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INTERNATIONAL WOLF

A PUBLICATION OF THE INTERNATIONAL WOLF CENTER
SPRING 2014

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Address the
Declining
Wolf Population
at Isle Royale**

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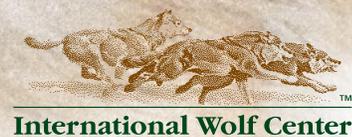


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INTERNATIONAL WOLF



VOLUME 23, NO. 4

THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER

SPRING 2014



Now What? Two Views Address the Declining Wolf Population at Isle Royale

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By Tracy O'Connell



Where Have All the Red Wolves Gone?

Red wolves were returned to the wild in 1987, following five generations of successful breeding in captivity. The wolves have established a small but robust population in northeastern North Carolina. But the hard-won success of the recovery years is now threatened by the recent loss of significant numbers of wild red wolves.

By Cornelia Hutt



Take Only Photos, Leave Only Footprints... Safely

With nearly everyone in the wild armed with some type of camera, questions have surfaced: What kind of conduct is ethical when it comes to wildlife photography, and what endangers the safety and wellbeing of photographer, wild animal and wildland?

By Elke Duerr



The Grand Bargain: Time for Revision

In the fall 2013 issue of *International Wolf*, Mike Jimenez and Steve Grooms described the "grand bargain," the deal on which wolf reintroduction in the Northern Rockies was based. This article addresses two issues not discussed in the earlier piece: anti-wolf opposition to the "grand bargain" and the need to revise the bargain to protect Yellowstone National Park wolves.

By Betsy Downey and Bob Landis



On the Cover

Sitting wolf pup at the Zürich Zoo, Switzerland
Photograph by Emmanuel Keller

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visit: <http://www.flickr.com/photos/tambako/>

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On the Brink of Extinction... The Last Wild Red Wolves

Just to the west of the Atlantic Ocean beaches of North Carolina's Outer Banks lives one of the world's most endangered wolf species, the red wolf.

Since being restored to the wild in 1987, red wolves have been making a comeback, with their numbers slowly increasing in this single, small portion of their historical range, which once included the entire southeastern United States. But the rise in gunshot mortality has slowed the population growth, and now, fewer than 100 red wolves live in the wild, all of them in the red wolf restoration region of North Carolina.



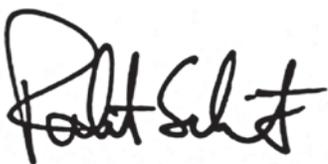
Rob Schultz

In recent months, the U.S. Fish and Wildlife Service (USFWS) has called for the assistance of the public for information leading to the arrest and conviction of persons responsible for the illegal killings. In 2013, nine red wolves were illegally killed, and another wolf was found shot in early January 2014. Concern over this issue is growing both in the region and throughout the nation, and efforts are underway to prosecute the offenders—including the offering of a significant reward.

While the International Wolf Center maintains a neutral position on wolf issues, we are adamantly opposed to the illegal killing of any wildlife, including wolves. Poaching is a serious crime, and the effects are especially harmful to an animal like the red wolf, which is protected under the federal Endangered Species Act.

As these events continue to unfold in North Carolina, the Center is monitoring the situation and is supportive of efforts to stop the illegal killing of red wolves. In this issue of *International Wolf*, we've dedicated a timely article (pages 8-10) to draw attention to this situation and the USFWS request for public assistance.

Please join us in calling for a stop to the illegal killing of red wolves in North Carolina. Over 26 years of work to restore the species to a small portion of its original habitat is in jeopardy of being lost and the survival of red wolves living in the wild is at risk if these crimes continue. ■



Rob Schultz, executive director



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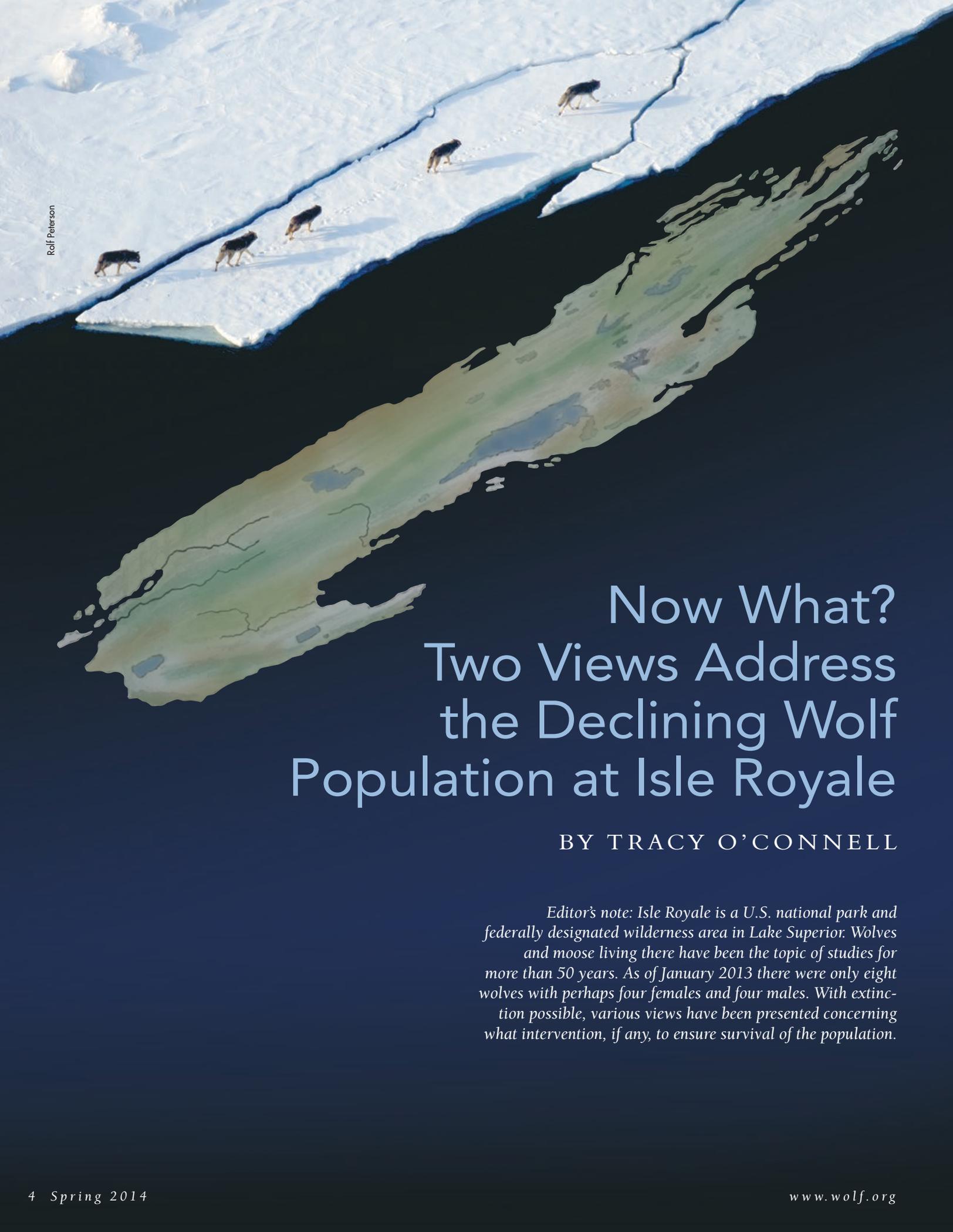
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Now What? Two Views Address the Declining Wolf Population at Isle Royale

BY TRACY O'CONNELL

Editor's note: Isle Royale is a U.S. national park and federally designated wilderness area in Lake Superior. Wolves and moose living there have been the topic of studies for more than 50 years. As of January 2013 there were only eight wolves with perhaps four females and four males. With extinction possible, various views have been presented concerning what intervention, if any, to ensure survival of the population.

Intervention in the face of nature is usually discouraged by the U.S. National Park Service (NPS), John A. Vucetich, Michael P. Nelson and Rolf O. Peterson assert in a paper published in 2012¹. The authors state that wilderness policy is “not a simple, unquestioning, and inflexible dictate for nonintervention,” adding that “a large body of wilderness policy treats the conflict (as being one) between nonintervention and other wilderness values.”

With their paper subtitled “A Case Study on Wilderness Management in a Changing World,” Vucetich, Nelson and Peterson cite an evolution in human response to wilderness over the past 150 years, arguing that ethical challenges often come from conflicting values. They note, “The appropriate approach is to acknowledge and understand all of the values at stake and then develop a perspective or position that would least infringe upon that set of values. We adopt this approach here.”

The paper was written following 2012 reports that the Isle Royale population was comprised of nine wolves, with possibly only two breeding females, forming one pack. The authors report that in 40 years, the wolf count had never fallen that low.

Tracing the history of Isle Royale moose and wolves for much of the past century, the study points to human inter-

action in the form of the introduction of parvovirus and the impact of climate change, which has reduced the ice on Lake Superior, eliminating the only access wolves have to the island and increasing stressors for the moose population. Therefore, the authors argue that some type of intervention is warranted.

Vucetich and his co-authors address values including wilderness character, ecological health, science and education, and they find in each case that the argument for supporting the wolf population on Isle Royale, in one of several proposed formulae, outweighs the argument for nonintervention. Pointing to the character of Isle Royale as being enhanced by having wolves, the authors suggest a diminishing of the sense of place should the carnivores disappear. They assert that the health of an ecosystem, such as the wolves help to maintain on the island, should outweigh the concern for nonintervention and cite the value of the research conducted there as well as a survey of Michigan residents that shows they want the wolves rather than allowing them to vanish from the island.

