

INTERNATIONAL WOLF

A PUBLICATION OF THE INTERNATIONAL WOLF CENTER
SUMMER 2004

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INTERNATIONAL WOLF

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER
VOLUME 14, NO. 2 SUMMER 2004

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In the heart of the “Great Bear Rainforest,” a nearly pristine, but largely unprotected, temperate rainforest on British Columbia’s mainland coast, biologists are studying the area’s apex carnivore—the gray wolf—with the hope of finding ways to preserve this animal and other coastal life.

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In November 2003, Carter Niemeyer, wolf recovery coordinator for Idaho, visited the central Asian republic of Kyrgyzstan to assess the problem of wolves preying on domestic livestock. He found that Kyrgyzstan’s “wolf problem” is much like wolf problems in the United States.

Carter Niemeyer

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Gray wolf pup howling, Rocky Mountains.
Photo by Daniel J. Cox.

Daniel J. Cox has worked as a professional wildlife photographer for nearly 25 years. His photographs have been published in *National Geographic* magazine and in publications of the National Wildlife Federation, Audubon and Sierra Club, among many others. His work can be viewed at www.naturalexposures.com.

Chris Darimont



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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 (especially black and white). 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.

Letters

Letter to the editor about Mexican wolves overly bleak

I was honored to have my book *The Return of the Mexican Gray Wolf: Back to the Blue* reviewed in your Winter 2003 issue. While the Mexican wolf reintroduction program in the Southwest and the wolf reintroduction program in Yellowstone National Park both faced animosity from opposition, comparison of the two programs ends there. Our southwestern reintroduction into Arizona did not arouse the widespread national interest that the return of wolves to Yellowstone did, but the two projects are not alike. Translocating wild wolves from Canada into northwestern wilderness is much different from attempting to reintroduce captive wolves into their historic habitat.

As David Mech so thoroughly emphasized in the splendid foreword he wrote for my book, the fact that the only Mexican wolves available for reintroduction were captive wolves made the reintroduction much more complicated and difficult than moving wild wolves into a similar surrounding. This in no way lessens the importance of the Yellowstone reintroduction. However, the fact that Mexican wolves were close to extinction with their only hope for survival a return to the wild before they became unfit for wilderness survival makes the current increase in their wild population a victory for this endangered species.

This brings up the extremely bleak outlook expressed by Michael Robinson in his letter in the same issue. Robinson has supported Mexican wolf recovery with genuine dedication for many years, but this negative letter conflicts with the updates I get by phone every few weeks from the energetic project staff in Alpine, Arizona. I do not believe that the U.S. Fish and Wildlife Service fabricates ghost animals to make up for the fact that the population has increased slower than originally anticipated. Monthly status reports on the USFWS Web site (Mexicanwolf.fws.gov) reflect that the year-end population, including pups, is close to 60 Mexican wolves. Considering the past year's rash of illegal killings and accidental killings, this population still exceeds the previous year's ending population by over a dozen animals. Despite the setbacks faced during 2003, the project biologists are upbeat and optimistic about spring pup reproduction in 2004.

No one could predict when the Mexican wolves were reintroduced in 1998 just how many years would be required to fulfill the population of 100 wolves called for in the Environment Impact Statement. Recent improvements in communications among the affected stakeholders, hard-working staff monitoring the daily activities of the wolves, and active surveillance by agency law enforcement officers will work together to achieve successful survival for our Mexican wolves.

Bobbie Holaday
1413 East Dobbins Road
Phoenix, Arizona 85042



From the Executive Director

A Midnight Visitor

One of the great parts of my job is the necessity to work out of our two offices. I spend most of my time in our Twin Cities office, but during the year I make numerous trips to our flagship education facility in northern Minnesota. The trip north to Ely is more than the 250 miles. There is the transition in ecological zones from the broadleaf forest to the mixed forests of the north, where coniferous trees and spruce bogs command a large presence. There is the transition from the largely urban landscapes to a region dominated by the Superior National Forest, including the Boundary Waters Canoe Area Wilderness. As I head north, I leave behind the human population center of Minnesota and the commercial and industrial centers of the state. The more sparsely populated northeastern area of the state supports natural resource-based businesses like farming, forestry and mining.



Walter Medwid

As a birder, my scanning of the terrain close to the Twin Cities focuses on finding red-tailed hawks and sandhill cranes. Farther north, I shift my search to bald eagles, great gray owls and loons. And on the mammal front, the search for moose and bears begins when I reach the north country.

While the rich diversity and distinctive identities of these two regions of the state always make the trips north and south interesting, the element that makes the trip north most distinctive is the transition into wolf range. While the chance of seeing a wolf is unlikely (in my 10 years on the job I have seen wild wolves in Minnesota only a dozen or so times), there is a special feeling that comes with simply crossing into wolf territory.

I was strongly reminded of this on my most recent visit to Ely. While staying overnight in an isolated cabin near the Center, I was startled in the morning by two things. First, the thermometer registered 26 degrees below zero—a temperature rarely experienced in the Twin Cities in recent years. But more engaging than the temperature were the fresh tracks of a wolf that had passed by my cabin during the night. The light snow that had fallen confirmed that the tracks were recently made. Seeing those tracks so close to where I had spent the night added a whole new flavor to the trip and reminded me in a direct way just how much the presence of wolves in the landscape adds to the quality of any outdoor experience. ■

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Rendezvous in a Rainforest

Text and photos by CHRIS DARIMONT

The sun is waning, warming the estuarine grasses and providing the necessary ambience for the meeting. I shatter the silence as I stumble out of my boat, tiptoeing barefoot through the intertidal muck. But it is my smell, not too obscure by human standards, which will expose my clandestine attendance.

I am in the heart of the “Great Bear Rainforest,” a nearly pristine, but largely unprotected, temperate rainforest on British Columbia’s mainland coast. This forest type, rare naturally and from loss at human hands, has more living matter per square meter than tropical rainforests. We refer to this Canadian coast as “the last of the best,” flanked by the tree farms, roads and other human footprints that dominate much of Washington and southeast Alaska. This evening’s meeting is not

with the eponymous creature itself but with one even more elusive, magnificent and emotive—the gray wolf, the area’s apex carnivore.

We still don’t have a pup count for this pack. We know they use this estuary as a meeting area, or rendezvous site, during late summer and early fall. Here, this family of wolves gorges on spawning salmon, often staying for a month or more.

I am part of a team that has embarked on the area’s first study of these animals we so associate with wilderness. But unlike most investigations of this intensively researched beast, our study encompasses an area of true wilderness—tens of thousands of square kilometers almost completely devoid of industrial scars. I roam this landscape with a robust and dedicated team of

colleagues, including Paul Paquet, an intellectual and philosophical mentor to many an aspiring conservation biologist. We are guided by our colleagues and friends of the Heiltsuk First Nation, who share the secrets of their traditional territory with us.

Wolves were thought to have arrived in North America from Asia almost 750,000 years ago and roamed every place where ungulates, or hooped animals, were found. During the past few centuries, however, my ancestors and maybe yours relentlessly persecuted them with guns, traps and poisons. Humans also placed cities and farmland over much of the habitat favored by wolves and their prey. The wolf population declined an order of magnitude, and over 40 percent of

their North American range was lost. The rainforest wolves I have come to meet this evening have been spared this fate. They still occupy a landscape not the domain of humans. They are truly vestiges of the past, but their future is far from secure.

Wolves are fed by their feet, so a Russian proverb proclaims, and our research tells us that wolf feet on the coast almost invariably lead them to Sitka black-tailed deer, the smallest of the ungulates in North America. These deer require old-growth forests, a landscape with which they have evolved over millennia. Timber companies are now starting to efficiently convert this heritage to dark, closed-canopy forests that offer much less forage to support deer, which provide food for wolves and local subsistence deer hunters. Roads, a legacy of logging, grant easy access into previously untouched wilderness to those who choose (and are permitted by the British Columbian government) to kill carnivores for “sport.”

I have waited an hour in my hiding spot, when out the wolves trot. There are four pups and three adults—data

we need. Stretching then trotting, their noses graze the ground for smells. This is how they view their world. When something interesting is in the air, they raise their heads to sniff. The wind has shifted, and tonight I become the interesting smell. The one I later identify as the mother, or breeding female, becomes particularly attentive. Wolves are so expressive. Even at a distance I can easily observe a conspicuous change in her demeanor.

