alps was exclusively funded by the Piemonte Region.

This exceptional extended period of funding allowed the study of the wolf recolonization process and the beginning and strengthening of a strict collaboration between the French, Italian and Swiss monitoring groups. The transboundary collaboration grew through the years from a sporadic and formal series of meetings to an actual and practical coordinated program of monitoring and exchange of data. Today this coordinated working group is called the "Wolf Alpine Group."

The large-scale wolf monitoring is based on a combination of noninvasive methods, using both the more conventional techniques such as snowtracking and wolf-howling surveys, and the data from newly emerging DNA-based techniques. This combination of noninvasive techniques provided an optimal tool to monitor wolf pack dynamics and territories over large areas where radio tracking is not feasible or too expensive. A radio-marking program is conducted only on the Italian side of the Alps, at a finer scale, to answer specific questions on predator-prey relationships.

The natural expansion of wolves in the Alps is a great challenge for conservation biologists and wildlife managers of both countries because we try to achieve the goal of having a viable population while minimizing the conflict that the species might generate. Such complex, large management issues require an understanding of the spatial and temporal dynamics of the wolf population, and at the same time a huge effort to solve livestock depredation conflicts through the implementation of prevention





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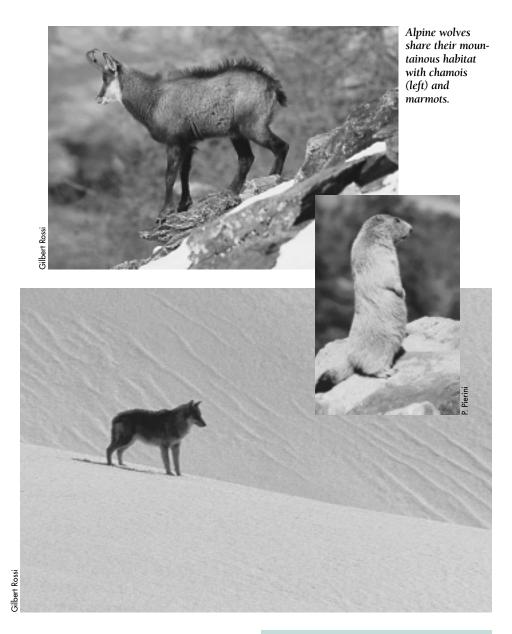
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methods. Therefore, these transboundary research and monitoring programs will provide quantitative understanding of the genetic, demographic and territorial aspects of this Alpine wolf population, and will be fundamental to building an effective management strategy that will consider the Alps wolf population as a unique population.

Francesca Marucco is the coordinator of the Piemonte Wolf Project in the Alps, Italy. She is also a Ph.D. candidate at the University of Montana, Department of Ecosystem and Conservation Sciences. Her dissertation research investigates the effects of habitat loss and fragmentation on the wolf recolonization in the Western Alps. For more information:

- Plan d'action sur le loup 2004–2008 (text in French only) (2004–08 Wolf Management Plan): http://www.loup. ecologie.gouv.fr/virtual/14/documents/ pdf/Plan%20loup%202004-2008.pdf
- Site officiel du loup et des Grands Prédateurs en France (official Web site dedicated to the wolf and other big predators in France): http://www.loup. ecologie.gouv.fr/frontblocksLoup
- Il Lupo nelle Alpi (The Wolf in the Alps) (text in Italian only): http://www.lupo nellialpi.it

nise I realized what l Encounter then, I heard iffled half bark followed by

Thump

the air . None

by Michael S. Smith

smooth, heavy sound re

Fourth night on the trail, 30 minutes before sunset. Alone.

'm dozing in my tent at my campsite in the southwest corner of Lisle Royale, a remote spot on a remote island in Lake Superior, 20 miles from Minnesota and Canada, and 70 from Michigan. It is 40 degrees, threatening to rain, and the 25-mile-per-hour cold north wind makes me wonder if it is really May.

I awaken to a thump, and as I lie quietly on the ground, listening to the wind in the balsams and white spruces near me, I hear it again. The nearest person is at Siskiwit Bay or Windigo, both 10 trail miles away. Nobody has been here in seven months; it is the early season on the Big Lake. I look out the vestibule of the tent and see nothing of note.

The thump is an odd noise, neither the scurry of a mouse nor the patter of a squirrel. One more thump, I tell myself, and I'm going out to take a look. Something is out there. I put on my camp shoes, thinking I know what will happen next.

Thump.

I bolt out of the tent, first seeing nothing but aspen shrubs and tall grasses behind my campsite. I then turn around, facing Feldtmann Lake and the cold wind. There, 12 feet away, separated from me only by air, stands a fully grown timber wolf, Canis lupus himself. Its huge shoulders elevate its front end as if it were standing on a platform. The creature is absolutely magnificent. I've heard that wolves look like dogs. No way. This is pure wolf.