Vucetich and his co-authors weigh where to draw the line, if intervening might open the door to other species, such as caribou, lynx and black bear. Both lynx and caribou inhabited Isle Royale within the past century. The authors urge a robust discussion of these

options, offering a framework for decision making: While introducing caribou might add equally to the character of the place, the ungulates would not offer the educational or scientific value that wolves do.

Using that same framework, these authors balance competing values, such as whether science is better served studying inbred populations, of which there have been many studies, or genetic rescue, of which there have been few. They address animal suffering induced when inbreeding results in potentially painful spinal deformities, noting that, “The unresolved relationship between conservation ethics and animal welfare ethics, in general, is evidence that this value should not be dismissed without consideration.”

Vucetich, Nelson and Peterson conclude, “Wilderness areas have been reduced ... and human impacts on those areas have become pervasive. Anthropogenic (human-caused) climate change and exotic species have altered the course of nature in nearly every protected area. Consequently, the principle of managing for naturalness is becoming less coherent, and the value of nonintervention as a means of preserving naturalness is becoming less useful.”

Responding in an article published in December 2013,² David Mech draws on 2013 data, showing that while the



Ann Moyo-Kiely

wolf population overall has been halved from the 2011 numbers, the number of breeding females had doubled by early 2013, and the young population seemed ripe for a comeback, making it “the latest in a long series of recoveries from perceived crises.”

Mech takes issue with the previous paper’s assertion that population declines were caused by humans. Tracking the population size over the years in question, he concludes that dips in wolf numbers were caused by strife within the packs—seven wolves killed by other wolves in one year—and malnutrition. Pointing to a variety of studies indicating parvovirus was not a cause of population diminishment, he concludes, “Lack of pup production and/or survival during those years would not be surprising in any wolf population.”

Mech points to larger moose populations elsewhere on the latitude at which Isle Royale is situated, disproving the assertion that warming temperatures are playing a role in smaller moose herds. While warmer climate could make ice on Lake Superior unlikely, reducing the chances of mainland wolves dispersing to the island and expanding the genetic pool, another factor of climate change is increased likelihood of extreme weather, which could cause lake icing and the

“This wealth of information about the most inbred, wild population of wolves ever is unique and invaluable not only to understanding basic wolf genetics and behavior but also to the entire field of conservation genetics.”

opportunity for wolf migration to the island.

Looking to the scientific advantages to be gained from various courses of action regarding the wolf population, Mech asserts one of the key research findings in the decades of studies at Isle Royale is how well a small population can maintain itself, in spite

of high levels of inbreeding. Arguing that skeletal abnormalities found in the Isle Royale population exist also in outbred wolves on the mainland, he notes, “This wealth of information about the most inbred, wild population of wolves ever is unique and invaluable not only to understanding basic wolf genetics and behavior but also to the entire field of conservation genetics.”

Discounting the third argument, that intervention is justified because of wolves’ roles in natural ecosystems, Mech sees the concern as premature, pointing out the island “still harbors a functioning wolf population that could well persist for many years with or without human intervention.” He concludes, “In the medical field, when a threatening condition is detected that is not immediately causing distress, physicians often counsel ‘watchful waiting.’ We have been watchfully waiting for (this) wolf population’s demise for almost 25 years. The precautionary principle

would weigh heavily in favor of nonintervention because once intervention is imposed, that condition can never be undone, whereas nonintervention can always be countered.”

Vucetich, Peterson and Nelson in a later article³ respond to writings by Cochrane⁴ who suggests the Isle Royale wolves are an invasive species whose demise should be celebrated. The authors rebut, “Such an attitude is deeply misanthropic. It would be stunning to think that NPS policy would favor an absence of wolf predation on Isle Royale on the wild speculation that they are an exotic species or blighted because humans have influenced them.”

In that article, they further address issues raised by Mech, noting lack of access to the findings that he asserts prove structural abnormalities are no more prevalent in inbred than outbred wolves. They cite studies supporting their view that Isle Royale wolves have high rates of inbreeding depression. (Adams, et al.)⁵

Vucetich, Peterson and Nelson further note that mapping the path of wolf extinction or recovery for scientific purposes would be like charting the decline of a patient in the last moments of life—of little use to understanding the whole issue. By comparison, they assert, relatively little is known about how to implement genetic rescue, a potentially valuable tool for conserving populations across the planet.

1. “Should Isle Royale Wolves be Reintroduced? A Case Study on Wilderness Management in a Changing World,” *The George Wright Forum* 29(1): 126–147, 2012. *The George Wright Forum* is a thrice-annual journal of the George Wright Society, which is comprised of professionals working in or on behalf of parks and protected places.

2. “The Case for Watchful Waiting with Isle Royale’s Wolf Population,” *The George Wright Forum* 30(3): 326–332, 2013.

3. “Discernment and precaution: a response to Cochrane (2013) and Mech (2013),” *The George Wright Forum* 30(3): 333–340, 2013.

4. “Island Complications: Should We Retain Wolves on Isle Royale?” *The George Wright Forum* 30(3): 313–325, 2013.

5. Adams, J.R., L.M. Vucetich, P.W. Hedrick, R.O. Peterson, and J.A. Vucetich. 2011. “Genomic sweep and potential genetic rescue during limiting environmental conditions in an isolated wolf population.” *Proceedings of the Royal Society, London B* (doi:10.1098/rspb.2011.0261).

“To say that considerable evidence exists for believing that inbreeding depression places Isle Royale wolves at great risk of extinction is not to say that we alone are impressed by the weight of evidence. We have also solicited the views of others with expertise in conservation genetics (e.g., L. Boitani, University of Rome; R. Frederickson, University of Montana; P. Hedrick, Arizona State University; R. Lacy, Chicago Zoological Society; O. Liberg, Swedish University of Agricultural Sciences; L. Waits, University of Idaho; R. Wayne, University of California Los Angeles). It also appears to be the collec-

tive judgment of experts in conservation genetics who are familiar with the Isle Royale case that inbreeding depression places Isle Royale wolves at considerable risk of extinction. In scientific discourse, when two sets of scholars (e.g., Mech, 2013; and us) disagree about the significance or interpretation of scientific evidence, the solicitation of expert opinion in a robust manner from a number of experts is an important basis for better understanding (Sutherland 2006; Martin, et al. 2012)”

Sutherland, W. J. “Predicting the ecological consequences of environmental change: a review of the methods.” 2006. *Journal of Applied Ecology* 43: 599–616

Martin, T.G., M.A. Burgman, F. Fidler, P.M. Kuhnert, S. Low-Choy, M. McBride, and K. Mengersen. 2012. “Eliciting Expert Knowledge in Conservation Science.” *Conservation Biology* 26: 29–38.

They quote naturalist Aldo Leopold, who said, “To keep every cog and wheel is the first precaution of intelligent tinkering,” and “A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise.” If an aspect of nature is valued, the authors conclude, it seems more appropriate to conserve it than to let it be lost with the hope that it can later be restored. For these reasons, genetic rescue appears to be the most appropriate response.

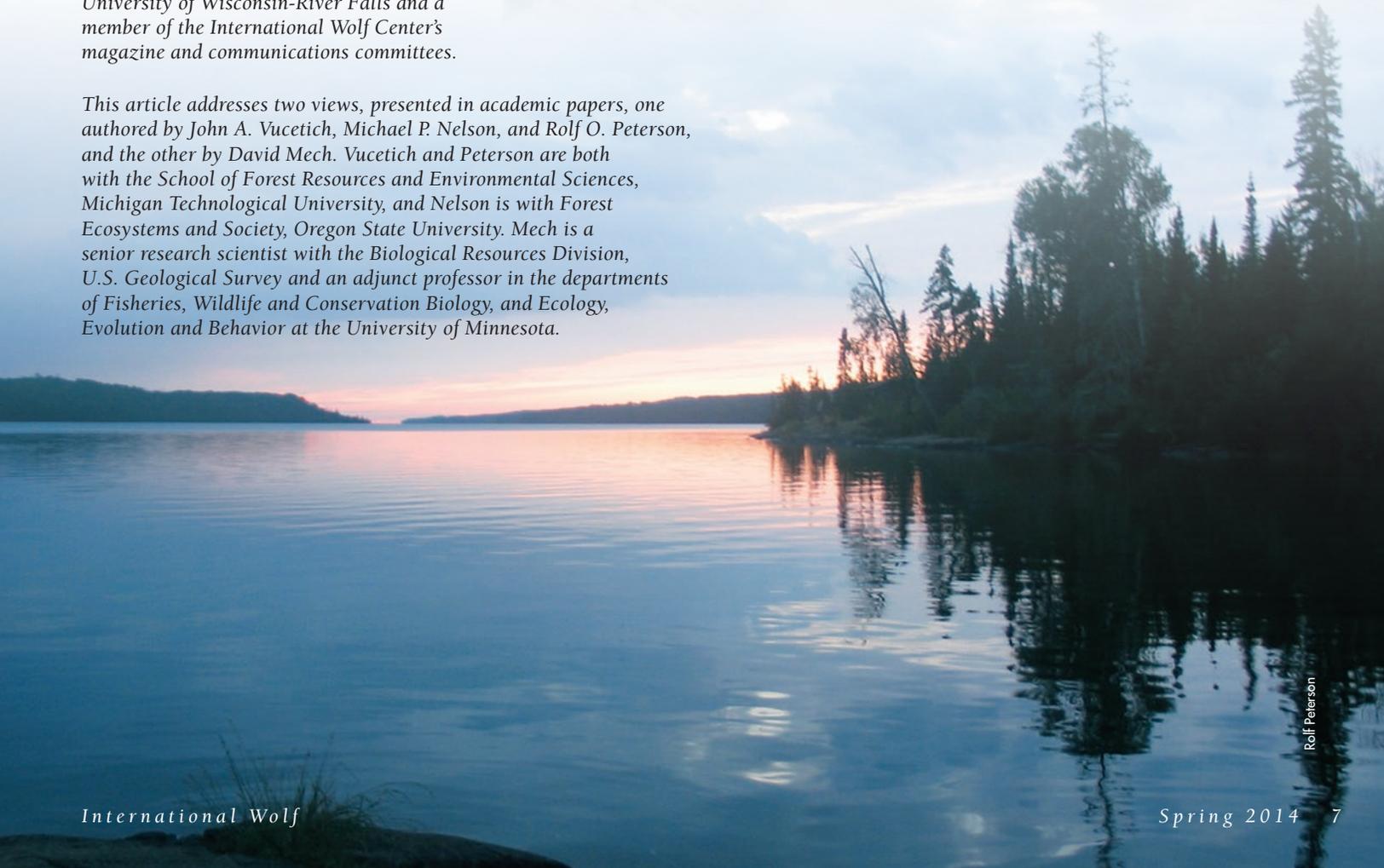
One can see in this discussion that there are no easy answers, and that views will differ in the world of research, no matter how experienced the participants to the discussion or how broadly they agree on basic principles. Whichever path is followed, these colleagues who have studied the Isle Royale wolf population for decades will continue to have a rich source of discovery. ■