Tail up, she runs the first 50 of 100 meters (55 of 109 yards) toward me. She then slows and winds her way closer, stopping to smell, defecate, urinate and scratch her feet. My turf, she says. I agree. She is concerned about her pups—her genetic contribution to the future. I feel like an intruder and want to express to her that I mean her and her family no harm. Indeed, I’d like to help.

After several minutes of avoiding her glare from 10 meters (11 yards), I relent, lock eyes with her and say softly, “Hey wolf.” She withdraws from her assertive stance, as if now a hand-shy dog. Tail flops down, ears relax. Even a swooping raven, which makes a timely aerial entrance, spooks her now. As casually as she

can muster, she walks away, trading glances with me and her family members that are watching the interaction. The world is but a stage and all the animals merely players.

This sounds like exciting work, you’re thinking. I’m thinking how lucky I am to finally see these animals close up. Our research team has surveyed a rugged coastal landscape greater than 30,000 square kilometers (11,700 square miles) this summer (2000) and have collected a small mountain of wolf scats. These fecal encounters have outnumbered observations of their depositors some 100 to 1. Glamorous our task is not most of the time.

Feces and other wildlife goodies, however, are full of interesting stories. The remains of the creatures within scats are informing us about how coastal wolves make their living. And the DNA in wolf scats is granting us information about their evolutionary history, population size and how they use this archipelago landscape. Fur from wolves and their prey can be assayed using stable isotope analysis, a chemical tool that allows us to reconstruct food web dynamics and ask evolutionary questions about wolf predation on deer.



Above and left: The rainforest wolves use estuaries as meeting areas, or rendezvous sites, during late summer and early fall, gorging on spawning salmon.

Right: When something interesting is in the air, wolves raise their heads to sniff.



The gray wolf is the apex carnivore of the "Great Bear Rainforest," a nearly pristine, but largely unprotected, temperate rainforest on British Columbia's mainland coast.

coastal life. "Save the Great Bear Rainforest!" we hear in the media and the streets. As conservation biologists, we are trying to figure out how to preserve this ecological legacy.

The breeding female now joins the rest of her family some 100 meters (109 yards) away. She slowly spins two revolutions and flops down to curl up in the grasses. Perhaps she knows I'm not an imminent threat. She cannot possibly know, however, that other members of my species are drawing up plans to divvy up her territory into logging cut blocks.

The pups continue to be pups—noses sniffing, tails wagging and tongues hanging. They play hide-and-seek around a wind-felled western red cedar. I tread softly back to my boat as the sun disappears behind the old-growth horizon. ■

The Raincoast Conservation Society (www.raincoast.org) first recognized the need for this project and searched for the funds to make it a reality. The government and timber companies that are rushing to "develop" this landscape have invested little to learn about its creatures. Raincoast steps in so these gaps can be filled.

The information we collect is important; the wolf is an ideal focal species around which land-use plans are being designed. If these wide-ranging and sensitive animals can be protected, so too can (most) other

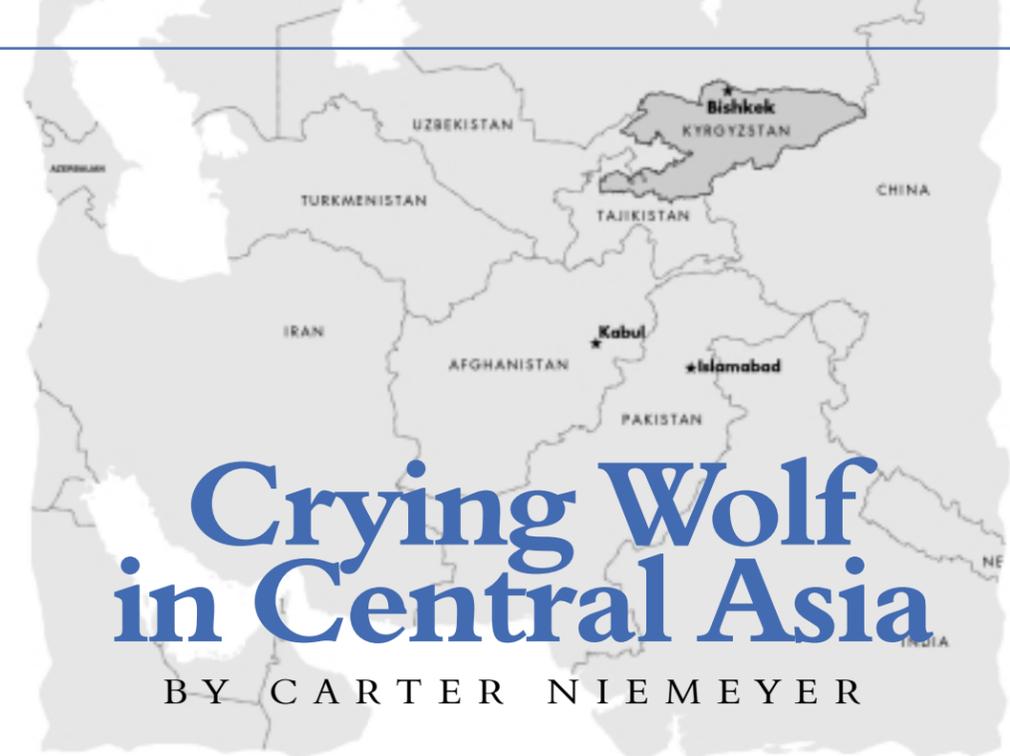
Chris Darimont is a Ph.D. student at the University of Victoria, Canada. He studies wolf-deer-salmon systems. He hopes that rainforest wolves can continue to live as they have for millennia—fishing for abundant salmon in clear rivers and hunting deer through stands of giant cedar trees.

Further reading (early products of the Rainforest Wolf Project):

-  Darimont, C. T., and P. C. Paquet. 2000. *The Rainforest Wolves of Coastal British Columbia: Findings from Year 2000 Pilot Study and Conservation Assessment*. Technical Report prepared for the Raincoast Conservation Foundation, Victoria B.C. 37 pp. Available at www.raincoast.org. 
-  Darimont, C. T., and P. C. Paquet. 2002. "The Gray Wolves, *Canis lupus*, of British Columbia's Central and North Coast: Distribution and Conservation Assessment." *Canadian Field-Naturalist* 116: 416–22.
-  Darimont, C. T., and T. E. Reimchen. 2002. "Intra-hair Stable Isotope Analysis Implies Seasonal Shift to Salmon in Gray Wolf Diet." *Canadian Journal of Zoology* 80: 1638–42.
-  Darimont, C. T., T. E. Reimchen, and P. C. Paquet. 2003. "Foraging Behaviour by Gray Wolves on Salmon Streams in Coastal British Columbia." *Canadian Journal of Zoology* 81: 349–53.



Humans developed much of the habitat favored by wolves and their prey, but the rainforest wolves still occupy a landscape not the domain of humans.



Crying Wolf in Central Asia

BY CARTER NIEMEYER

Recently I was invited to visit the central Asian republic of Kyrgyzstan to appraise the problem of wolves and jackals preying on domestic livestock. I jumped at the chance. My friends thought I was crazy to travel so close to Afghanistan, and they made plans to divide up my belongings in the event I disappeared. But to me, the trip sounded like an adventure.

I have spent the past three years as the U.S. Fish and Wildlife Service's wolf recovery coordinator for Idaho, and before that I was a wolf specialist and trapper for U.S. Department of

Agriculture Wildlife Services in Montana for more than 25 years. Apparently my reputation preceded me, and Winrock International and American researcher C. J. Hazell kept after me to make the trip to Kyrgyzstan. I finally did it in November 2003. I arrived in the capital city of Bishkek at 4 a.m., slept for four hours, was given business cards printed in Russian, and began planning my work by 10 o'clock that morning.

The country looks and feels remarkably like Idaho, except that there's no heat, little running water, in most cases no indoor plumbing

and sometimes no electricity in the villages (depending on what day it is). The mutton and poultry are chewy, and the vodka plentiful. What more could a guy ask for?

The first thing I discovered about Kyrgyzstan was that I needed to return again someday, not just because I found the simple, hardscrabble lifestyle appealing, but because I couldn't accurately assess the impacts predators were having on livestock in a mere three-week visit. I never did see any wolves or jackals. The wolves were still high in the mountains when I was there. The group I traveled with tried to



As a big, blonde American, Niemyer contrasted greatly with the dark-haired, olive-skinned people of Kyrgyzstan.