"Oh . . . my . . . God," I say aloud. The wolf and I stare at each other, its dark eyes boring holes in me, its ears erect. It's not going anywhere. Two emotions, thrill and fear, concurrently explode behind my eyes. I've got my wish; indeed, for years, seeing a wolf in the wild has been at the top

of "The List" of things to see or do in my life. But as the wolf stares at me, I am afraid, which I tell myself is ridiculous, given my past reading of David Mech, Rolf Peterson and Barry Lopez. Additionally, I am a longtime member of the International Wolf Center, appropriately having the "Lone Wolf" membership category. I know that barring a possible instance in Saskatchewan last winter, there has rarely been a documented attack by a healthy adult wolf on a healthy adult human in North America.

But that's my intellect speaking. It's quite another matter to be really close to a predator that clearly shows no fear, with no other hominids within 10 miles, knowing I'm not dealing the cards here. Wolves are supposed to be

reclusive; estimates are that 1 in 900 hikers on Isle Royale ever see one, and the sightings are usually measured in seconds or fractional seconds. I've been given one of the greatest gifts of all: the ability to see something I've always wanted to see with total, unambiguous clarity. Nevertheless, the gift comes with some serious strings attached.

The wolf trots down the trail and enters my site, moving into the high grasses behind me. It loops around and again is within a dozen feet. "OK, go on now," I say, with a steady voice, although I certainly don't feel that way. The cover has been removed

continued on page 23



Michael Smith encountered a wolf while on Isle Royale, a gift with some strings attached.

Wild Wids

Gray Wolves That Are Black and Even White ... What's Up with That?

by Steve Lokker

hat would you expect to see when you visit the International Wolf Center? "Wolves," you say. In an attempt to trick you, your brother (or sister) asks, "What kind of wolves?" And because you're smarter than they think, you correctly answer, "Gray wolves."

Then, when you visit the Center you see a white wolf (Shadow or Malik) resting on a big rock, a grizzlecolored wolf (Maya or Grizzer) chasing minnows in the pond, and a nearly black wolf (MacKenzie) on the television screen. "Where are the gray wolves?" you ask. After letting your sibling squirm for a minute, you give the correct answer. "You're looking at them. Despite different colors, all wolves that you see here at the Center are called gray wolves."

Most people think "gray" refers only to a wolf's color. In fact, "gray wolf" is actually the species name of an animal that could appear buff, brown, black, white or gray. There are different species, or types, of wolves just as there are different types of cars (e.g., Ford, Honda, Chevy, Toyota, and others). There are two main wolf species in the world:

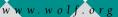
- gray wolf, what biologists call *Canis lupus*
- red wolf, or *Canis rufus*

In addition, some scientists think the Ethiopian wolf (*Canis simensis*) is a true wolf. Others think it is a jackal. Furthermore, scientists are now beginning to believe that the wolf in eastern North America is not the gray wolf but rather an animal they call the Eastern wolf (*Canis lycaon*).

But that doesn't explain why Malik and Shadow are white, while others are black, gray and brown. It's because Malik and Shadow are a subspecies of the gray wolf known as the arctic wolf (*Canis lupus arctos*).

Cars have different models (Ford has the Explorer, Escape and Focus, for example), and each species of wolf

Despite different colors, all wolves at the Center are gray wolves.







ACTIVITY:

You can see the wolves at the International Wolf Center by going to the Center's home page at www.wolf.org and clicking on "Watch live wolves" in the center of the page. Can you spot a white wolf? a gray wolf? a black wolf?

has different models, or subspecies, which are like races of wolves in different areas. Most arctic wolves live north of the Arctic Circle, a barren wilderness covered with snow and ice for most of the year. The unique characteristics of arctic wolves help them survive in one of Earth's most unfriendly environments:

- Being white, like snow and ice, helps arctic wolves blend in with their surroundings when they stalk and hunt their prey.
- They are large because the prey they hunt (caribou and musk ox) are large.
- Rounded ears protect them from the dangers of the bitter cold weather such as frostbite.

Now you know more about wolves. When you have more knowledge than your brother, sister . . . or even your parents, you can help correct some of the wrong impressions that people have of wolves. And people who have correct impressions make informed decisions about how they feel toward wolves.

Steve Lokker is a freelance writer who lives in Madison, Wisconsin. He has been active as a volunteer for the International Wolf Center and the Dane County (WI) Humane Society.

Personal Encounter

continued from page 21

from my pack, but my food, in a plastic bag hanging from a nearby spruce, is untouched.

