



THE QUARTERLY PUBLICATION OF THE INTERNATIONAL WOLF CENTER VOLUME 20, NO. 4 WINTER 2010

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L. David Mech



Another Viewpoint. War, Hunting-Trapping is Best Plan to Manage Gray Wolf Populations

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On the Cover

Photo by Michael Healey Denali, an ambassador wolf at the International Wolf Center.

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Publications agreement no. 1536338

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International Wolf welcomes submissions of personal adventures with wolves and wolf photographs. Prior to submission of other types of manuscripts, address queries to Bruce Erickson, magazine coordinator.

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this magazine.

International Wolf Center Receives Two Videoconferencing Awards

arlier this year, the Inter- ■ national Wolf Center received ■a 2009-10 Pinnacle Award from the Center for Interactive Learning and Collaboration (CILC) and a Teacher's Choice Honorable Mention Award from Berrien Regional Education Service Agency

CILC presents its Pinnacle Award annually to 25 cultural organizations across the United States and beyond that deliver outstanding K-12 standards-based, interactive videoconferencing programs. To qualify for the award the provider must receive a minimum 2.85 average score out of a possible 3 on its program evaluations from educators during the school year. The evaluation assesses seven areas: two related to the effectiveness of the presenter and five related to the educational content of the program.

"This year we had a record number of recipients, which clearly demonstrates that the quality of videoconferencing programs for K-12 students is stronger than ever," said Ruth E. Blankenbaker, CILC executive director.

CILC, a nonprofit, provides services, including consulting and workshops, to help develop,





support and evaluate video distance learning programs and community projects to maximize learning. Prior to this year, the Center had won CILC honorable mention awards the previous two years.

Each spring, Berrien RESA hosts the Teacher's Choice Awards to select the best content providers for the school year based on teacher surveys from the United States and Canada. Berrien RESA's mission is to provide programs and services to enhance learning opportunities for the 29,000 students in Berrien County, Michigan. Berrien RESA serves 16 public school districts, 30 parochial schools and 4 public school academies.

"It's an honor to be recognized and to receive both of these awards," said Jerritt Johnston, director of education at the Center. "To receive this type of feedback on our educational programs is gratifying and speaks to the talents and hard work of our staff."

UPDATE: Lake Superior Zoo Wolf Exhibit

In the 2010 fall issue of *International Wolf* magazine, we printed an article about the Lake Superior Zoo in Duluth, Minnesota, opening its wolf exhibit. After the article went to press, weather and other challenges delayed the opening. For the most current information about the future opening of this exhibit, please go to the Lake Superior Zoo's Web site at www.lszoo.org.

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From the Executive Director

"Honestly, guys, caribou is overrated."

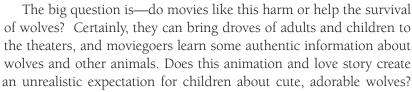
—Humphrey in "Alpha and Omega"

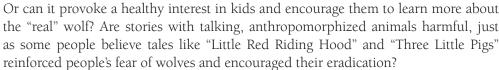
nce again a new movie with wolves has hit big screens across the nation. At least this movie, "Alpha and Omega," is clearly a benign cartoon for younger children, not like "Twilight," with its fearsome wolf shape-shifters. "Alpha and Omega" is a love

story between Humphrey and Kate. (Sound like Bogart and Hepburn?) Humphrey, a wolf with bright blue eyes, is designated as an omega while Kate, with long eyelashes,

> heads off to Alpha School. (Hmm, they must not have read about the change in alpha nomenclature.)

> They are both caught and tranquilized in Canada's Banff National Park and relocated to Idaho by your stereotypical wolf biologist, clothed in red plaid and driving a beat up truck. Kate sports a flower in her hair, while Humphrey thinks "caribou is overrated." Despite the storybook clichés, the film shows a surprising number of "real" wolf facts and behaviors.





A fantastical movie version of a wolf's life may encourage children to learn the "real deal" about wolf behavior later. It may even spark a lifelong interest in the natural sciences. It may prove no more harmful than the puppets many wolf education organizations use in their programs for youngsters. On the other hand, movies on the scary spectrum cast the wolf as dangerous and demonic and are unlikely to promote much further learning about the animal. How many of us wanted to go into shark research after seeing "Jaws"? Maybe we are stuck between the pros and cons of casting wolves in movies, the "cliffs and claws" as Kate said while running from a huge black bear.