Tracy O’Connell is an associate professor of marketing communications at the University of Wisconsin-River Falls and a member of the International Wolf Center’s magazine and communications committees.

This article addresses two views, presented in academic papers, one authored by John A. Vucetich, Michael P. Nelson, and Rolf O. Peterson, and the other by David Mech. Vucetich and Peterson are both with the School of Forest Resources and Environmental Sciences, Michigan Technological University, and Nelson is with Forest Ecosystems and Society, Oregon State University. Mech is a senior research scientist with the Biological Resources Division, U.S. Geological Survey and an adjunct professor in the departments of Fisheries, Wildlife and Conservation Biology, and Ecology, Evolution and Behavior at the University of Minnesota.



Rolf Peterson



Rolf Peterson

Brad McPhee

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Where Have All the Red Wolves Gone?

by CORNELIA HUTT

Editor's note: On January 7, 2014, a radio-collared red wolf was found dead southwest of Columbia in Tyrrell County, North Carolina. This was the first red wolf death of 2014.



iStockPhoto/Joe Potato

The familiar 1964 anti-war folk-song “Where Have All the Flowers Gone?” illustrates the idea that good times and bad times seem to occur in cycles. Reflected in Pete Seeger’s haunting melody and timeless lyrics are the red wolf’s slow drift to extinction and long struggle to regain a home in a portion of its historical range. Returned to the wild in 1987 following five generations of successful breeding in captivity, the red wolves have established a small but robust population in northeastern North Carolina. But the hard-won success of the recovery years is now threatened by the recent loss of significant numbers of wild red wolves. The guns of autumn 2013 have taken a devastating toll.

Six red wolves were illegally shot between the end of October and the third week in November. Not one of these wolf deaths was reported to law enforcement by the shooter with the legally acceptable excuse, “I thought it was a coyote when I pulled the trigger.” Additionally, tracking collars worn by some of the wolves had been cut off and discarded. Add that mortality figure to three other confirmed or suspected gunshot deaths since January 1, 2013, and the total is nine deaths for the year.

Nine may seem like a small number until it’s pointed out that nine red wolves represent nearly 10 percent of all wild red wolves living anywhere in the world. For the first time in several years, the free-roaming population is estimated to be fewer than 100. And the dead wolves were all of breeding age,



meaning a reduction in the number of adults to produce offspring.

Why the sudden alarming rise in gunshot mortality in the five-county red wolf recovery region? There is disagreement among the stakeholders, including both wolf advocates and wolf haters. Justified or not, hunters get a big share of

the blame, but the counterpoint to that accusation is that ethical hunters, who abide by established regulations and who value wildlife and habitat conservation, are among the first to condemn the deliberate killing of an endangered species.

A significant number of people have a more ominous theory regarding the spike in illegal gunshot mortality. They maintain that the fatal shootings of red wolves are no accident and not cases of careless misidentification. The wolves, they say, are being targeted.

This conclusion forces yet again an examination of humankind’s bias against predators, specifically canid predators. A particularly ugly hatred for wolves and coyotes runs deep in the United States. It doesn’t take an exhaustive search to discover Facebook pages devoted to the conviction that humans are justified in exterminating these so-called varmints, “pests” and nuisance species, often by the most savage methods imaginable.

Other proponents of systematically eliminating wolves and coyotes from the landscape cling to the belief that indiscriminate killing of canid predators (particularly coyotes) will “control” and reduce their numbers to an acceptable level, whatever that is. There are data that demonstrate otherwise, but open season on predators with no limits and



no kill reporting required is staunchly supported in many places including North Carolina.

Despite the Red Wolf Recovery Program's 26 years of management innovation, some vocal critics have seized upon the six recent illegal gunshot deaths as evidence of the program's failure and what they deem is now a waste of taxpayer money. That argument ignores the fact that 26 years ago, the number of wild red wolves was zero. Despite the killings, there are still perhaps 90 known wolves on the landscape. But the loss of six prime adults in three weeks is frightening, especially if red wolves are being selected as illegal targets by poachers.

Poaching, a serious offense, is the common name for crimes against wildlife. No one is sure how many game and non-game animals are illegally killed each year. But estimates indicate that poachers rob legitimate sportsmen and women of fish and game, taxpayers of hunting and fishing revenue and future generations of a priceless resource—our national wildlife. Killing an endangered species carries a stiff penalty, and the red wolf shooters, whoever they are, have a \$26,000 price on their heads, the amount

being offered for information directly leading to the arrest and prosecution of the people or person responsible.

Who are the poachers? Contrary to myth, they are not desperate people trying to feed their families. Some kill for profit, some for fun and thrills (the most graphic and violent Facebook pages



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confirm this) and some are opportunists who kill animals any time they can get away with it. And get away with it they do. Law enforcement officers can't be everywhere in the red wolf recovery region, for example. It's a vast rural area

with three national wildlife refuges and large tracts of private land laced with meandering waterways and stitched together by a labyrinth of back roads. Local residents aren't often willing

to report suspected offenders despite the hefty reward.

The final line of the song "Where Have All the Flowers Gone?" is the old lament: "When will they ever learn?" Given the present grim statistics from red wolf country, it's hard not to respond with the pessimistic answer, "Probably never." But the questions for us have to be: Will we ever learn to accommodate predators? Will we ever learn to allow them living space among us in a crowded world? Do we care enough to increase law enforcement surveillance and make it easier to catch and prosecute lawbreakers who commit crimes against wildlife—including the endangered species that belong to all Americans? Endangered means it's not too late to save imperiled species—unless people are apathetic about the illegal killing of these animals.

The Red Wolf Recovery Program continues to push forward despite years of challenges and setbacks. The wolves themselves are also resilient and tenacious. They have survived in spite of ferocious persecution, functional extinction in the wild, a reputation classifying them as some sort of hybrid mutt and little widespread public attention until fairly recently. They can make it if given a chance.

Will we continue to provide them the help they need? And will our collective voice and effort be enough? We have to stop the bleeding in red wolf country before it's too late to save

this southeastern native and before the song of the South, the howl of the red wolf, is silenced forever in the wild. ■

Cornelia Hutt is chair of the Red Wolf Coalition (redwolves.com) board of directors. She is a former member of the International Wolf Center board and a member of the International Wolf magazine work team.



A red wolf cuts across a farm field adjacent to a wildlife refuge.



Both photos: US Fish and Wildlife Service



Take Only Photos, Leave Only Footprints... Safely

Text and photos by ELKE DUERR

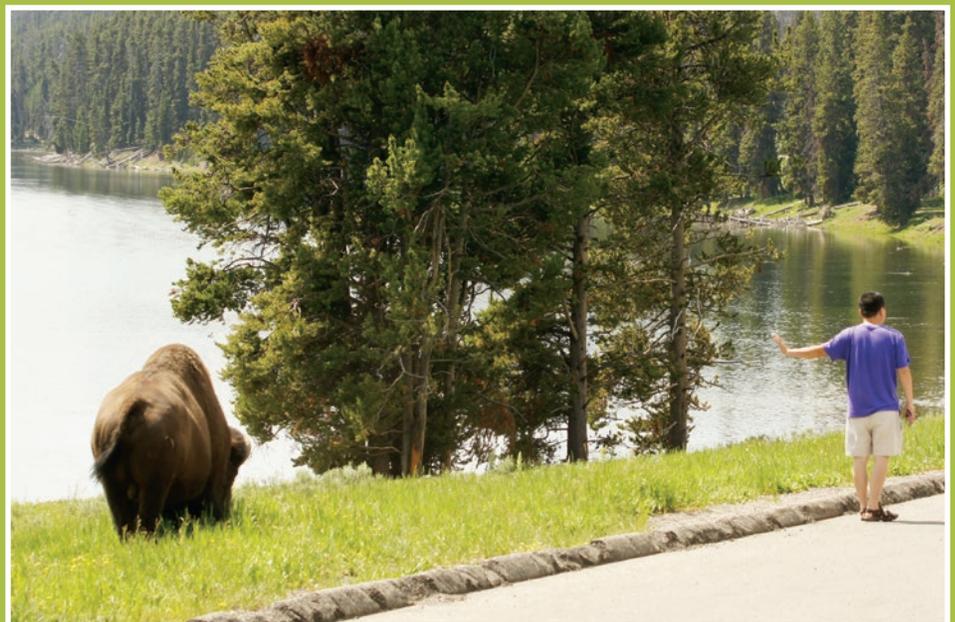
It is a privilege to watch and photograph wildlife in its natural habitat. Nowadays, with nearly everyone in the wild armed with a camera, whether it's a camera phone or professional photography and videography equipment, new questions have come up: What kind of conduct is ethical when it comes to wildlife photography, and what endangers the safety and wellbeing of photographer, wild animal and wildland?