The wolf drops its head, moving it back and forth, neither a sign of submission nor aggression but probably more curiosity. It is definitely sticking around, and its interest in my gear is most disquieting, as if I needed any more disquiet right before sunset. "Get out," I yell, and the wolf moves back, but only a few feet, arching its tail. I can't believe that I am actually trying to get a wolf to leave my campsite. What's going on here?

For five minutes, the wolf and I watch each other. I don't know what its thoughts are; I keep telling myself it won't attack and that the many moose on the island, including the bull I was near just two hours ago, are far more a threat to me than a

wolf. Emotionally, however, "Peter and the Wolf" from my childhood and past irrelevant encounters with "campsite bears" win the day. I'm out of here as soon as I get packed. I've already covered 10 miles today. I'm going to do another 10 in the dark, batteries permitting. It's worth it. I start collecting my gear.

I look up, and the wolf has vanished, with nary a thump. Maybe it went to check out the moose I saw earlier in the evening. I'm not at all certain whether it will return. No matter. One way or another, I'm not going to be sleeping much tonight. May as well be walking. I'll have a lot to think about on the trail—and for a long, long time to come.

Michael S. Smith lives in Tucson, Arizona. He has canoed in the Boundary Waters Canoe Area Wilderness for 25 years, often hearing but never seeing a wolf. He plans to return to Isle Royale again next spring.



2006 23

Look Beyond

Wolves, Freedom and the Landscape

by David Johns, Kim Vacariu and Margo McKnight

luie was a 5-year-old, gray female wolf researchers first radio-collared in Kananaskas Country, Alberta. For more than two years, they followed Pluie's travel from K country across the Crows Nest Pass into British Columbia, to the Flathead Valley, then to Glacier National Park in Montana, farther south into Montana, across the Idaho panhandle into Washington, and then back to Kananaskas. In some jurisdictions within the 100,000 square kilometers of her range Pluie was legally protected but never entirely safe. In other jurisdictions it was open season, and in British Columbia on December 18, 1995, Pluie, her mate and one pup were legally shot by a hunter.

Pluie's story represents the larger story of wolves and the wilderness needed to sustain them. How will that story unfold? The past could be the future: continued persecution of wolves in the name of protecting livestock for ranchers and ungulates for hunters. Or we could restrict wolves to isolated outdoor zoos in Yellowstone, Banff or Glacier-Waterton.

But another future is possible—a much brighter one for both wolves and people. That story is being written throughout a wildlife corridor that runs from the Sierra Madre Occidental in Sonora, Mexico, north along the Rocky Mountains to the Yellowstone ecosystem and on to the Canadian Yukon. A broad coalition is working to protect and restore the health of the land, water and wolves in this 4,000-mile-long international passage, often referred to as the "Spine of the Continent."

This work rests on a set of values and a scientific understanding of what makes for healthy natural and human communities. The values include respect for all species and the land that supports them, along with the recognition that wolves are important to natural communities in part because they regulate the numbers of many other species and how they interact. Healthy wolf populations depend on two things: good habitat with a diverse prey base, and freedom from human persecution. These two needs are best met by large connected protected areas.

Conservation plans detail the vision for healthy wild lands along the Spine of the Continent. The plans are like the picture on the front of a jigsaw puzzle box-a shared set of goals many groups work toward. From the borderlands of the Sky Islands in southern Arizona to the northern U.S. Rockies, the Wildlands Project and partners are acting to expand protected areas, reconnect landscapes across highways, and recover native species like wolves. The Yellowstone to Yukon Conservation Initiative (Y2Y) has identified similar steps. Y2Y has undertaken or inspired important work such as the TransCanada Highway overpasses, which wolves are using. Throughout the Spine of the Continent. wild areas are being developed, destroying habitat and

threatening the connectivity of the whole system. For this reason, conservation groups, including the Wildlands Project and Y2Y, have joined forces to make maintaining connectivity a top priority.

Such steps are only a beginning. The destruction of several reintroduced packs of Mexican wolves in the Southwest is proof that wolves need much larger wild-land habitats to minimize contact with livestock and humans. Ultimately the survival of wolves will depend on more than recognizing we have no right to destroy other species. It will depend on the deeper understanding that our connection to wolves and wilderness is our connection to what is best in us: our capacity to care for our natural heritage and to embrace freedom for other creatures as well as ourselves.

David Johns was a co-founder (1991) and first president of the Wildlands Project, and a co-founder (1993) of the Yellowstone to Yukon Conservation Initiative. Kim Vacariu is the Southwest Director for the Wildlands Project. Margo McKnight is Executive Director of the Wildlands Project (www.twp.org).