Perhaps the new movie will have little public impact. After all, there were only eight people in the theater when I attended. That was not the case in the "Twilight" series, however. In the end, whether the movie animals are cute or horrifying, the challenge remains: After the closing credits roll, how can we help children distinguish between fantasy and fact and foster maturity in their understanding of the natural world?

What do you think?

Please send me your thoughts in an email, mortiz@wolf.org, or send a letter to 3410 Winnetka Avenue North, Suite 101, Minneapolis, MN 55427. This will be an interesting discussion.



Mary Ortiz

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Endangered Species List

EDITOR'S NOTE:

The issue of wolf delisting from the federal Endangered Species
List is in the news again and will be for the next year or so.
When wolves are again removed from that list, each state will protect and manage them including by regulated public hunting sooner or later.

Idaho and Montana held a wolfhunting season in 2009 while the wolf there was temporarily off the Endangered Species List.

Thus in this issue, International
Wolf presents three articles
discussing these important and
controversial subjects and no
doubt will carry more in the future.

State Management

Considerations for Developing Wolf Harvesting Regulations in the Contiguous United States

by L. DAVID MECH

Editor's Note: The Journal of Wildlife Management (JWM) gave International Wolf magazine permission to reprint the following article. To see the complete, annotated version, please see JWM's September 2010 issue or go to www.wolf.org/wolves/learn/basic/resources.

ray wolves that have been on the United States Endangered Species List (ESL) since 1967 and protected by the Endangered Species Act (ESA) of 1973 have recovered in the western Great Lakes Area (GLA) and the Northern Rocky Mountains (NRM). Gray wolves have been removed from the ESL twice and then relisted based on litigation involving technical legal issues. Meanwhile, their populations continue to increase and have well exceeded biological recovery criteria. Estimates of wolf populations in the GLA are about 4,000 and in the NRM > 1,700, far exceeding biological recovery criteria, so final delisting within a few years seems probable.

Thus wolves in several states will be governed by state regulations. Six states with viable wolf populations (MN, WI, MI, MT, WY, ID) now have detailed wolf management plans, all of which envision public harvest sooner or later. In addition, Oregon and Washington now have breeding wolf populations, and single wolves have recently been found in UT, CO, ND, and SD.

In 2009, Idaho and Montana began public hunting of wolves during a period when wolves there were delisted while a legal challenge to delisting was pending. Both states instituted several wolf-hunting zones with different quotas and seasons in each. Montana harbored >500 wolves in December 2008 and set a harvest quota of 75. In Montana, backcountry zones were open from 15 September through 29 November, the general season spanned 25 October through 29 November, and the winter season was to extend from 1 through 31 December if quotas were not yet met. However 72 wolves were taken by 16 November, and the season was closed. Idaho with >850 wolves in December 2008 and >1,000 estimated in December 2009 set a quota of 220 wolves plus 35 for tribal lands. The Idaho season ran from 1 September to 31 December and was extended to 31 March when only about half the quota was taken by mid-December. By season's end 188 wolves were harvested. In both states wolves could only be taken by general fair-chase rules. More than 15,000 hunters purchased wolf tags at \$19 for resi-



dents and \$350 for non-residents in Montana, and more than 26,000 licenses were purchased in Idaho, where resident licenses cost \$11.50 and non-resident \$186. The proportion of hunters who purchased tags deliberately to hunt wolves versus those who bought tags so they could shoot a wolf while elk or deer hunting is unknown. Still only those 2 states outside of Alaska have had even limited experience with regulated public taking of wolves.