Many of us are not aware of our natural sense of safe distance from and conduct toward wild animals. Some people view wild animals as part of the landscape, there for our enjoyment. More and more people are starting to believe the concept of "personhood" should be applied to animals. Some form family units similar to human families, often building strong, lifelong bonds with one another. They have roles to fulfill within their family structure, no matter what that structure might be, and in general are part of a picture larger than many humans can comprehend. Enjoying wild

animals is well and good as long as they and humans involved are not harmed in the process. We have all heard about tourists who urge their children to inch ever closer to a bear, wolf, elk or bison for a "once-in-a-lifetime" photo op.

In fact, I frequently witnessed this kind of behavior when I was visiting Yellowstone National Park last summer. One day an old bison bull was grazing alongside a turn-off in the road when a family stopped to take pictures of their son almost touching the large animal. I was horrified and tried, to no avail, to get them back into their car and to stop teasing and daring the young man to move ever closer to the bull.

Meanwhile, the bull's tail was moving into "charge" position; it was held aloft, which can only mean that either charge or "discharge" was about to happen. Since he was at that point, eyeing the people, it most likely meant that he was seriously considering charging. Luckily, the family retreated after taking enough pictures and drove away in the nick of time.



Viewing a bison from a not-so-safe distance.

This might be the extreme case. But it frequently happens that humans mistake seemingly passive animals as safe to approach. These animals might be ready to charge because they feel crowded. We demand space between ourselves and our fellow human beings. With wild animals, that space needs to be much larger.

After all, we are in their habitat when we are looking for opportunities to photograph wildlife. Throughout the world their habitat has been reduced to a sliver of its former size. While we can go anywhere in this world, from cafes to malls to running on a track or driving on a highway, animals are often confined to small areas where the pressure from encroaching humans adds more stress to their lives than they were formerly accustomed to. They need areas to which they can retreat and regroup, where they feel safe to be themselves and do what they came here to do, namely fulfill their role in the ecosystem, undisturbed.

It is best to observe wildlife from a distance and never follow an animal or approach it too closely.

I recommend viewing and photographing from observation areas and trails and using a telephoto lens, spotting scope or binoculars. Following wild animals or blocking their line of travel or their escape route is extremely dangerous—even when it is tempting to get a photo from close up. Direct eye contact is often a sign of aggression to an animal, which is what it experiences when we are watching it through a lens. The same goes for walking directly toward a wild animal, even if it seems to not care about our presence.

It is of utmost importance to remain at a distance from nesting birds, denning animals and newborn animals. Wild animal parents, just like humans, are very protective of their offspring and instinctively shield their young from creatures that in their eyes might be dangerous.

This is usually not the case with wolves. Wolf mothers have been known to leave a den with pups when a human enters it rather than attack and drive the intruder out. Nevertheless, in our quest to take a picture or get closer to

the pups, we harm them. These types of close encounters with humans are very stressful for animals not accustomed to having humans at close range. Crowding or encircling wildlife causes unnecessary stress to their system, as does following an animal that has chosen to leave.

There are other things that we do, often quite innocently, that cause harm to wildlife. Somebody recently told me about a young disperser wolf routinely fed by well-meaning humans who wanted to make sure he got enough to eat but who also wanted to be close to a wolf to take pictures of it.

Feeding wild animals for whatever reason could keep them from eating the food that nature intended for them to eat. It can also cause animal concentrations, which could make them much more susceptible to disease and parasites and cause conditions such as tooth decay, gum infections and ulcers that occur when they eat food they are not accustomed to and which contains ingredients that are harmful to them. It also, of course, habituates them to us, which often results in their being killed by humans for frequenting and defending their new food source. Feeding wild animals along roadsides can result in their being injured or killed by cars or chased by dogs.

Always bear in mind that some places lend themselves to wildlife photography more than others. Spending a few days in Yellowstone National Park where hunting is not allowed almost guarantees you will see bears, wolves and other large animals. In other places, where the pressures of hunting requires animals to protect themselves by being concealed, you might get the wilderness experience of camping without seeing any wild animals.

I invite us all to look at our impact on wildlife. If we seek experiences with animals in nature, acquiring good, far-reaching photo equipment is key. In the words of one of the Web of Life Foundation volunteers, "I am so excited about my new telephoto lens. Now I can stay away from the animals and still photograph them when the opportunity arises without doing harm."

The same holds true for habitat. Without it wildlife would not be able to exist. We must treat the natural world with care, walk lightly on the land and leave the area looking natural and undisturbed. Often this can be accomplished by simply staying on established roads and trails. After all we are not just a visitor or intruder but another member of the ecosystem, the web of life.

By heeding these pointers we can combine our love for wildlife photography with our care for wildlife and wildlands and make sure that the animals and natural environment thrive.

We can also share our photos with one another. That way we can all be part of this wonderful adventure called wilderness and create the personal connections to it that will help us protect our wild places and animals for all the generations to come. ■

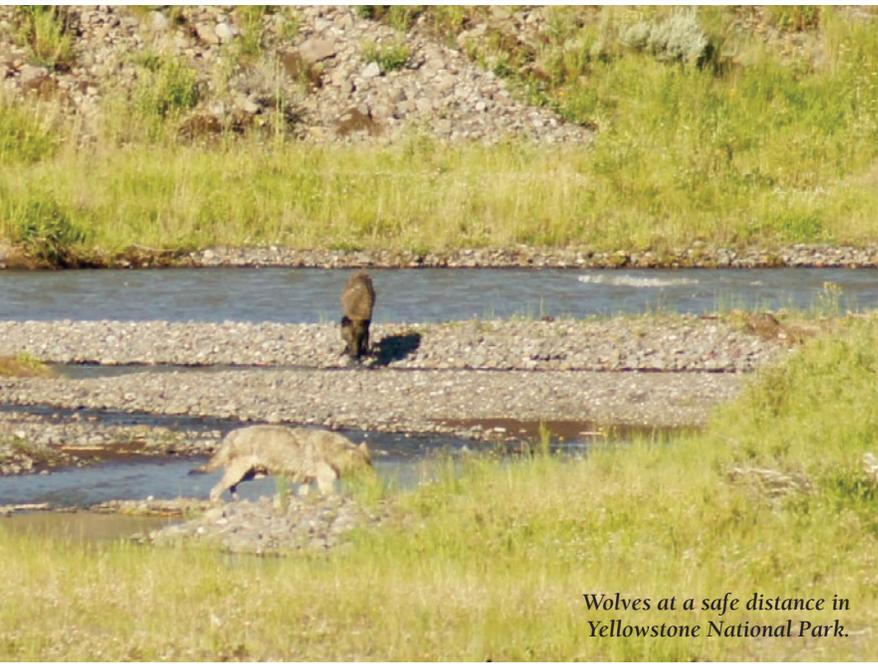


Following are some examples of wildlife photography free for your enjoyment:

-  <http://wildwolffilm.com/Photos.html>
-  <http://www.izilwane.org/photos.html>
-  http://weboflifefoundationn.fatcow.com/Web_Of_Life_Foundation/Photos.html
-  <http://www.arkive.org/grey-wolf/canis-lupus/image-G58556.html>

Source: Wyoming Game and Fish Department, educational section

Elke Duerr, an educator, filmmaker and photographer, founded the Web of Life Foundation, which is dedicated to a healthy coexistence between wilderness and civilization, the reconnection of humans to the natural world and the recovery of endangered plant and animal species.



Wolves at a safe distance in Yellowstone National Park.

“If we want to preserve our precious wildlife and wildland resources, we must all learn to follow basic guidelines when we view and photograph wildlife.”

—General H. Norman Schwarzkopf,
U.S. Army retired



Wolf watchers in Yellowstone.



Yeer.com/Wirepec

Betsy Downey

The Grand Bargain:



Betsy Downey



Betsy Downey

In the Fall 2013 issue of *International Wolf*, Mike Jimenez and Steve Grooms describe the “grand bargain,” the deal on which wolf reintroduction in the Northern Rockies was based. They emphasize predator control policies, which ranchers were promised, and criticize wolf advocates who break the bargain by opposing control actions. We respect both authors but want to address two issues they did not discuss: anti-wolf opposition to the “grand bargain” and the need to revise the bargain to protect Yellowstone National Park wolves. We believe the bargain is not as grand as they portray it. Advocates and opponents got some of what they wanted, but they also got some things they didn’t want. Advocates didn’t want delisting and state management, and opponents didn’t want wolves. This continues to cause conflicts.

Attitudes toward wolves cover a wide spectrum, and vocal minorities on both ends often use social media irresponsibly. Jimenez and Grooms criticize the end of the spectrum that Jimenez calls “an urban public” for having “sympathy for wolves but little empathy for livestock producers” and for being “utterly opposed to killing wolves for any reason.” We know some of these advocates and consider them an unrepresentative minority. However, we think the rhetoric, behavior and influence of wolf haters on the other end of the spectrum are more serious violations of the bargain and more dangerous to wolves.