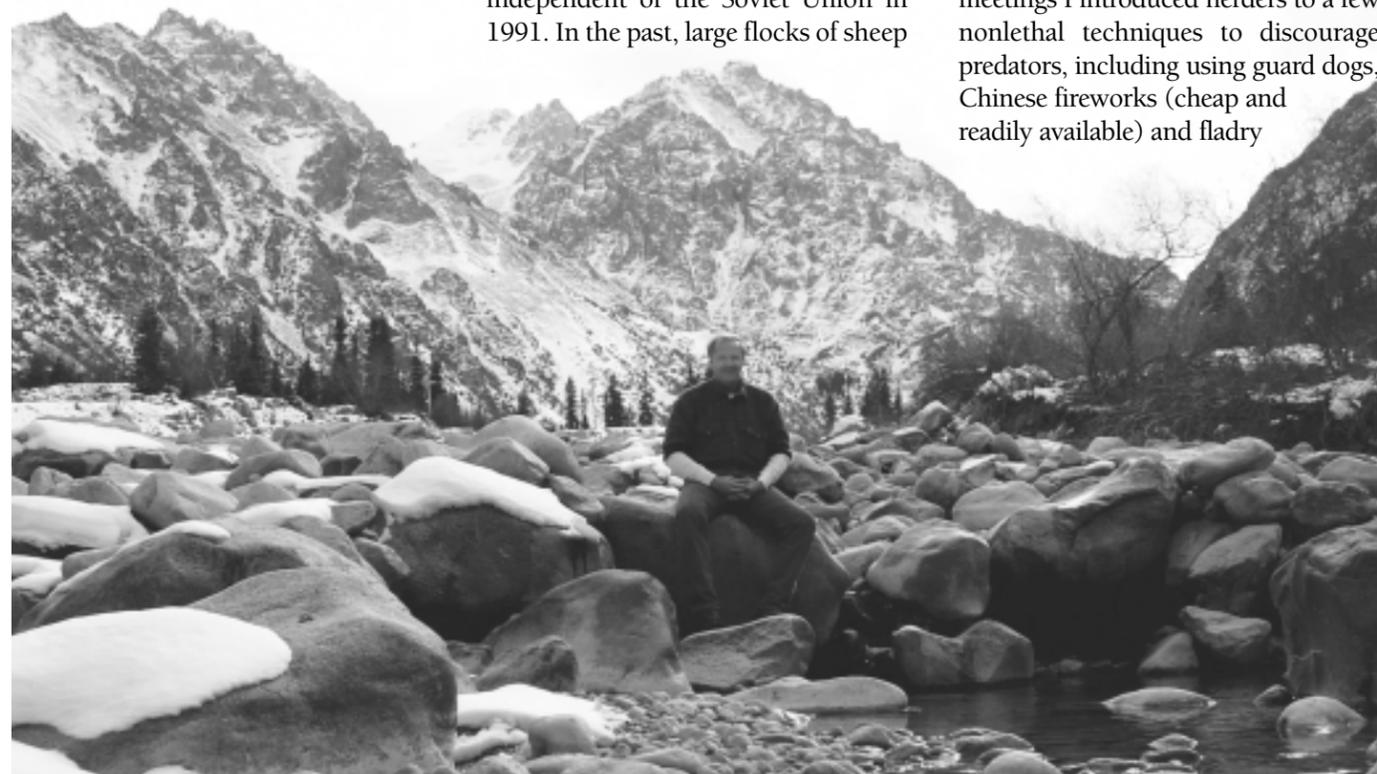
Kyrgyzstan is about the size of Minnesota and contains 4.5 million goats and sheep. Herders usually ward off predators by accompanying livestock on foot or horseback or by wagon.

ALL PHOTOS BY CARTER NIEMEYER

locate jackals by spotlighting at night and using predator calls but managed to bring only hunters, trappers and sometimes poachers out of the woods.

The Kyrgyz people speak primarily Kyrgyz and Russian, so that was something of an obstacle, even though I was provided with an interpreter, Chyngyz. My being a big, blonde American caused a stir wherever I went. I am six feet six, and contrast greatly with the dark-haired, olive-skinned people there. They stared and whispered wherever I went. At mealtimes, however, people are seated according to age, and I was always seated in the position of honor, so being older is a positive trait in Kyrgyz culture. Some of the men even talked about trying to find me a wife while I was there. I laughed and quickly changed the subject. On the downside, using their outhouses in the dark armed only with a flashlight and toilet paper from home

Kyrgyzstan looks and feels remarkably like Idaho.



would make anyone appreciate the facilities we have in America!

I traveled for three weeks in a tiny car with my knees practically under my chin as C. J., Chyngyz and my driver, Kalyk, made our way over potholed pavement and muddy roads. In the villages we asked shepherds and farmers to tell us about their predator problems. The villagers' stories of marauding wolves seemed exaggerated, but in a country where there are so many sheep and goats, there is bound to be some depredation. I saw similarities between ranchers in this remote country and those in the United States. Both face a battle trying to produce and market a commodity while the costs of labor and management, supply and demand, disease, predators and a host of other problems chip away at their livelihoods.

Kyrgyzstan is about the size of Minnesota and contains 4.5 million goats and sheep and about 6,000 wolves, according to government figures, although that estimate seems high to me. The country became independent of the Soviet Union in 1991. In the past, large flocks of sheep

and herds of cattle and horses were managed on collective farms. The government used to hire professional hunters mostly to control wolves, but with the collapse of the Soviet Union went the big livestock operations as well as the predator control programs. Now, most Kyrgyz people who own livestock have only a few animals and little experience protecting their herds. The average person makes about \$125 a year, which means that losing even a few animals can be economically devastating.

Wolves in Kyrgyzstan are not protected under any laws and have a significant advantage over ranchers because of the rugged terrain the animals choose to occupy. Also, the country is so impoverished that it cannot do much to control predators. Herders usually ward off predators by accompanying livestock on foot or horseback or by wagon. Owning firearms is illegal for the most part, and bounties are offered for dead wolves but are not always paid. Wolf fur is of little value. In a series of village meetings I introduced herders to a few nonlethal techniques to discourage predators, including using guard dogs, Chinese fireworks (cheap and readily available) and fladry

(twine with red ribbon that we have been testing as a barrier around herds and flocks in Idaho). They seemed intrigued by all of this but got straight to the point: "Can you get us guns?" they asked through my interpreter. America's reputation as a country with easy access to everything followed me everywhere.

Farmers in Kyrgyzstan are on the verge of building a new agricultural infrastructure, and wolf and jackal depredations need to be quantified. But without the basics—access to four-wheel-drive vehicles and fuel—assessing predator populations and depredation problems is nearly impossible. The most realistic way to prevent depredation is not a government-sponsored predator-killing program but for shepherds to stay with their flocks and possibly use the nonlethal techniques I showed them.

Before I left Kyrgyzstan, I was interviewed in Bishkek by reporters from a newspaper, a magazine and a television station, and I expressed my opinions about livestock depredations in America and gave them my observations about Kyrgyzstan's predator situation. Much of my

Comments about Wolves from Kyrgyz Shepherds and Herdsmen

Wolves will play with horses, and when the horses come close out of curiosity, the wolves grab them.

In winter, when sheep, cattle and donkeys are kept together, the wolves will kill the donkeys first.

When herders kill wolf pups in their den in the spring, the adult wolves will "revenge kill" their flocks.

Wolves will often travel great distance to kill livestock away from their den sites.

Only certain wolves kill sheep, while other wolves kill only horses.

White wolves are bad killers.

Old wolves are very smart.

Some farmers think that hunters should not kill the wild game so the wolves have natural food and do not depend on livestock.

Wolves wait until the herders sleep to kill their sheep.

In summer, wolves kill and eat marmots.

When horses are "hobbled," they are very vulnerable to attack by wolves.

Wolf teeth are hung around a baby's crib for protection.

Wolf depredations occur from midnight until 5 a.m.

Wolf tendons have medicinal values and are used for good luck when gambling.

If people steal your money, you can take a wolf tendon to a "medium" and they will cast a spell on the thief.

Wolf fur is prestigious and worn as a vest or coat, often by Kyrgyz leaders.

Wolves can smell shepherds when they are around. (Farmers had a good laugh at this comment.)

Most depredations are near the farms (kasharas) in winter.

The number one cause of death of livestock in Kyrgyzstan is disease.

The farmers lack material to put window covers on their farm buildings to keep predators out.

Farmers do not use lights to deter predators, because most lack electricity.

Some farmers don't respect the wolf because they think God put the wolf on earth to kill livestock.