With wolves recently on the ESL, much of the public finds it hard to believe, distasteful, or dismaying that wolves can now be harvested. Conversely, many ranchers, outfitters, guides, and sportsmen living with recovered wolf populations are relieved that they can now help control or legally harvest wolves. Therefore public taking of wolves is more controversial than taking most other species and probably will remain so. This divided public opinion makes it especially important for states to give special thought to developing their wolf-harvesting regulations, which must involve fair-chase taking that is also effective

A Brief Review of Wolf Biology

Most wolves live in packs with a mated pair of adults (breeders or formerly "alphas") and their offspring of the previous summer (pups), the summer before (yearlings), and sometimes 2-year-old offspring. Eventually most of these offspring mature, disperse, and become lone wolves until they find mates, settle into their own territory, produce pups, and start a pack of their own. Packs are nomadic

within territories averaging 116 km² to 344 km² in the GLA and up to 1,400 km² in the NRM from about November through March. From April through September or October members radiate out from a den where pups are raised for about 8 weeks and then from a series of rendezvous sites where pups stay and are fed and tended by adults. Pups grow and develop rapidly and by November, if well fed, may almost reach adult weight. Pups begin to grow their winter guard hairs in late August and September and possess their winter coats by late November. Adults start shedding their winter coats in April and grow new winter coats by November.

While nomadic, a wolf pack travels far and wide within its territory hunting primarily ungulates. Wolves are basically crepuscular but are often active day or night. They travel up to 72 km per day, averaging about 27 km per day in some areas, but when they make a kill, they may remain at or within a few kilometers of it for up to 3 days. Wolf densities in the GLA range from 20 to 67 wolves per 1,000 km² and in the NRM about 12 wolves/1,000 km². However during their nomadic phase, pack density is more relevant to hunting than is individual wolf density because most members of a pack will then be in the same location. In the GLA, there are 4 to 9 packs/ 1,000 km² and in the NRM about 1.5 packs per 1,000/km² of wolf range.

Effectiveness of Wolf Harvest

Given these biological realities, managers are faced with developing harvest regulations that satisfy 2 opposing main requirements: 1) they be liberal enough to allow the public a reasonable chance of taking the desired number of wolves to meet harvest objectives, and 2) they be conservative

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Endangered State Species Light Management

enough to maximize public acceptance. It is not clear which of these requirements will be more easily met.

Harvesting many wolves is not always easy, which is why in regions where they were not extirpated but have long been harvested, extraordinary methods have been used, although not all are necessarily used now. Such methods include aerial shooting (also currently employed for livestock depredation control by Wildlife Services in the NRM), tracking by snowmobile (Canada), and spotting from aircraft and then landing to shoot wolves (i.e., "land and shoot") in Alaska. These approaches appear unfair to much of the public who are unaware of the difficulties of taking wolves and are bitterly opposed. Hunting wolves with fair-chase standards had never been tried in the contiguous 48 states until 2009. Such standards succeeded better than some expected in Montana and worse than some expected in Idaho. However, there is reason to believe that in most extensive forested areas with low road density fair-chase hunting deliberately for wolves will not be very productive given the low density of packs and the crepuscular and extensive travels of wolves. Chances are high that most wolves taken by fair chase will be shot incidental to big-game hunting, primarily because of many hunters afield during those seasons. Currently, such seasons end by December in most states that harbor sufficient wolves where public taking could open.

Deliberately seeking to shoot a wolf is even harder than going out to see one. Furthermore, after the novelty wears off in a few years there might be little incentive for hunters in most states to deliberately seek wolves. Wolf pelts when prime (mid-Nov through Feb) and with no mange may bring \$100 to \$300, and many hunters will

consider 1 or 2 trophy wolf rugs for their wall as all they need. Given the low chance of success, hunting would not be lucrative for many even if each person were allowed to take several wolves. In Minnesota when wolves could be killed year around and were hunted, trapped, and snared for



bounty only about 200 wolves were taken annually. Alaska, with 7,000-11,000 wolves, harvests about 1,000 wolves a year.

This leaves trapping with steel-foothold traps or snaring as possible wolf-harvest techniques. These techniques are used successfully in Alaska and much of Canada as well as for wolf livestock-depredation control during summer and fall in the GLA and the NRM. Trapping and snaring are also opposed by much of the public but

Most wolves live in packs with a mated pair of adults (breeders or formerly "alphas") and their offspring of the previous summer (pups), the summer before (yearlings), and sometimes 2-year-old offspring.