Time for Revision

by BETSY DOWNEY
and BOB LANDIS

In 1995, before the wolves were on the ground in Yellowstone National Park, anti-wolf groups began breaking the grand bargain with lawsuits to remove the wolves. They have been an effective lobbying influence on agencies and policies ever since. They got Montana’s legislature to reject a “no wolf hunting unit” bordering Yellowstone National Park. They got wolves in about 85 percent of Wyoming classified as predators that could be shot on sight. They sport bumper stickers that say, “Smoke a pack a day” and “Shoot, shovel and shut up.” Some boast on Facebook of targeting famous Yellowstone wolves and of patriotism and sexual pleasure in killing wolves. The scolding of extremes must go both ways, with critics condemning all destructive behavior and working toward a better bargain.

The “grand bargain” was not written in stone; it was designed to be flexible, protecting wolves as well as livestock and humans. In 1994 we could not know how rapidly wolf populations would grow, how much scientific research and knowledge would center on wolves or how much wolves would contribute to Yellowstone’s visitor count and local economies. We also could not know how strong and powerful continued opposition to wolves would be in shaping policies.

Unlike the advocates Jimenez and Grooms criticize, we—and most wolf supporters we know—believe that when wolves prey on or threaten humans and livestock, control action, even lethal, is justified. But we believe livestock producers must take reasonable measures to protect their stock, particularly on public grazing lands. Agencies and individuals must effectively oppose fraudulent predation claims and the illegal taking of wolves.

We are not hunters, but we accept hunting as long as policies protect the continued existence of wolf populations, particularly those in Yellowstone National Park. We expect hunters to practice ethical hunting, obey regulations and respect the animals they hunt. We believe trapping is inhumane and should be prohibited, especially near the park.

We don’t reject the grand bargain, but we urge revising it to ensure a healthy wolf population in Yellowstone. Most wolf populations in the Northern Rockies appear robust today. The population of Yellowstone wolves is a concern, however. It has dropped significantly, especially on the northern range, due to declining prey population, inter-pack conflict and stress and disease, as well as “human caused mortality,” resulting primarily from control actions and hunting. The park’s wolf population peaked in 2003 with about 174 animals. In fall 2013 about 94 wolves remained. On the northern range, where wolves traditionally are most visible, numbers have declined by 58 percent—from more than 90 in 2003 to 38 in late 2013.

Since wolf hunting began in 2009 in Montana and Idaho, and later in Wyoming, over a dozen wolves

from Yellowstone packs have been “harvested,” with negative impacts on Yellowstone’s wolf numbers, pack structures and dynamics, scientific studies and visitor experiences. In 2009 the Cottonwood pack disintegrated after the killing of its breeding wolves. In 2012 hunters killed 12 Yellowstone wolves. Many were high-ranking members of their packs. Although Idaho and Montana discourage taking collared wolves, six collared Yellowstone wolves were killed in the 2012 hunt. The Lamar Canyon pack lost its breeding female—the famous 06—and its second-ranking male; the pack may not survive. Only a few wolves from the Lamar pack remain in Yellowstone National Park. The others

were likely among the five taken in the fall 2013 hunt outside the park in Wyoming.

Ensuring a healthy wolf population in Yellowstone National Park was, and must remain, an essential part of the “grand bargain.” Yellowstone’s wolves need increased protection to ensure continued contributions to the park’s ecosystem as well as genetic diversity and to recruit support for the park. Yellowstone is an important national resource with a rare and intact ecosystem, thanks to the restoration of its top predator. Yellowstone’s wolves play a vital role in maintaining the park’s natural habitat. Threats to the wolves endanger a fragile ecosystem continuously under attack by changing human and environmental influences. Their population helps assess the impact of humans on the health of the whole planet.

As Dr. L. David Mech wrote in *International Wolf* Spring 2013, Yellowstone is “a unique laboratory for watching, filming and analyzing wolf behavior.” The visibility and longevity of individual wolves and packs are important tools for scientists, writers and filmmakers who conduct long-term studies, tell stories and support education and interest in wolves and the park. Mech further states that field observation, collars and DNA studies provide “unprecedented detail of



Betsy Downey



Betsy Downey

Yellowstone National Park visitors watching for the Lamar pack.



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Yellowstone National Park entrance near Gardiner, Montana.

aspects of wolf behavior,” in relation to prey-predator relations, genealogy, the behavior of related wolves and the effects of pack size and individual age of pack members. But with declining wolf numbers that visibility is at risk. A decade ago we saw many wolves every day (Betsy’s record is 55 in one day). Now on many days we see no wolves.

The harvest of wolves near the park has hurt these scientific studies, particularly studies of disease ecology and the impact and transmission of mange, brucellosis and chronic wasting diseases. It has made it difficult for dispersers to leave the park safely to find mates and assure genetic diversity. Disruption of packs has hurt the study of wolf behavior and social dynamics. Removal of collared wolves has affected the understanding of prey-predator behavior and patterns and is detrimental to ranchers who could be warned of wolves wandering near livestock outside the park.

Declining numbers and visibility of wolves have negative implications for the park and the gateway communities of West Yellowstone and Gardiner, Montana, and Jackson, Wyoming. Studies show that “charismatic carnivores” are drawing cards for visitors on whose continued support the park depends.

Since 1995, the numbers of photographers, individuals, businesses, and educational programs offering wildlife/wolf-watching tours have boomed. In the Jackson area alone, at least 25 businesses and organizations offer wildlife tours, and wolf sightings are an important attraction. Yellowstone superintendent Dan

Wenk recently noted that the park’s ecosystem has a larger economy than many urban areas. Recent studies indicate that around 50 percent of park visitors specifically want to see wolves and spend over \$35 million a year in the Yellowstone area. Protection of wolves is a matter of economic self-interest for many who live nearby because it assures jobs and business revenue. State wildlife managers must include this economic value among the variables they consider when establishing hunt quotas.

We believe it is time to create a new “grand bargain” based on present realities. An interagency wolf organization is needed to make protective policies for Yellowstone’s wolves. Membership should include fish and wildlife representatives from the states bordering Yellowstone National Park and representatives from Yellowstone’s administration and wolf project. This group should define a threshold below which the Yellowstone wolf population could not drop, close an area around the park’s borders to wolf hunting and trapping, ban taking collared wolves and create units beyond the closed areas with low wolf quotas that could be lowered or closed quickly in response to sudden drops in Yellowstone’s wolf population. A precedent similar to the no-hunt zone exists in the drilling buffer around the park, which was created to preserve its thermal features. Advocacy groups should create a joint task force whose only agenda is lobbying for these changes.

As Jimenez points out, assuring the continuance of healthy populations of wolves in the western United States requires “public tolerance of wolves, particularly from those living close to wolf populations.” Irresponsible extremes obscure broad areas of agreement and distract people from urgent needs. The vast majority of people involved in conflicts over wolves in the Northern Rockies share the core values of the American West. They may differ in their views regarding predatory carnivores, but they all cherish and want to protect the heritage and culture of the West’s wild places—their unique beauty and character, their wildlife, their place in America’s past, their importance for the future.

We believe a new grand bargain based on mutual respect and partnership can protect Yellowstone’s wolves and embody these values. We also agree with former Yellowstone National Park Superintendent Mike Finley when he said: “Some of our population can’t be enlightened. In that case, you need to be a defender.” ■

Betsy Downey teaches history at Gonzaga University. She has written on Yellowstone wolf history for several of Bob Landis’ projects and wrote of her experiences with wolves in the Spring 2005 and 2006 issues of International Wolf. Bob Landis is an Emmy Award-winning wildlife cinematographer who has been filming wildlife in Yellowstone for the past 40 years.



A Study of Phenology and Behavioral Patterns of Wolves

by Lori Schmidt, Wolf Curator, International Wolf Center

Phenology is defined as the study of plant and animal events influenced by the seasons and variations in climate. Observers have the opportunity to track the changes of the seasons and their influence on wolves, even those in a captive environment.

Previous articles have documented the hormonal changes that occur in fall. Dominance interactions among wolves increase into winter and seem to peak by the late-February breeding season. In the winter of 2013-14, Luna and Boltz neared maturity and looked for opportunities to show status, which provided added stimulus for the pack.

However, as soils warm and the days increase in length, the behavioral patterns of wolves begin to change. While a 50° F (10° C) spring day might spur people to zip up their windbreakers, the wolves, still in their winter coats, can

find the temperatures too hot for activity. Wolves have a dense undercoat for warmth and long guard hairs to repel water. The animal's northern location favored the evolutionary development of thick fur rather than sweat glands on the skin. With no sweat glands to help regulate excessive heat, wolves adapt through modifying behavior.