In the Muslim religion it is wrong to eat livestock that is killed by a wolf.

When you refer to someone as a "wolf" in Kyrgyzstan, what does that mean? A man steals like a wolf. A strong man is called a wolf.

message was lost in translation, but I emphasized that documenting and trying to prevent predator damage from occurring in the first place was the most realistic way of getting a handle on the problem. An official with the Hunting and Forestry Service in Kyrgyzstan had the last word in one story when he said, "It is time to clean the guns." He encouraged a bounty system for wolves and wanted to help the few shepherds who own guns register their firearms.

Where have I heard all this before? If nothing else, I tried to be a good ambassador for the United States. Kyrgyzstan's "wolf problem," however, is much like wolf problems in the United States: lots of perception peppered with a little bit of reality. The wolf's reputation worldwide has not changed with the times. ■

Carter Niemeyer is the Idaho Wolf Recovery Coordinator for the U.S. Fish and Wildlife Service.



At mealtime, Niemeyer was always seated in the position of honor.



Learning about Wolves Leads to a Wedding

How Kevin and I met is not the typical boy-meets-girl story. We met on a wolf research course at the International Wolf Center offered by the community college in Paramus, New Jersey, where I was taking classes. The course sounded like the trip of a lifetime. I registered and began preparing for the course.

After I signed up, however, I decided not to go. Then something happened to change my mind. In March 2002, my literature professor, age 47, died suddenly. His passing was evidence that life is too short. I decided to go to Minnesota—the credit card bills could wait, but the trip could not.

During the bus ride from Duluth to Ely, I began to get to know my pack, talking with almost everyone. I noticed a quiet person in the back of the bus. Kevin was definitely the lone wolf of the group. Little did I know that by the end of our trip, the lone wolf and I would be starting a new

friendship that would blossom into a wonderful relationship.

Kevin and I hope to return to



Beth McCafferty and Kevin Porro, who will be married in August 2004, met while attending a wolf research course at the International Wolf Center. Credit:



Beth and Kevin met while attending a wolf research course at the International Wolf Center. In back (left to right), Beth McCafferty, James Steel, Kevin Porro, Marek Kowaczyk, Doug Miller and Andre Gueldner; in front, Jaime Henderson, Kristen Theriault, Diana Caban and Marie Martin.

the Center someday. For now, we visit the Center's Web site and in particular the Wolf Watch Cam. We know that wolves need help if they are to survive, and we plan to give a donation to the Center in honor of our wedding, which will take place on August 14, 2004, in the Catskill Mountains in New York State. If we listen closely that day, we may even hear a wolf howling in the distance—even if the howl comes from one of our crazy relatives.

Beth McCafferty

Wolf Information Alert Team

What is the Wolf Information Alert Team? It's a way for members to alert the International Wolf Center about misleading information in the media about wolves (see "Notes from Home," spring 2004). When you send us articles that have incorrect information, we can respond and educate the intended audience.

One of our members has already joined the team. A life member of the National Rifle Association (NRA), he was reading their journal, *American Hunter*, and came across an article called "The Wolf Trap." He felt the article was negative and misinforming. Drawing on what he had learned from the Center, he diplomatically challenged what was written and directed the association to the Center's Web site for correct information for future articles. If he had not alerted the Center, we would not have known about the article. We applaud his efforts to educate others about wolves and to clarify what is fact and what is emotional fiction.

If you come across inaccurate published information about wolves, send it to our information experts at infospec@wolf.org, or fax it to 218-365-3318. If possible, send a copy of the article, the name of the publication or program and/or the address of the Web site that contains the suspect information. We may then be able to send out a helpful correction. For wolves, please become part of our Wolf Information Alert Team.

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New Center Office Will Welcome Pups to Minnesota

After many years in an urban office building, the International Wolf Center office pack moved to a new den site with lots of trees, large and small wild critters and even a pond. Translocated staff members affectionately call it "Heaven." Our administration and outreach education office is now in a suburb of Minneapolis at French Regional Park on Medicine Lake.

"Our goal in moving to a new office is to provide more outreach programming in a large metropolitan area. The new site is uniquely placed in a wooded setting with much

more room for program presentation," noted Executive Director Walter Medwid.

First on our program agenda is a "Welcome to Minnesota!" event for our new pups in mid-May. Activities for all ages are planned before the pups make the journey to their new home in Ely. Visit our Web site, www.wolf.org, for more details. Come join us! You are always welcome—in May or anytime. Call 763-560-7374, ext. 221, and we'll give you a personal tour. Our address is 12615 County Road 9. We'll be the ones with the wolf exhibits on display.

The International Wolf Center's new Twin Cities office is located at French Regional Park near Medicine Lake.



Jim Williams Heads International Wolf Center Staff in Ely

From Yellowstone National Park to Ely, Minnesota, Jim Williams is helping educate people about wolves. Williams, 34, replaced Gretchen Diessner to become the Center's assistant director for education in early January. He will oversee the organization's Ely educational flagship facility and Twin Cities and national outreach education staff.



Jim Williams became the International Wolf Center's assistant director for education in early January.

"Jim comes to us from the Yellowstone Association in Wyoming, where he managed educational programs for more than 3,500 students a year, taught backcountry field courses and worked in partnership with national, state and local agencies," said Center Executive Director Walter Medwid. "We're delighted to have someone of his caliber to work with our terrific Ely staff and the community."

Williams earned his B.S. in psychology from Yale University and continued his education at Rutgers University until he became director of sales and operations for Out West Global Adventures.

"I have long admired the International Wolf Center as a model of educational excellence and professional integrity," said Williams. "The Center's museum and live wolf exhibit, educational programs, and publications stand among the best in the country and make a real difference for the survival of wolves throughout the world."

Williams said, "Ely has the warmth of a small town, the cultural life of a small city and the wilderness opportunities of a national park. Plus, my dog Pea loves it. What more could I want?" ■

INTERNATIONAL WOLF CENTER
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NOVEMBER 2003–JANUARY 2004

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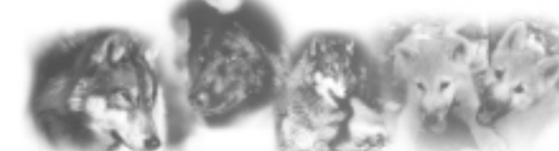
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Thank You



Tracking the Pack

It Takes a Pack to Raise Pups

by Lori Schmidt, Wolf Curator, International Wolf Center

Raising wolf pups in an educational facility like the International Wolf Center takes a dedicated, trained wolf care team with a protocol in hand; pup nannies willing to spend time, energy and resources to travel to Ely, Minnesota, and care for the pups; and a warm, dry nursery for the pups. Fortunately, the International Wolf Center has all of these.

As discussed in previous "Tracking the Pack" articles,

the pups that will be socialized for the Center's exhibit will be removed from their parents when they are between 10 and 14 days old, the critical bonding period. Research has shown that early socialization produces wolves that are more tolerant of human contact for display and veterinary care. During early socialization the pups require special care in a nursery, as they are born blind and are vulnerable to adverse temperatures. In a wild wolf den, the nursing female generally stays with the pups during



International Wolf Center

The pup nursery should be a quiet place with low light and soft bedding where the pups can cuddle, climb and become familiar with their new human caregivers.

these early critical weeks. Wolf care staff and nannies will attempt to simulate a denlike environment in the Center's new wolf lab.

The pup nursery should be a quiet place with low light and soft bedding where the pups can cuddle, climb and become familiar with their new human caregivers. Pups may attempt to suckle but may be reluctant to bottle-feed from a rubber nipple that doesn't feel, smell or taste like mom. Caregivers must be patient;



Lynn and Donna Rogers/www.bearstudy.org



Nancy Gibson (right) and Nan Vest bottle-feeding Malik and Shadow in spring 2000.

Tim Holve

it is important not to force a pup to nurse from a bottle if it is not ready. Negative conditioning can affect a pup even at this age. Generally, a healthy pup can wait a few hours to get accustomed to the bottle.

A well-equipped wolf lab also needs a good supply of rubber nipples. Flow rates of different brands of nipples may vary, causing a pup to inhale the milk if the formula flows too fast, or to give up if the rate is too slow, missing necessary nutrition. Another reason to have spare nipples relates to the development of puppy teeth. During spring 2000, when the Center's arctic male Shadow was a 44-day-old pup, he bit off the top third of the nipple. On day 45, the nipple was found in the morning scat, and the

puppies were officially weaned.