Endangered State Species Light Management





Because wolves were recently on the Endangered Species List, many still carry radio collars—and at least some states will continue to use such collars to monitor their wolf population.

have been accepted as control techniques by many wolf advocates who oppose aerial hunting, land and shoot, and snowmobile tracking. Nevertheless, such trapping is also very difficult, expensive, and time-consuming. Even during summer when trapping success rates are much higher than in winter, the Wildlife Services cost is about \$1,400/wolf. Within a few years after seasons are established, probably few people will have the motivation to trap, hunt, or snare many wolves, although many hunters may persist enough to each take a few.

Conceivably, hunters in some states might develop methods for taking wolves more efficiently. Possibly hunters of cougars, black bears, coyotes, or bobcats who currently use dogs could also train dogs to track wolves. However, wolves kill and eat dogs, so probably few hunters would risk trying this method. Artificial howling or predator calling can attract wolves, and some hunters will succeed with this technique. Nevertheless, because wolf pack density is so low, much less success with this method can be expected than with predators whose density is many times higher. Prebaiting as is used with bears in Minnesota might work, but the large amount of meat necessary and the long wait during cold weather probably would discourage most hunters. (Bears are baited with readily available stale bakery products during September.)

Because wolves were recently on the ESL, many still carry radio-collars, and at least some states will continue to use such collars to monitor their wolf population. States currently prohibit hunters and trappers from using tracking receivers for taking wolves because this technique would not be considered fair chase. Use of snowmobiles, all-terrain vehicles, and horseback to track down and shoot

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wolves might be useful in more open areas for short periods before wind obscures tracks in snow. Effectiveness of these techniques and the regulations governing their use probably will vary by state.

Acceptance of Wolf Harvest

Maximizing public acceptance of wolf harvesting will be hard no matter what taking techniques are used. Nevertheless there are some considerations that can reduce public opposition. The primary consideration is to open the season only after most pups have reached adult size and are no longer readily identifiable as pups, usually about November. Killing animals that are obviously pups will invite much revulsion, even by sportsmen. Referring to these grown pups as "young-of-the-year" would help, and not opening the season until November would minimize possible harvest of obvious pups.

Delaying wolf-harvest seasons until November also minimizes pelt-preservation problems and would have 2 other public-relations advantages. First pelts would then be prime and thus worth more, pre-empting claims that wolves are being killed when their pelts are economically worthless. Second, wolves will have left rendezvous sites. Although wolves will be harder to hunt then, this approach would prevent a hunter who happens to find a rendezvous site to inform others who could then kill the entire pack, even if each hunter only had one tag or permit.

A similar consideration that can be made toward the end of any annual hunting or trapping season would be to end the season before fetuses in gravid females are obvious. In most northern states that would be by 1 March, which also coincides with

when wolf fur has lost its prime. Allowing harvest through February, however, would assist with wolf control by increasing chances that gravid wolves would be taken.

Managers can maximize good use of wolves taken by any method through a concerted campaign to educate hunters about care and handling of harvested wolves. Experience during the 2009-2010 hunts in Montana and Idaho indicates that many hunters do not know how to skin wolves or care for their pelts. Merely freezing wolf carcasses is unsatisfactory for several reasons. Thus, states should provide instructions for skinning wolves and preserving their pelts.

Whereas the above considerations focus primarily on public perception of the humaneness of hunting, some of the public will judge the success of wolf hunting by its ability to decrease conflicts between wolves and ranching. Wolf-taking regulations should therefore attempt to focus wolf harvest on areas where wolves kill the most livestock. Reducing wolf density there could reduce conflict with humans and the need for costly deliberate wolf control while also gaining more public support. Similarly, where states perceive the need to reduce wolves to increase wild prey, concentrating public taking there could reduce the need for deliberate control by state agencies, which tends to be opposed by certain segments of the public. In this respect, it also will be important for states to consider establishing restricted zones around areas sensitive to the public such as national parks. In 2009, Montana acted quickly to close an open hunting zone north of Yellowstone after more wolves in an adjacent wilderness were taken than in an adjacent settled area. This desire and ability by states to adapt as they learn will be especially important

"Deliberately seeking to shoot a wolf is even harder than going out to see one. Furthermore, after the novelty wears off in a few years there might be little incentive for hunters in most states to deliberately seek wolves."



harvesting. As experience accumulates,

states can refine their regulations to maximize taking wolves where they

conflict most with human interests

and where and when public concern

Plan contains a provision for private

citizens to assist with livestock-

depredation control. Private trappers

would be certified to trap livestockdepredating wolves in a given area

for a specified period and would be

paid on a per-wolf basis. Animal-rights

and animal-welfare groups have

characterized such payments as bounties implying that such a payment

is abhorrent. However the proposed

payments per wolf are for specific

wolves at a specific location at a given

time and for a specific reason.