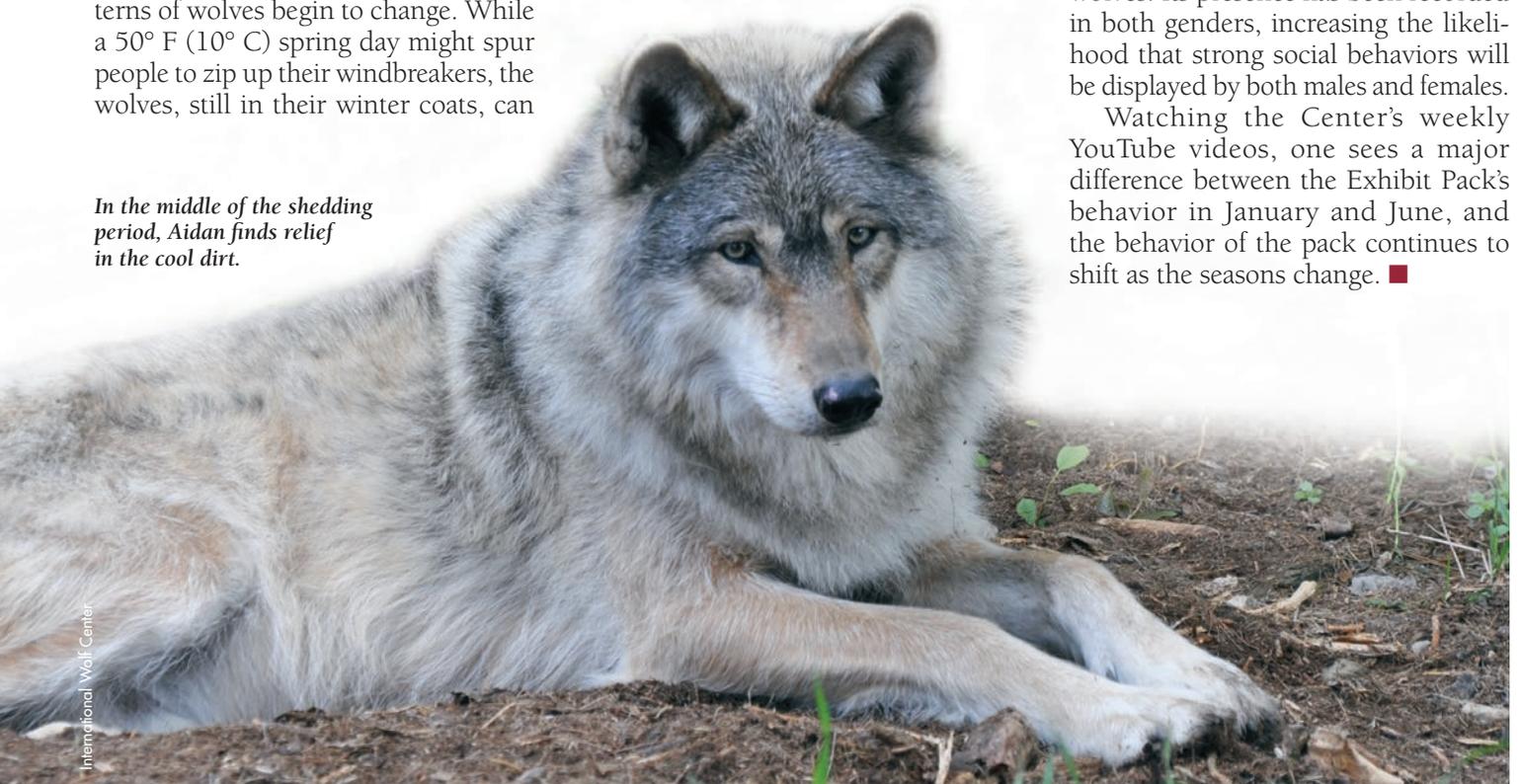
As spring advances, frost leaves the ground in open habitat but often remains in dense conifer forests. Luna, having a darker coat than her packmates, tends to absorb radiant heat and often seeks cover under trees on partially frozen ground. If days are above 70° F (21° C), staff might need to look underground to glimpse

the ambassador wolves. Fortunately, the wolves have a shedding pattern that eliminates their undercoat in a relatively short time. Contrary to dogs that can shed throughout the year, a wolf typically sheds its undercoat in a few weeks. By June, the wolves' long guard hairs lie flat, making the animals appear significantly thinner than when they were in their winter coats.

Behavioral patterns transition from diurnal, active in the daytime, to crepuscular, active at dawn and dusk. As the season progresses, nocturnal behavior becomes the norm. Another behavioral influence observed in the spring is the tendency for the wolves to increase their tolerances and engage in more social behavior. This behavior is likely stimulated by the seasonal presence of prolactin, a nurturing hormone generally associated with pups. Prolactin is produced in the pituitary gland and is present even in spayed and neutered wolves. Its presence has been recorded in both genders, increasing the likelihood that strong social behaviors will be displayed by both males and females.

Watching the Center's weekly YouTube videos, one sees a major difference between the Exhibit Pack's behavior in January and June, and the behavior of the pack continues to shift as the seasons change. ■

In the middle of the shedding period, Aidan finds relief in the cool dirt.





Sitting in the brush, Luna seeks comfort from the heat and bugs.

International Wolf Center



Aidan demonstrates the crepuscular pattern of wolves, active at dawn and dusk but not in the middle of the day.

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Wolves of the World

Experts From around the World Report on Wolves

By Tracy O'Connell

The International Wolf Center symposium held in Duluth, Minnesota, last fall brought together experts from around the world to present research on wolves in their areas of expertise. Some of the reports updated attendees on topics seen in previous issues of *International Wolf*.

WORKING FOR ACCEPTANCE



For instance, a presentation by Narumi Nambu, a member of the Japan Wolf Association, addressed a proposed reintroduction of wolves to Japan to control damage caused by overpopulations of

wild deer. The Japan Wolf Association has conducted surveys every 3 years for the past 20 years to track public attitudes toward wolves. Recent findings indicate that only 10 percent of survey respondents held “unfavorable” attitudes, while 40 percent each had “favorable” or “no” opinions.

Also monitoring human attitudes toward wolves, marketing consultant Volker Beckmann has worked to turn his adopted home of Thompson, a community of 13,000 in northern Manitoba, Canada, into one of the world’s most wolf-friendly communities. Beckmann is a volunteer project coordinator for

Spirit Way, a community organization that has raised nearly \$1 million for various pro-wolf initiatives, ranging from art installations to research, education and outreach. More details on these initiatives can be found at www.thomsonspiritway.ca.

THE STATUS OF WOLVES IN CANADA



Elsewhere in central and western Canada, predator-prey relationships have been widely studied. Dr. Ludwig Carbyn, the University of Alberta, has studied wolves’ impact on the size of bison herds and bovine diseases found in Wood Buffalo National Park.

In the boreal forest of northern Alberta, where heavy resource extraction is affecting the lives of the threatened woodland caribou and the wolves



Edwin Winkel



Nancy Gibson



International Wolf Center staff



that prey on them (Summer 2012 *International Wolf*), Philip DeWitt, a research ecologist with Matrix Solutions, studied how predator and prey differed in their approach to the packed snow caused by oil extraction equipment, suggesting that managing the distribution of packed snow could provide refuge for prey in winter.

Dr. John Benson, Alaska Fish and Game, used GPS and telemetry science to study the interaction among eastern and gray wolves, coyotes and hybrids in Ontario's Algonquin Provincial Park, finding it likely that eastern wolves would join coyote or hybrid packs, limiting their genetically distinct population. Benson assisted Dr. Brent Patterson, Ontario Ministry of Natural Resources, in a study on the dispersal of young eastern wolves in Algonquin Provincial

Park, finding poor survival of eastern wolves outside protected areas.

Tyler Wheeldon, Trent University, examined a sample of the bodies of wolves and coyotes harvested in a portion of northern Ontario and determined that they were genetically and morphologically distinguishable with little signs of hybridization taking place in the study area.

Taking a nationwide view, Dean Cluff, Environment and Natural Resources in Yellowknife, Northwest Territories, led a recent multi-part assessment of wolves in Canada, finding that the canids here as elsewhere elicit strong and polarizing views from people, affected in part by rural versus urban settings. Wolves in the boreal and tundra eco-regions are relatively abundant, but insufficient data preclude study of wolves in the High

Arctic. They are strictly protected in only 3 percent of their range with regulations elsewhere varying widely. Livestock depredation is a problem in the western provinces, as is concern with the impact on wild ungulate populations, but the number of wolves removed in response to livestock complaints has declined.

MEANWHILE IN MEXICO...



While the Mexican wolf reintroduction is often viewed from the efforts taking place in the American Southwest, three presentations addressed Mexican concerns about establishing populations south of the shared border. Dr. Miguel Armella, Autonomous Metropolitan University in Mexico City, authored an article on the subject in Winter 2011 *International Wolf*, and updated those at the symposium about his efforts to strengthen environmental education among the young, instilling in them an appreciation for the role of the Mexican wolf.

Jorge Servin, also from the Autonomous Metropolitan University, studied views and experiences with wolves in three remote areas of Mexico where Mexican wolves were slated for release. He found that factors involved in acceptance or rejection of wolf reintroduction were influenced by age, education and economic activities. He identified that training and education of rural people can contribute to a change in attitude toward wolves, benefiting their recovery. He also found that wolves should be kept in the mountains with enough wild prey to avoid attacks on livestock and potential conflicts with farmers and local communities.

Dr. Carlos A. González Lopez, Autonomous University of Querétaro, led a team that studied prey populations in northwestern Chihuahua. He reported that poor livestock husbandry practices in the region combined with the threat of poisoning did not bode well for the survival of the wolves released there.



Mexican Wolf Interagency Field Team

WOLVES WITHOUT WILDERNESS



In much of the world wolves have room to roam, but that of course is not universally true. Dr. Juan Carlos Blanco, who coordinated the first wolf survey in Spain, reported on how wolves in Spain adapt in a setting without prey. He noted that livestock dying of natural causes, left by shepherds in the fields, were a major food source for wolves in Spain. Extrapolating his results to other areas of the world where large ungulates have been depleted, such as South and Central Asia, Blanco notes that livestock-husbandry methods play a large part in human tolerance for wolves.

ALSO IN THE REGION...



Vincente Palacios, a wildlife research biologist at the University of Valencia, Spain, studied Iberian wolf howls. Playback experiments demonstrate that wolves discriminate changes in the acoustic parameters of howls and confirm that wolves are capable of recognizing individuals by the acoustic structure of their howls. Results suggest that wolves could obtain information about individual identity, presence of pups and pack size from howls, and the analysis of howl recordings could prove to be a useful tool to collect information about ecological parameters essential for wolf conservation and management, such as distribution, abundance and reproductive success.