Another component of the wolf lab is a well-equipped kitchen with a refrigerator, freezer, microwave, food scale and counter space to create fresh formula (sometimes as often as every two hours). Formulas vary based on the handler's personal preference, experience and availability of ingredients. Years ago, some facilities used a traditional dog replacement formula, but recent research suggests that the amount in the formula of a necessary amino acid called arginine, while sufficient for dogs, may be insufficient for wolves. Arginine deficiency may cause cataracts in young wolves, but the addition of Knox gelatin can avoid this ophthalmic

problem. The Center chooses to create a homemade formula using fresh goat milk, plain yogurt (with fat), one large egg yolk, baby rice cereal, baby strained beef, vitamin and mineral complex (especially B vitamin) and Knox gelatin.

As any new parent knows, when food goes in, it must come out. Pups may need to be burped during and after feedings, especially if they nurse too quickly. A pup less than 12 days old may not have developed enough muscle control to stimulate urination and defecation on its own. The mother licks the anal region to stimulate the pup and keeps the den clean of waste. A human caregiver needs to gently swab the anus and genital region with a soft tissue. As the pups age,

it is important to maintain a clean area for proper health. A well-equipped lab has disinfectant, lab gloves and plenty of paper towels along with daily garbage detail.

The best measure of a pup's health is its weight and condition. Any drop in body weight or failure to gain weight can be a sign of a problem. A reliable scale is standard equipment in a wolf lab. In addition, staff may record the body temperature of a pup; an increase in body temperature may be indicative of a virus or infection. Quick intervention may mean the difference between life and death for a young, vulnerable pup. Our nursery is equipped with a stainless-steel exam table that can be sterilized, a complete first-aid kit and sufficient lighting for veterinary exams.

The Center also has a strong interest in documenting the pups' development. Through use of Web cams, digital photographs and data sheets, this information can be shared with the public. Tune into the Web site to see updates of the pups' growth and a Web cam image of the nannies in action, or stop by the Center to see them in person. ■

Wolves of the World

WOLVES IN INDIA

The Ancient Wolves of India

by Yadvendra Dev Jhala and Dinesh Kumar Sharma

In today's explored world, it is indeed a rare event to discover a new species of a mammal, especially that of a large carnivore. When this happens to be a wolf—the most well studied of the carnivores—the discovery is as thrilling as it is surprising. The Indian wolves, which were in plain sight, yet whose origins were elusive to scientists, are the source of this surprise to wolf biologists throughout the world.

Scientists recognize approximately 13 subspecies (local geographic races) of gray wolves (*Canis lupus*). These subspecies distinctions fall apart, however, when scrutinized



The peninsular Indian wolf (*Canis lupus pallipes*), above, and the Himalayan wolf (*Canis lupus chanco*), right, are genetically different from the rest of the wolves and dogs of the world (the wolf-dog clade).

Y. Jhala and D. Sharma

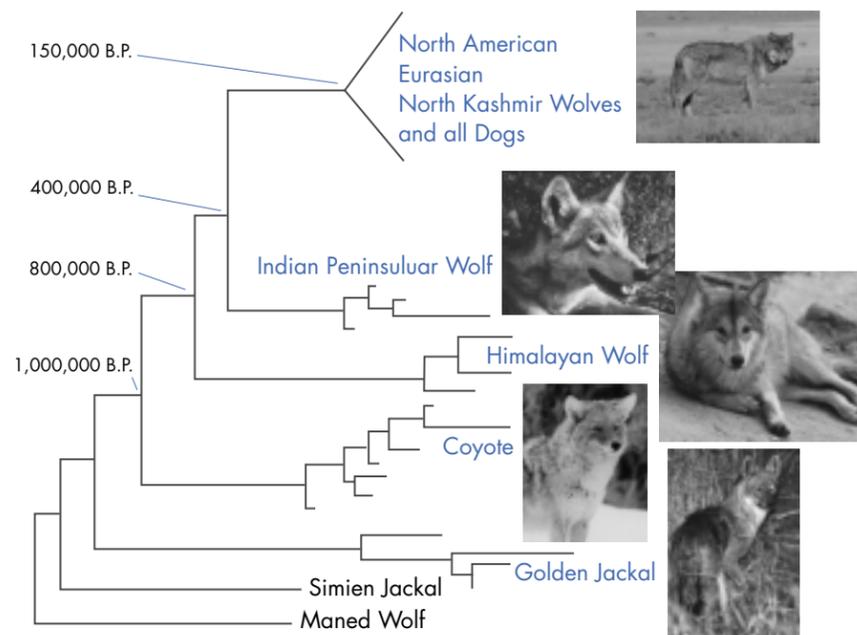
with modern genetic techniques and analysis. In fact, genetic studies have shown that all wolves and all dog breeds of the world are closely

related. Dogs originated from multiple wolf ancestors and started to diverge about 150,000 years ago. A group of species that share features inherited from a common ancestor is called a "clade." All organisms contained in one clade—in this case, the wolf-dog clade—share a unique ancestor.

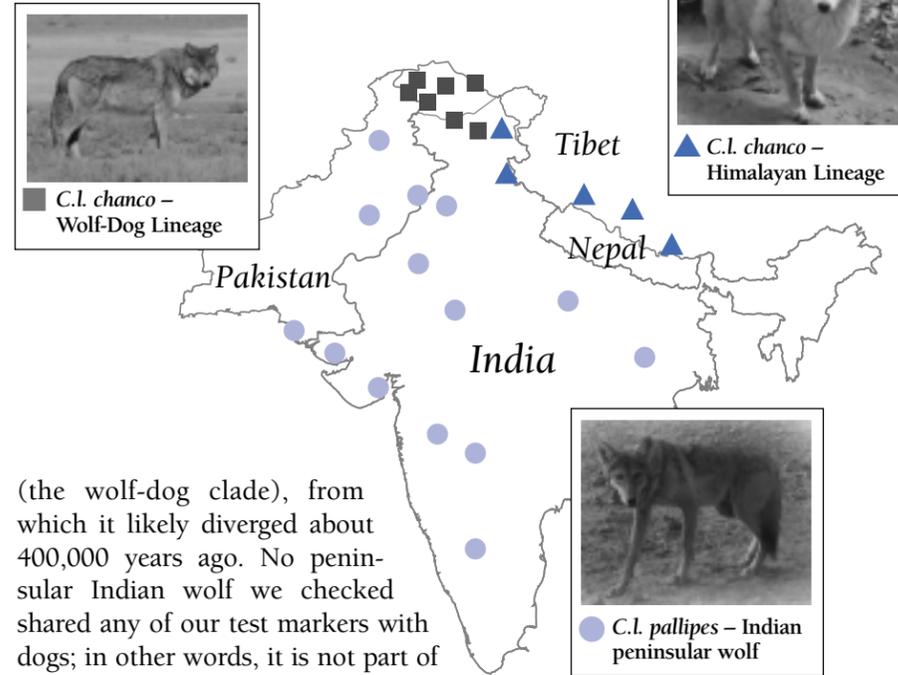
In our latest study, conducted with Drs. R. Fleischer and J. Maldonado from the Smithsonian Institution, we compared a certain kind of DNA marker in more than 700 wolves and dogs from throughout the world with those of Indian wolves and native dogs. Contrary to our expectations, our results indicate that the Indian subcontinent supports three distinct wolf lineages, two of which are very ancient and unique to the subcontinent.

The first of these ancient wolves of India is the peninsular Indian wolf (*Canis lupus pallipes*). This wolf is genetically different from the rest of the wolves and dogs of the world

Evolutionary Relationships & Times of Divergence of Wolves and Dogs Before Present (B.P.)



Distribution of the Three Wolf Lineages and Their Sampling Localities



(the wolf-dog clade), from which it likely diverged about 400,000 years ago. No peninsular Indian wolf we checked shared any of our test markers with dogs; in other words, it is not part of the wolf-dog clade.

Even more interestingly, another wolf (*Canis lupus chanco*—Himalayan Lineage), from the Himalayan region of eastern Kashmir, Himachal Pradesh, parts of Tibet and eastern Nepal, also belongs to a very ancient, divergent and ancestral lineage of wolves—the Himalayan lineage. The “molecular clock,” which times the rate of changes observed in DNA, dates divergence of this lineage to about 800,000 years ago, when the Himalayan region was going through a major geologic and climatic upheaval. This wolf, too, shared none of our test markers with the dog and is thus not a member of the wolf-dog clade.