Historically the objectionable aspects

of bounties were that any individual of

The Minnesota Wolf Management

about wolf taking is least.

a given species could be taken anyplace (a certain state or county) at any time even though livestock depredation only occurs by specific wolves in specific locations at a given time. From an objective standpoint it is hard to fathom a moral or ethical distinction in killing a wolf by someone being paid by salary, per hour, or per wolf. Thus the per-wolf payment that Minnesota proposes is not a bounty in the historical sense. Conceivably more states will attempt to model wolf livestockdepredation control programs after those in Minnesota, so it will be important for such states to explain this distinction to the public.

Management Implications

In the long run, it is doubtful that more than a few resident sportsmen will attempt to take many wolves deliberately. After the novelty wears off and enough sportsmen have their trophy rug, there probably will be little motivation to pursue wolves, except by a few trappers. Thus most wolves ultimately will probably be taken incidental to big-game hunting and by guided hunts for non-residents seeking a trophy. Managers who consider basic wolf biology and public sensitivities and who adapt public wolf-taking regulations accordingly will be best able to maximize the recreational value of wolf harvesting, minimize public animosity toward it, and accomplish wolf population management objectives.

L. David Mech is a senior research scientist for the U.S. Geological Survey and founder and vice chair of the International Wolf Center. He has studied wolves for 50 years and published several Acknowledgements

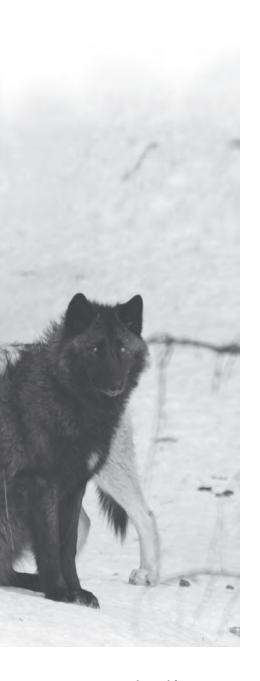
My study was supported by the

Biological Resources Discipline of the U.S. Geological Survey. L. G. Adams, E. Bangs, C. Niemeyer, R. R. Ream, and J. Hart reviewed earlier drafts and offered helpful suggestions for improving the manuscript.



books and many articles about them.

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Another Viewpoint: Why Hunting-Trapping is Best Plan to Manage Gray Wolf Populations

BY JIM HAMMILL

anaging wolf populations by use of population control methods, which include public "take" (recreational hunting, trapping), is likely the most contentious wildlife management issue of modern times.

The legal complexities brought on by interpretations of the Endangered Species Act and emotionally charged rhetoric from protectionists, antihunters and anti-wolf publics have obscured most of the basic doctrine that has served wildlife so well on this continent. Since 1930, the North American Model of Wildlife Management has served to protect, enhance, reestablish and assure sustainability for a great many species in this country. Scientific wildlife management is a cornerstone of the model. Hunters, trappers and anglers are the "tools" used to fund and assure the system remains effective. It is the most successful model of wildlife management in the world today. Many iconic species once near extirpation or extinction thrive today as a result of good management administered by the states using this system. It is my view

wolves would greatly benefit from being managed for sustainability using the North American Model of Wildlife Management.

In his article (page 4), David Mech states wolf population control by use of traditional hunter-trapper means will be difficult. He concludes purposeful pursuit of wolves is likely to be insignificant to population control and notes harvest incidental to big game hunting will be more common. These points suggest wolf management and control using states' authority through the North American Model will be ineffective. I disagree.