TURKEY AND ARMENIA, STUDIES OF WOLF-HUMAN INTERACTIONS



Dr. Hüseyin Ambarlı, Middle East Technical University, studied Turkish media reports on wolves over a period of nine years to determine the types of interactions and the attitudes they generated. He determined, in addition to livestock predation, that there were 8 human deaths and 46 injuries, some severe, with about 27 percent caused by rabid wolves.

In Armenia, Serda Ozbenian, executive director of the Armenian Environmental Network, surveyed 23 communities in four regions about their experiences with human-wolf conflict. Many villages reported increased conflicts in recent years and a need for support. Ozbenian asks, "How can we transform the current situation from constant conflict to peaceful coexistence and stewardship?"

EXAMINING THE EFFECT OF BORDERS



Yaffa Epstein, an attorney pursuing a doctorate in environmental law at Uppsala University in Sweden, is looking at the effect of legal borders in protecting large carnivores with ranges that extend over large tracts of land. She notes that it is interesting to look at wolf management in northern Europe. Sweden and Norway share a wolf population, while the related Karelian wolf population extends over Finland and part of western Russia. Each country regulates wolf management under different international agreements. Sweden is bound by the Bern Convention and Habitats Directive. Finland has no obligation to protect the wolf under the Bern Convention and only partial obligation under the Habitats Directive. Norway, which is not a member of the European Union, is only bound by the Bern Convention. Russia is not a party to either agreement. The conclusions drawn about trans-border cooperation will be of relevance in the United States, she notes, where management responsibility for most wolf populations has recently devolved to the states after decades of coordinated federal regulation.

WILL WOLF RECOVERY PLANS WORK FOR DINGOES?



Thomas Newsome, an Australian Fulbright postdoctoral student, explored whether the effort to reintroduce wolves in Yellowstone National Park and other sites where they had been locally extinct would work in other areas, such as reintroducing the dingo to portions of

Australia. Examining the evidence for and against such an effort, he provided an overview of the scientific basis for the controversial proposal.

INDIA'S THREE WOLF TYPES



Dr. Yadvendradev Jhala, Wildlife Institute of India, reported on two of the three distinct genetic lineages existing in India. The Himalayan wolf, ancient and endemic, inhabits high altitude valleys across Himachal Pradesh, Nepal, Tibet and Sikkim and subsists primarily on blue sheep, Kiang foals, rodents and livestock. Himalayan wolf habitats, mapped using presence data in MAXENT, are patchy. Wolf densities within these are low, and persecution is high; therefore, the status of these wolves is precarious.

The peninsular wolf occurs in 13 Indian states and Pakistan. Countrywide wildlife surveys conducted in 2010 estimate 1,200 to 1,800 packs in India. Peninsular wolves prefer scrub-grassland habitats to thick forests, which are often occupied by dhole, and subsist primarily on blackbuck, gazelle, nilgai calves, hare and livestock. Canine distemper and rabies often wipe out entire packs.

Satish Kumar, Aligarh Muslim University, studied the third type, the Indian wolf in the state of Uttar Pradesh, where it has been in conflict with humans since 1996 and during the 19th century. While the wolf population is unknown here, conflicts have grown alarmingly and include deaths and injuries to several children under the age of 10. The natural prey base is extremely low, and wolves survive primarily on livestock and by scavenging. About 100 wolves still survive in a few districts in Uttar Pradesh, and Kumar noted that it is challenging to conserve and manage this lesser-known wolf population due to the rise in wolf-human conflicts. ■

Tracy O'Connell is an associate professor of marketing communications at the University of Wisconsin-River Falls and a member the International Wolf Center's magazine and communications committees.

With great surprise I realized what I was looking at; six sets of eyes were staring at me from 100 feet away. And then, I heard a muffled half-bark followed by a deep, smooth, heavy sound rising into the air. None of the other wolves

Personal Encounter

Predator Diplomacy

Text and photos by Chris Crowe

Last September, I was lucky enough to observe an amazing encounter between wolves and grizzly bears in Yellowstone National Park. Wide awake with anticipation, I arrived in Yellowstone's Lamar Valley before dawn to join a crowd on the steep slope below Druid Peak. We squinted into the darkness beyond the "confluence," where the Lamar River and Soda Butte Creek meet, to the spot where a male grizzly bear had stood atop a bison carcass the prior evening.

The sunrise revealed a spectacular scene. Five grizzly bears and five gray wolves were all at the carcass. The male grizzly fed in earnest while a grizzly sow with three cubs of the year sat to the side, and five wolves from the Junction Butte pack surrounded the carcass. I counted 29 ravens and 12 magpies present as well. Three or four ravens at a time were hopping to and from the carcass. I was amazed at how calm the scene was and a bit worried about the safety of the bear cubs.

Two gray wolves were lying down behind the carcass, and a black wolf was sprawled out to the side. The other two wolves were chasing each other back and forth. One laid its head on the other's shoulder as both wagged their tails high. One briefly mounted the other as it squirmed until breaking free. The wolf that broke free then tried to mount its companion but did so by putting its front legs on the other's shoulders or side.

Then one of the resting wolves got up and circled the carcass, placing itself right between the feeding boar and the now-approaching sow. The wolf faced the sow, raised the fur on its hackles, lowered its head and bared its teeth. The female



bear responded in kind and stomped the ground with her front paws. The black wolf rose and stared at the sow, ready to defend its packmate. The birds scattered, and it appeared tensions were about to erupt. I imagined the bear battering the wolves with her massive paws and sharp claws or the wolves distracting her to kill a vulnerable cub. But then the wolf and the sow both turned and walked away at the exact same time.

Another wolf began feeding on the bison's face. The feeding boar didn't react at all. Then three wolves began feeding. The boar still kept eating but shifted to face the wolves by keeping his front paws on the bison while shuffling his back end around. Three wolves and a grizzly were feeding from the same carcass at the same time!

The growing crowds of people were not the only creatures watching. A pronghorn buck paused in the background to stare at the impressive gathering of

predators. Farther back, a sixth grizzly, a large male, came in from a line of cottonwood trees but then retreated. Far to the right, two coyotes briefly appeared before quickly, and wisely, sprinting away in the direction from which they came.

The wolves stepped away from the carcass and lay down to rest. The sow intently strode toward the carcass with her head held low and her cubs lined up in a row behind her. The birds flew off, the wolves rose to their feet, and the boar ran away. The sow ascended the bison, and her family immediately began feeding. The male grizzly headed toward the river, and the wolves eventually walked away in single file, disappearing over a rise in the sagebrush.

Alone at last, the sow could relax. I could only imagine her relief. She lay down on the bison with her head resting on her folded forelegs while her cubs continued to feed. They had the bison to themselves for most of the day until

the male grizzly returned in the evening and peacefully retook the carcass. The sow and her cubs headed toward the river for a drink.

The male grizzly did not have the carcass to himself for long. The ravens returned to feed and linger alongside him. The wolves reappeared from the sagebrush, and the grizzly family returned from the river. The boar reacted to their return by stomping in vain at the ravens that simply flew out of reach and then bounced right back. As a wolf approached to the right, the boar lunged a few feet toward it. The wolf arched its back and lowered its head as a second wolf pulled a long thin bone away from behind the grizzly. As the sun set, the sow and cubs fed on one side of the bison while the boar fed on the other. The wolves circled closer and closer to the bison and the feeding bears as darkness fell.

With winter fast approaching, the bison's death provided a crucial resource for the grizzlies and wolves. Yet these powerful competitors navigated around



each other with great patience and little aggression. I wondered if people could do the same thing. The future of these magnificent animals outside of Yellowstone depends on it.

To watch the Yellowstone banquet, go to <http://vimeo.com/79674331>. ■

Chris Crowe has been a field technician for the Yellowstone Elk Calf Mortality Study and an intern for the Red Wolf Recovery Program. He now works for the Smithsonian Conservation Biology Institute.

Wild Kids



Mary O'Callaghan with her parents at the International Wolf Center in Ely, Minnesota.

Birthday Girl Raises Money for Wolves

Vocabulary

Behavior: How an animal reacts or acts under specific conditions.

Habitat: A species' natural environment. Habitats provide the food, water, shelter and space an animal or plant needs to survive. Forests, deserts, and lakes are a few examples of habitats.

Wildlife: Animals that are not tamed or domesticated. Wildlife can range in size from microscopic organisms to animals as large as whales.

It's not every day that a 10-year-old foregoes birthday presents, raises money to support wolves and convinces her parents to travel more than 2,000 miles to deliver the donation in person.

Last summer that's exactly what Mary O'Callaghan and her parents did. Mary became interested in wolves in second grade and found the International Wolf Center online. "I bought a bunch of things from the Wolf Den store," Mary recalled. "My parents got me a membership and a cool necklace."

For her birthday this year, Mary asked for a wolf-themed party at an ice skating rink—complete with party guests eating ice cream and cake without utensils. "Like the wolves would do," explained Mary. In lieu of gifts, the birthday girl invited her 15 guests to contribute money to support the Center.

"I raised over \$200 and my parents were nice about it and doubled the amount," she said.

Then Mary convinced her parents

that they should drive from their home in California to Minnesota to deliver the money she raised.

"I just said I really wanted to go," Mary said. "They surprised me and said we would go there." So in August, the O'Callaghan family headed east to spend a week in Ely.

"It was really fun. We saw all the wolves having a snack of a deer leg. I liked it when Luna and Denali were playing tug of war with it," said Mary. "Boltz and Denali were chasing Aidan for his food. I had watched them on the Web cams, but it was cool to see them in real life. That was the first time I've seen a live wolf act naturally in its habitat."