Only the third Indian wolf (*Canis lupus chanco*—Wolf-Dog Lineage), from the northwestern Himalayan region of Kashmir, shares our test markers with the wolf-dog clade that stretches across the rest of Eurasia and North America. Thus, the Indian subcontinent includes three diverse, distinct wolf lineages. This fact makes the Indian region the likely cradle of modern wolf evolution.

All the Indian dog samples as well as dog breeds from the rest of the world are genetically related to the wolf-dog clade and thus to *Canis lupus chanco*, the wolf of northwestern India. However, none of the dogs shared any of the genetic markers we checked with the two novel Indian wolf lineages (the peninsular Indian wolf and the Himalayan wolf), indicating that these two Indian wolf lineages played no role in the domestication of dogs from wolves. The two novel Indian wolf lineages differ genetically and physically to the extent that each could represent a distinct species.

We have published this study in the *Proceedings of the Royal Society, Biology Letters*, and highlight the conservation importance of Indian wolves. The peninsular Indian wolves as well as the Himalayan wolves are considered endangered, and both are protected by law. The peninsular wolves are widespread and number two to three thousand. We have

extensively studied the ecology and behavior of these wolves during the past decade. In comparison, the status of the Himalayan wolves is unknown, and no systematic scientific studies of these wolves have been done to date.

Wolves throughout India and the Himalayas are persecuted for attacks on livestock. Additionally, they are threatened by habitat loss to agriculture and a rapidly growing human population. The Himalayan wolves may be one of the most endangered canids in the world.

Yadvendra Dev Jhala is a faculty member of the Wildlife Institute of India and heads the Department of Animal Ecology and Conservation Biology. He is a member of the IUCN SSC Wolf Specialist Group, Canid Specialist Group and Hyaena Specialist Group and is a research associate of the Smithsonian Institution.

Dinesh Kumar Sharma is a research associate of the Wildlife Institute of India. He received training in molecular genetic techniques at the Smithsonian Institution and manages the Conservation Genetics Laboratory facility at the Wildlife Institute of India.

WOLVES IN THE UNITED STATES

Wolf Pair's Death Turns a Chapter in Yellowstone

by Dan Vergano

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The deaths this month of two wolf sisters, the last of the Canadian wolves transplanted to Yellowstone National Park eight years ago, closes an era in the successful, and contentious, effort to reestablish wolves there, biologists say.

The pair were released in the 2.2-million-acre park, which spans parts of Wyoming, Idaho and Montana, in 1995-96, joining 29 other wolves in an effort to reintroduce a predator

wiped out in the 1930s. More than 300 wolves live in and around the park today.

“Now none of the original ones are left,” says Yellowstone Wolf Project chief Doug Smith of the National Park Service. “And how these died is indicative of how wolves are typically killed—by other wolves and by people.”

One sister, dubbed 42F but known as “Cinderella,” was killed February 2 by a rival wolf pack. Her sister, 41F, died 10 days later, ill with mange and limping from an injured leg. Game officials shot her after she killed a newborn calf.

Cinderella earned her nickname four years ago after helping kill a third sister, 40F, after suffering years of domination.

But rather than indicating disaster, the deaths point to success in the

program to bring wolves back to Yellowstone, Smith says. Wolves there are expanding their domains and getting into fights with greater frequency as things get crowded.

“It’s all about politics with wolves now; it’s not biology,” says longtime wolf watcher Ralph Maughan of Pocatello, Idaho. As territories shift in the park, deaths such as 42F’s are “like something out of Shakespeare,” Maughan says.

Like Macbeth without his Lady, 42F’s partner, the park-born male wolf dubbed 21M, is left to hold together his Druid Peak wolf pack

Below: F42 and M21 were the breeding pair of the Druid Peak pack until F42’s death in February 2004.



News and Notes



Dave Bopp

against other packs. Female and male alpha wolves, such as 42F and 21M, typically dominate their pack, acting as the sole breeding pair and leading the others on hunts. "The female alpha is usually the glue that holds the pack together," Maughan says.

After spending several days howling for his mate, 21M picked a new alpha female. So far, the pack is holding together, Smith says.

The death of 41F illustrates a source of contention in human politics over wolves. Wolves kill livestock—less often than was first predicted a decade ago, Smith says—but some ranchers say they aren't fairly compensated for such losses. "Wolves play an important role in the wilderness, but there are always going to be conflicts with people and those will have to be managed sensibly," says Walter Medwid of the International Wolf Center in Minneapolis.

In January, the U.S. Fish and Wildlife Service announced plans to "delist" the wolf from endangered to threatened status in Western states, citing the existence of more than 600 wolves total in Wyoming, Idaho and Montana. The move would allow ranchers to kill wolves caught preying on livestock without calling in federal officials.

With the death of the Yellowstone sisters, only one Canadian wolf nationwide remains from the 1995-96 reintroduction. A 14-year-old male wolf, B2, still lives in Central Idaho, the last of 35 wolves transplanted there at the same time as the Yellowstone wolves. A Methuselah among wolves, who typically live six years, B2 has taken up with a female and started a new pack, much to biologists' surprise. ■

Ethology and Behavior ad



WOLF HYSTERIA may result from a recent statement issued by Secretary of the Interior Gale Norton. Her statement issued March 3, 2004, seems to imply that wolves are endangering children when she spoke of wolf management plans in Montana and Idaho that included "[wolf] management tools critical to protect children, property, pets and livestock." There is no documentation of wolves killing, injuring or threatening children in the 48 contiguous states since the Endangered Species Act was passed in 1973 and wolf recovery began.

WOLF DELISTING SNAG. The U.S. Fish and Wildlife Service rejected Wyoming's wolf management plan, thus delaying a proposal for wolf delisting in the Western Distinct Population Segment. Unknown at this time is whether Wyoming will try to resolve this issue by suing the USFWS or via new legislation. USFWS Director Steve Williams recently estimated that the soonest wolves in the West could be delisted was early 2006.

WOLF PUPS GALORE. Once again as spring comes, large numbers of wolf pups will be produced by populations everywhere, helping to replace wolves killed the previous year. Thus, for example, in Wisconsin alone, conservatively some 400 to 600 pups will be born.

WOLF DEPREDATIONS ON LIVESTOCK in Minnesota were down in 2003, reports U.S. Department of Agriculture Wildlife Services' Bill Paul. Only 120 wolves

had to be killed, compared with 138 in 2002. Depredations fluctuate as a result of changes in natural prey numbers and wolf population size, along with other unknown factors.

WOLF ACTIVITY AND SOCIALITY were the subject of a new article published by Sam Merrill and Dave Mech. "The Usefulness of GPS Telemetry to Study Wolf Cicadian and Social Activity" appeared in the winter 2003 issue of *The Wildlife Society Bulletin*.

ISLE ROYALE WOLVES HAVE increased again to 29, according to Dr. Rolf Peterson, project leader. On the other hand, moose have decreased to 750, down from 900. Ticks and warm weather may have made more moose vulnerable to wolves.

MAMMOTH WOLVES. Wolves killed at least four elk in the town of Mammoth, Yellowstone National Park, in February, yielding a varied response from local residents. It is one thing to see a bloody carcass strewn over the landscape in the far reaches of the park, but 50 yards from the school is quite another. Park officials, however, advise local citizens to remain calm and take safety precautions like they would for other large, potentially dangerous park denizens: elk, moose, bears and bison. "After all, you live in a national park."

Daniel J. Cox



WOLF RECOVERY has been greatly facilitated by the federal Endangered Species Act (ESA). However, as the ESA reaches its 30th birthday, the House Committee on Resources in the U.S. Congress announced that it "is going to start working on meaningful reform" of the act.

WOLVES, the new book edited by Dave Mech and Luigi Boitani was awarded "Honorable Mention" in the Single Volume Science Reference category by the Association of American Publishers. ■

Personal Encounter

Ellesmere Island Journal

Text and photos by Rolf Peterson

23 July 1989, a few minutes after "midnight"

I was sound asleep when Mary yelled, "Rolf! A wolf!" I sat bolt upright and fumbled around for my eyeglasses and binocs. Fifty yards in front of the tent was "Mom"! Mary had had trouble staying awake and had feared she might miss a wolf coming through [the mountain pass]. But she looked up when a jaeger

squawked, the very bird that has been cleaning up arctic hare parts we left up in the pass. Mom hit the hare trail quickly, seeking out each tidbit, which Mary had cut up to slow the wolf down if she did come by. Mom had nothing in her mouth when she arrived from the west, but she had a little difficulty stuffing all four hare legs in her mouth at once for carrying. Her stomach looked full, and she hardly glanced at us as she quickly resumed her easterly heading.