Although recent experience in wolf management using hunters and a zone and quota system is limited to Montana and Idaho (in 2009), the results are telling. It appears both states were successful in achieving harvest goals (100% in Montana; 85% in Idaho) within the timeframe allotted. Often, first-year hunts on species that have not recently been hunted experience low success rates, as hunters and trappers learn new techniques and

Endangered State Species Lis Management



strategies to be successful. Clearly, hunters were very effective in these two hunts. Even in Alaska where hunter density is extremely low and wolf populations are high, incidental harvest of wolves accounts for an annual take of 9 to 14 percent of the population, depending upon which population estimate you accept. On Prince of Wales Island in southeast Alaska, researcher Dave Person concludes a combination of hunters and trappers can control and limit wolf populations. If wolves have large nearby refuges, however, control by these means is likely to be ineffective. In general this would not be the case in the Midwest. Wolves in the Midwest depend on a mosaic of private, state, federal, county and industrial forestlands with few "refuges." Nearly 18 million people live within a day's drive of western Great Lakes' wolves. Minnesota, Wisconsin and Michigan have large numbers of hunters and a strong tradition of hunting. In these states and elsewhere, predator hunting is among the fastest growing segment of the shooting sports.

Based on the above, it seems logical to me wolves could be controlled by hunters and trappers. Wolf numbers could be regulated by the states through a zone-quota system using our best wolf and human dimensions science to assure not only control but also population sustainability. This is not rocket science or conjecture; it is simply the great American experiment of wildlife management at work.

The template is well tested. Black bears, white-tailed deer, pronghorn antelope, American bison, mule deer, grizzly bears, caribou, American elk, Canada moose, Shiras moose, a myriad of small game and waterfowl all are managed under this great umbrella of science-based decision making. The gray wolf deserves no less.

I agree with Mech that the annual timeline for wolf hunts should coincide with the period of fur primeness and should avoid obviously gravid females. Further, principles of fair chase must be part of any new wolf-harvest plan. However, the principle foundations for a wolf harvest must also assure population sustainability. In addition, collection of biological data from hunter-trapper harvested animals would provide additional biodata for decision making regarding future seasons.

The public will judge the success of a state's management by its ability to decrease conflicts between wolves and people. I believe a wolf harvest regulated by a zone-quota system of hunting and trapping could greatly help to reduce wolf-livestock conflicts. In addition, hunters' perceptions of wolves affecting game species and conflicts between wolves and dogs could be alleviated.

People who have a "live and let live" attitude toward gray wolves do not fully appreciate many of the realities that exist when wolves share the landscape with humans. Such a philosophy is at least tenable in true wilderness where "natural processes" proceed in the absence of humans. But when people and wolves share the landscape, a "hands off" approach to this apex predator is neither practical nor humane.

Seventy years of wildlife science, hundreds of high-quality wolf studies and a hunting-trapping public that wants to see wolves remain on the landscape provide the background for a future where wolves and humans can coexist. Managed hunting and trapping of wolves can play an important role in that future. I'm not aware of another approach holding as much promise of success.

Jim Hammill is a retired wildlife biologist with the Michigan Department of Natural Resources. He has studied wolves and wolf management for 20 years and served as a board member for the International Wolf Center.



Wolves in the Midwest depend on a mosaic of private, state, federal, county and industrial forestlands with few "refuges." Nearly 18 million people live within a day's drive of western Great Lakes' wolves."



Tracking the Pack

The Influence of Young Adults

by Lori Schmidt, wolf curator, International Wolf Center

The focus of the past few installments of Tracking the Pack has been on aging wolves, with Shadow and Malik transitioning into the Retired Pack. This article will address the most significant reason for that transition—the influence of maturing young adults.

A significant portion of a young captive wolf's behavior may be influenced by inherent behavioral traits evolved from life in the wild. Because pups remain in the den for the first few weeks of life,

most research data on pup mortality is gathered in the 4-month to 8-month age class. Data reveals 20 to 40 percent mortality, with the most commonly reported causes being disease, parasites and starvation. In captivity, a detailed veterinary care plan includes vaccinations, regular fecal checks for parasites and parasite treatments, so these factors are not significant causes of mortality in a captive environment.