Someday Mary hopes to be a wolf expert herself. "When I grow up I want to be a naturalist and study them. I want to be an intern [at the Center] someday," she said.

The Center is grateful to Mary for her generosity and enthusiasm and to her parents for supporting her interests and encouraging her philanthropic spirit. Thank you!

Spring brings new discoveries and changes for wolves. The melting snow and ice reveal winter's buried caches, such as bones. These caches often spark investigative behavior. As the spring pup season nears, the active, sometimes aggressive, behavior of the winter mating season quiets down. Not only does wolf behavior change by springtime, but wolves' bodies also get ready for summer. In April and May wolves shed their thick undercoat, leaving behind a single layer of fur. This coat is comprised of guard hairs, which repel water. By summer wolves look much thinner than they did in winter. How do you get ready for spring and summer?





Denali is the largest member of the International Wolf Center's Exhibit Pack. Many visitors mistakenly assume Denali is the dominant member of the pack due to his size. Denali weighs approximately 138 pounds (63 kilograms) and is taller than his brother Aidan. Despite Denali's larger size, he remains submissive to Aidan in rank order. Denali has a playful nature. He often runs and plays with Boltz and Luna, the yearling members of the Exhibit Pack. ■



International Wolf Center

Denali



Make-a-Word

How many words can you make from the following terms?

Try making two-, three-, and four-letter words using the letters found in each term below. If that's too easy, see if you can make a five-letter word from each term. Some of these terms have been used in previous issues of *International Wolf*. Can you remember them?

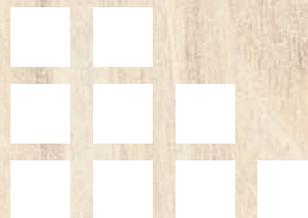
Example: Habitat

a	t			
h	i	t		
t	h	a	t	

Behavior



Carnivore



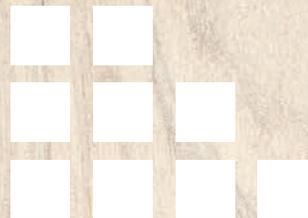
CHALLENGE: FIND A FIVE-LETTER WORD FOR EACH PUZZLE!



Dominance



Predator



CHALLENGE: FIND A FIVE-LETTER WORD FOR EACH PUZZLE!





A Look Beyond

Experts Debate Future of Wolf Recovery

by Nancy jo Tubbs

At the International Wolf Center's Wolves and Humans at the Crossroads symposium in Duluth, October 2013, three renowned wolf experts debated the subject of wolf recovery.

Mike Phillips, executive director of the Turner Endangered Species Fund, led efforts to restore red wolves to the Southeast and gray wolves to the Greater Yellowstone Ecosystem and has served on several Mexican wolf recovery teams.

Ed Bangs, former U.S. Fish and Wildlife Service gray wolf recovery coordinator for the northwestern United States, was involved with the recovery and management of wolves in Montana, Idaho and Wyoming. He led the inter-agency program to reintroduce wolves to Yellowstone National Park and central Idaho.

Larry Voyles is director of the Arizona Game and Fish Department, which has nearly 650 employees, a \$100 million budget and owns or manages about 274,000 acres, a portion of which supports a population of recovered but still federally protected Mexican wolves.

While the experts expressed wide-ranging opinions on the success of the Endangered Species Act and the work yet to be done to recover wolf populations, their stances were remarkably similar on the roles of science and social-political decisions in state management issues like wolf hunting.

Noted for his pragmatic approach, Bangs said, "Science is only one small part of conservation. If you look at wildlife conservation across the globe, it's about people. It's about what we do and how we act and how we conduct our activities. It's politics. It's stakeholder building. Science does not answer the difficult social questions."

From day one, Bangs said, the purpose of wolf recovery and wolf reintroduction was to reach a viable population, delist it and turn management over to the states so wolves could be managed like mountain lions, black bears, deer, elk, antelope and other species. "Some of the most successful wildlife restoration and conservation programs in North America happened under the states and under the guidance and help and money from sportsmen," Bangs stated.

Voyles referred to the minimum number of wolves needed for a viable population and the maximum number that could be sustained in an area. "Any decision between minimum viable and maximum sustainable is a social decision," Voyles said. "You are managing to social outcome."

Phillips noted, "Life is politics. I think the states do a great job day in and day out, managing the tension between competing interests that express themselves politically."

Bangs said people need patience to better understand wolf recovery. "People started talking about putting wolves in Yellowstone in the '60s. We need persistence. It took 30 or 40 years and a lot of effort and persistence to have that happen. And it would behoove us to listen to the other side a little bit more—from both sides—and realize that ranchers and hunters have legitimate concerns about wolf restoration. People who like to view wolves or see wolves in the wild or just like to know that they are there have legitimate ... perceptions about what wildlife in North America should be, and they should be heard."

Phillips said people need to understand the complexity of recovery; it is not simply the prevention of extinction. Recovery must include viable populations that are widely distributed.

"Recovery is based on the needs of the species in question," Phillips said. "If you set recovery against the economics of it, most of these species will lose. They cannot compete against the almighty buck," he said. "Sometimes the almighty buck sits in the back seat. Sometimes the innate right of an organism to exist is what's most important."

Voyles advised that people in conservation work need to be in it for the long haul. "After less than 20 years into the Mexican wolf recovery effort, people claim it's a failure. But we have 75 wild wolves on the ground where less than two decades ago we had zero," he said. "That's a huge turning point in any recovery effort."

Most important is to understand the nature of the conversation. "Conservation is at the crossroads. You look at the House-proposed budget that slashes state wildlife grants, that devastates all the conservation portions of the farm bill, that cuts or guts the funding for all of our national conservation organizations, and you realize that we have to change this vitriolic discussion," Voyles said. "We need to reframe our dialogue about how we bring people together to create a 21st century of conservation that has all the systematic structures it takes to be successful 100 years out, not just getting the wolf on the ground tomorrow."

The group applauded Voyles' statement that a calm, rational discussion needs to take place. "People like those in this room will have to be the ambassadors that bring everyone together constructively for conservation," he added.

The symposium featured 100 presentations and attracted more than 450 participants and wolf experts from 18 countries. ■

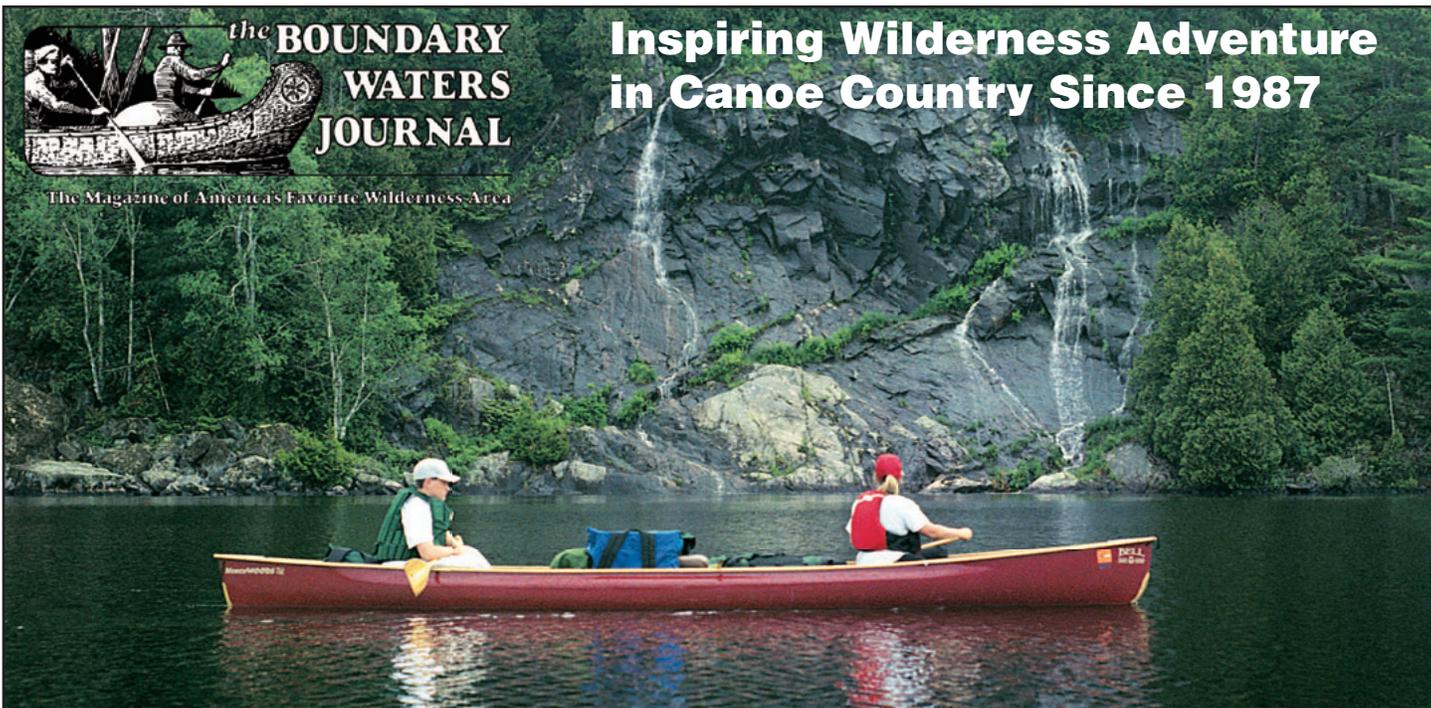
Nancy jo Tubbs is the chair of the International Wolf Center's Board of Directors. She adapted this article from her November 8, 2013, column in the Ely, Minnesota, Timberjays newspaper.



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PASSION

Luna—Photo by Darcy Berus

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