For 10 days Mary Maule and I had been searching the Ellesmere Island landscape, 600 miles from the North Pole, for a wolf den. Before that, Mary and Dave Mech, director of the study, had spent three weeks doing the same thing. Dave could identify Mom, the breeding female of the previous three years, and from the appearance of her nipples deduced that she was nursing pups somewhere. But she was not using the traditional rock den of this pack, as in the

The wolves of Ellesmere Island have been observed by Dave Mech and colleagues since 1986.



Researchers searching large areas with ATVs were often stopped by snow and the terrain.

previous three years, and she did not appear interested in making our search any easier.

We had the ATVs gassed up, ready for a "chase," so Mary took off [immediately], and I followed as soon as I could hop into my various layers of clothes. Mary skirted the small valley we'd explored earlier on foot, and I tried to stay with the wolf. Couldn't negotiate the downslope, however, and watched helplessly as Mom popped over a ridge, out of sight. We had walkie-talkies, and Mary reported she couldn't see the wolf at all. I heard a wolf howl to the east... in trying to hear it I momentarily lost my glasses as I tore off my face mask... I stayed put, hoping Mom would reappear on a more distant ridge... Within a few minutes the wolf surfaced again about 1/2 mile away... we had established a direction of travel and gotten a little further along her route...

Hoping to parallel her direction of travel, I went up as high as I could on Blacktop [ridge] without hitting extensive snow, then went as fast as I could... Mary continued in the

same direction at a lower elevation, but within 1 to 2 miles we were both stopped by a huge chasm that extended across our path and on into the snow on top of Blacktop. Not possible to continue, so I just stopped and scanned the huge expanse of land before me.

The landscape is treeless and virtually all gravel, with almost no vegetation. NASA uses a similar island south of Ellesmere to simulate the surface of Mars. A thin ground surface layer thaws each summer, when the July mean temperature rises to 0 degrees C, but below that everything is frozen. Everything alive is supported by the thin film of thawed ground and the water it contains.

Our fortunes turned suddenly as Mom reappeared in my binoculars, which at the moment were trained at a light-colored ridge that was along her direction of travel. We had noted

wolflike rocks earlier, but how many times had we said the same thing elsewhere, with no results.

Mom continued north on this ridge, now just over 3 miles away (we figured that out later). She stopped at a small rock outcrop and nosed around, but I couldn't see clearly what she was doing at such a long distance. Soon she dropped off the ridge to the west and seemed to lie down, and my hopes began to rise—she shouldn't stop like that if still en route home. Still, if she faced a very long trip, maybe she would stop to eat the hare parts she'd been carrying. A few minutes later she rose and headed back up onto the ridge, and then I could make out a tiny speck (pup?!!) following her. Many times before, however, I'd seen tiny specks that seemed to move, yet with binoculars they turned into very immobile rocks. Mom nosed around the rock outcrop on top of the ridge, and the speck was lost in rocks of the same color. She soon started down the other side of the ridge, to the east across a broad green valley, and continued

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for about 1/4 mile. Maybe the ridge was just a stop after all, an old kill or something else of note. At least I could hope to see her for some distance (several more miles) if she kept heading toward a distant musk-ox herd [visible 5 to 10 miles away].

Then she stopped, stood still for half a minute or so, then reversed direction, back up onto the ridge, and again nosed around the rocks for a short time before once again going down the west side of the ridge, where her white coat contrasted sharply with the dark brown hummocks. This time a tiny gray speck seemed clear behind her, and it seemed to follow her. Mom dropped out of view, but the tiny speck remained on the dark background, and I could mentally plot its location next to a prominent rock.

By now I'd been out of radio contact for over half an hour, and Mary called to report no wolf in view. . . . I told her I could still see Mom but didn't dare mention the possibility of a den. With my glasses off I could

see better through the 10 x 40 binoculars, but I was at the limit of discrimination and still wasn't absolutely sure what I was seeing, except that it definitely was one wolf [Mom] walking around. Even with elbows resting firmly on the handlebars, my heartbeat and watering eyes from the slight breeze continually blurred things. But if the tiny speck moved, then I felt I could be sure this was indeed the den.

Mary called on the radio again, and we finally deduced where we both were; when I again took a look through the binocs, the little gray speck was gone! It just had to be a pup, so this had to be a den! I told Mary to try to get to my location and that I thought I had spotted their den. I don't know if she believed me or not. After all, several times before I'd hollered "wolf" and it turned out to be a hare, or a rock or something else. At least by the time Mary arrived, Mom had reappeared on the ridge, and it was clear to both of us that it was indeed a wolf, and the rocks sure looked good.

In another five hours we had gathered up our gear and negotiated 5 miles of rough terrain on the ATVs. As we neared our destination . . .

we stopped and had a look at some low-lying rocks, and right within view, on a green, velvety lawn of grass, was Mom bedded next to a pile of pups!! Our travels were finally over, and the long-sought goal stared right back at us.

We enjoyed three glorious days watching the den site from a mile away, afraid we might spook the wolves if we moved closer. Mom and Whitey, her 2-year-old daughter, were the only adults we saw, busy tending four pups. The two adults seemed to compete for the attention of the pups, and Whitey was clearly dominant to her mother.

Whitey took a stringy piece of musk-ox and led a pup down the ridge, doing play bows and wagging

her tail to entice the pup to follow. When the pup got close, Whitey would move further, always keeping the "prize" just out of reach of the pup. They went out of view over the ridge, but they reappeared in five minutes, Whitey still holding the trophy and the pup still following.

Later the same day . . .

Whitey was lying near two pups, also bedded. Whitey howled a few times but remained bedded, and the two pups quickly sat up on their haunches and started in—they're old enough to do more than yipping but not much of a sustained howl. Tears welled up in my eyes when I heard this first howl—must be at least five years since I've heard pups howl at Isle Royale, and I sure miss it. This must be a preparatory howl for Whitey—maybe she's thinking of leaving again. ■

Research on Ellesmere Island has revealed unique information about the behavior of wolves and young pups near their dens.



Rolf O. Peterson is a professor of wildlife ecology at Michigan Technological University and serves on the board of directors of the International Wolf Center. He has been involved in wolf research on Isle Royale since 1970 and has directed long-term studies of wolf-moose ecology in this island national park since 1975.

For further information about this wolf pack, see the following:

- 🐾 Mech, David L. "At Home with the Arctic Wolf." *National Geographic*, May 1987.
- 🐾 Mech, David L. *The Arctic Wolf: Ten Years with the Pack*. Stillwater, MN: Voyageur Press, 1997.
- 🐾 *White Wolf*. VHS. National Geographic Society, 1988; available from www.wolf.org.



The vast landscape of Ellesmere Island is treeless and virtually all gravel, with almost no vegetation.



**LEAVE YOUR KIDS
SOMETHING A LITTLE
MORE IMPRESSIVE
THAN SILVERWARE.**

Photo by Lynn Rogers

To some, the most precious legacy we can pass on to the next generation is a world where nature can still coexist with humans in a mutually beneficial relationship. The International Wolf Center's Alpha

Legacy Program recognizes the generosity and foresight of those individuals who have included the Center in their estate plans. Together we're working to secure the survival of wolves. For information on how you can be a part of this program, please contact Walter Medwid,

Executive Director, International Wolf Center,
12615 County Road 9, #200, Minneapolis, MN 55441.
(763) 560-7374. Or e-mail wmedwid@wolf.org.

INTERNATIONAL WOLF CENTER

Wolf Tracks

Wolf Wanderings: Where Next?

by Jay Hutchinson

Wildlife researchers have documented for years how young gray wolves disperse to find a mate and territory not occupied by other wolves. The farthest documented distance that a wolf has traveled from its home pack is 548 miles, from northern Minnesota to Nipawin, Saskatchewan.

But that record distance, set more than 30 years ago, was probably through thinly populated areas with relatively few roads. Recently, wolves have increasingly traveled from

northern wolf range southward into agricultural areas, crossing interstate highways and many smaller roads. Some examples:

An ear-tagged Wisconsin wolf traveled to east-central Indiana, 407 airline miles, where it was road-killed (June 2003). How did it get around Chicago?

A wolf from the Great Lakes states (according to DNA analysis) traveled to Marshall County, Illinois, 100 miles south of Wisconsin. Mistaken for a coyote, it was shot (December 2002).

A radio-collared male wolf from Upper Michigan traveled to north-central Missouri, 450 airline miles. Thought to be a coyote, it was killed by an arrow (October 2001). (See *International Wolf*, Spring 2002, 16-17.)

In the past, often the only information available was the starting point, based on where the wolf was originally captured and marked, and the endpoint, where it was either captured again, shot or road-killed. Sometimes there was periodic radio-tracking by air. But recently, satellite tracking and Global Positioning Systems (GPS) have revealed the daily, hourly or periodic continuous movements of wolves. This technology allows a much more detailed look at a wolf's wanderings and a better estimate of the distance traversed, rather than just the straight-line distance to the farthest point reached.

One such study showed that a satellite-collared female wolf born in Camp Ripley in central Minnesota traveled at least 2,636 miles and looped back to her natal territory before being killed illegally just east of it. The farthest point she reached was in south-central Wisconsin, 306 airline miles from her starting point. She traveled this distance from March

26 to September 21 and crossed state and interstate highways (not counting county roads) at least 215 times.

A male wolf from Camp Ripley in Minnesota, also satellite-collared, traveled south away from the main wolf breeding range. He traveled 653 miles, crossed major highways at least 33 times, and reached a straight-line distance of 73 miles from home before being killed by a coyote hunter.

Wolves, if not exactly adapting, seem to be making forays well into a human landscape dominated by agriculture and roadways — a changed landscape from that which they once knew well. ■

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.

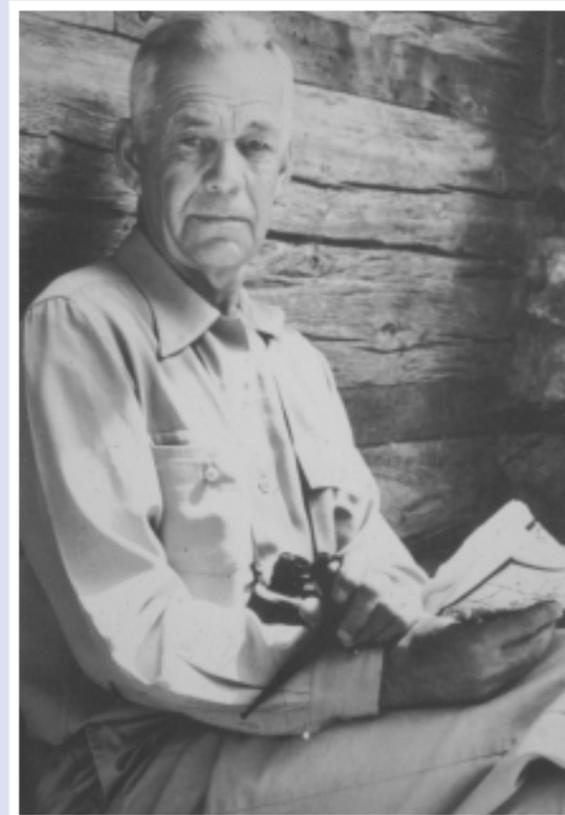


Recently, wolves have increasingly traveled from northern wolf range southward into agricultural areas, crossing interstate highways and many smaller roads.

L. David Mech

As A Matter Of Fact

Who published the first full-length scientific article about wolves in North America?



Sigurd Olson published the first article in 1938, titled "A Study in Predatory Relationship with Particular Reference to the Wolf," in *Scientific Monthly*, April 1938, vol. XLVI. ■

New Question

What are the two longest-running wolf/prey studies?

West Gate

Wolf Watch
Aboard the
MV HYAK

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Wolf Pups: On the Way to Grown Up



Lynn and Donna Rogers/www.bearstudy.org

When wolf pups are born, they are nearly helpless. They can't see or hear, and weigh only one pound. In their first months of life they grow and learn a lot. Here is a list of events or changes that a wolf pup experiences in its first year of life, but they are in the wrong order. Can you put them in the correct sequence? You may want to cut the boxes out so you can try rearranging them visually (an adult may want to photocopy these pages for you first!). ■

Hint: Think logically—what skills or abilities does a wolf pup need in order to do each thing?

<p>A. Pups leave den and move to the rendezvous site with pack.</p>	<p>F. Pups begin dominance displays with each other.</p>	<p>K. Pups are fully weaned of mother's milk.</p>
<p>B. Pups begin to pounce on grasshoppers and small insects.</p>	<p>G. Pup skeletal growth ends—they are now considered yearlings.</p>	<p>L. Wolf pups are born, hairless, unable to see or hear.</p>
<p>C. Pups begin to see.</p>	<p>H. Pups begin to hear.</p>	<p>M. Pups begin to eat small portions of meat brought back by adults.</p>
<p>D. Pups begin to emerge from the den.</p>	<p>I. Pups begin to eat food regurgitated by the adult wolves.</p>	<p>N. Pups leave the rendezvous site and begin traveling with the pack over great distances.</p>
<p>E. Pups begin to accompany adults on short hunting trips.</p>	<p>J. Pups begin nursing.</p>	<p>O. Pups attempt to howl.</p>

WOLF WORK

PERSON: Kay Winters

JOB TITLE AND DESCRIPTION:

Freelance writer who specializes in children's books; author of *Wolf Watch*.

TRAINING REQUIRED:

There are no rules that make one a certified children's book writer. I was a classroom teacher for years, which gave me a good background in child development. Once I decided to write full-time, I took a course in writing children's books at the New School in New York for three semesters. I attended conferences to meet editors, and I read all the picture books on the shelves from the

past two years at the Children's Book Council.

SKILLS NEEDED TO DO THE JOB:

Storytelling ability, grasp of language, understanding of child development, willingness to revise and revise—persistence—the ability to keep trying when it seems hopeless.

ADVICE TO KIDS:

To write children's books that are both accurate and use beautiful language, the writer needs to read, read, read. Take careful notes. Then write, write, write. The work should be rewritten and revised until every word sings. And the writer must care. It's important to care about what you are writing.



Kay Winters is a freelance writer who specializes in children's books.

Be sure to visit the "Just for Kids" section of our Web site, www.wolf.org, to read more about a pup's early life. Several articles there will help you arrange these events correctly!

Correct sequence: l, j, c, h, d, i, m, f, o, k, a, e, n, g.

A Look Beyond

A Historic Wolf Plan for Oregon

by Amaroq Weiss

1843 was a historic year for gray wolves in Oregon. A series of "wolf meetings" in the Willamette Valley resulted in wolf bounties and a decision to create a provisional government and declare allegiance to the United States. In fact, the discussion of wolf bounties was used to draw attendance for the meeting's real purpose—to establish a regional government.

In 1999, wolves and history came calling again. The dispersal of wolves from Idaho into Oregon spurred four workshops, 15 town hall meetings, extensive legal briefings by the state attorney general's office and, finally, the March 2003 announcement that the state would develop a wolf management plan.

In writing the plan, the Oregon Department of Fish and Wildlife will be assisted by a Wolf Advisory Committee representing diverse stakeholder interests, with expertise available from wolf specialists from the federal government, the Wisconsin Department of Natural Resources and the Nez Perce Tribe. The Oregon plan will likely borrow from, but mirror none, of the plans developed thus far by six other states, because Oregon does not yet have a reproducing population of packs with established territories.

Oregon state law lists the gray wolf as "endangered" and is more protective of wolves than the current federal classification, which regards wolves in the region as "threatened," subject to a rule that allows for some management options prohibited

under Oregon law. The Oregon plan will address this discrepancy in levels of protection.

The committee will draft the plan's framework and provide input regarding the final product. A draft plan should be ready for review in fall 2004. After incorporating public comment, the Oregon Fish and Wildlife Commission expects to adopt a state plan by January 2005.

The plan may face hurdles in the state legislature. In Minnesota, a wolf plan developed through months of roundtable discussions was altered following behind-the-scenes lobbying of the legislature by some roundtable members. Oregon's plan will be enacted by the commission through a rule-making process but could be short-circuited if the legislature reduces or removes state protection for wolves. Given the frenzy of anti-wolf legislation introduced in 2003, this is not a far-fetched scenario.

In short, the Oregon wolf management plan will be only as good as the intentions of the parties involved and the protection that state law maintains to conserve the wolf. Will 160 years make a difference in this state's view of the wolf? Only time, and the plan, will tell. ■

Amaroq Weiss is the Western Director of Species Conservation for Defenders of Wildlife and an appointed representative on the Oregon Wolf Advisory Committee.



Waverly Teylor