One of the most noticeable behaviors in captive

pups is their insatiable appetite, likely motivated by life in the wild where survival is highest if a pup can eat more than its littermates. In captivity, regardless of food availability, pups will eat and dominate food resources, even successfully displacing adult wolves on a large carcass. All of our litters in the past two decades of captive wolf management at the Center have demonstrated this behavior. But none of the previous demonstrations of food possession has been as intense as that displayed by Denali, a 2008 pup representing the northwestern subspecies. As a 2year-old, Denali is still capable of defending a carcass

from any pack member and is the first wolf to eat his limit, generally 20 pounds at a feeding. Aidan, a littermate to Denali, ranks lower in status, but Denali allows him to feed without conflict, possibly due to a genetic littermate tie. All of this food is bound to create a strong physical condition; Denali weighs 108 pounds and Aidan, 104 pounds, good solid weights for 2-year-olds.

Another trait of maturing adults is the constant testing behavior and youthful energy level, which can affect older pack members. Denali and Aidan, the Center's youngest pack members, are constantly investigating and looking for opportunities to climb rank in this nonrelated pack structure. The influence of these young adults dictates the rotation of wolf pups on a four-year basis. To ensure adequate time between retired packs, the following age hierarchy is desirable for the Exhibit Pack:

- New pups (every four years)
- 4-year-old, mid-range pack members
- 8-year-old pack members

By the time the pups become 2-year-olds, the older pack members will be ready for retirement, allowing four years of retirement before the next set of pups reaches maturity. With this management strategy, we avoid overpopulating the retirement enclosure and have an ample amount of exuberant young wolf behavior to accomplish our mission to: Teach the World about Wolves.



A significant portion of a young captive wolf's behavior may be influenced by inherent behavioral traits evolved from life in the wild.

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International Wolf

Wolves of the World

Wolves Meet their Match in Airborne Predators

An ancient tradition gives new meaning to aerial wolf hunt

by Tracy O'Connell

The small, solitary wolf trots across the rock-strewn valley; with a backward glance he picks up his pace. On a hill above, four horsemen watch, wearing the fur garb that has clothed their people for eons against the unforgiving cold; each carries a golden eagle on a thickly leather-clad fist.

Two of the birds lift off and sweep down the valley; the wolf is now in a flat-out run, but propelled by a seven-foot wingspan, the first bird piles into him and they tumble, a flurry of legs and wings, each grappling for a lethal hold. The wolf shakes the 10-pound bird as a terrier would a toy, but he is unable to dislodge the talons and beak. Then the second bird hits, and the wolf soon lies still. The horsemen, riding fast over the loose rock rabble to keep the action in sight, call the birds back to their handlers' fists. The wolf's body is lashed to the back of a saddle,

These are the eagle hunters of western Mongolia, and the prowess of their fabled raptors, or birds of prey, is depicted in a number of videos one can see online. Viewers comment on this primal struggle and the bond of man and bird. A deeper look into the practice and the players yields interesting relationships among these top predators: man, wolf and eagle.

The golden eagle is called a *berkut*, or *burkut*, in this part of the world. (Translations are from the Cyrillic alphabet and therefore imprecise. Pronounced bear-KUHT.) An experienced handler is a *berkutchi* (or *burkutchi*). Eagle hunting of wolves, once done for survival in the harsh lands where Mongolia, Russia, China and Kazakhstan come together, is



today largely carried on as a cultural expression of the Kazakh peoples, many of whom fled to the Altai Mountains in western Mongolia from the Communists who sought to change the Kazakh's nomadic, herding ways into communal farming, and who forbade both

eagle hunting and use of guns. Today they are vodka-drinking Moslems who herd sheep, goats and yaks and live in *gers*, the round, felt homes commonly called yurts in the West. In the winter, when fur-bearing wild creatures yield the most prime pelts, they hunt.

The Kazakhs capture their birds from the wild in the spring, as is the case in most of falconry, the general term for hunting using birds of prey. Young eagles are trained according to traditions handed down over generations and flown in the fall and early winter. Female birds are used, as they are a third larger than the males, and hence stronger, as is the case with many raptors.

Like the wolf, golden eagles are said to mate for life. Like the wolf, they lack natural enemies. Like the wolf, they sometimes team up for a kill, though they hunt in pairs at most, rather than in packs. Both species have been trained by humans to assist them in the hunt, and at times, humans pair their descendents. Sporting breeds of dog like spaniels or setters are used to flush game birds for the raptor to kill; hunting breeds like scent or sight hounds are used for larger game. In either case, their role is similar to that when hunting with a gun.

Golden eagles, like wolves, have existed around the world in various subspecies. The largest nesting community today is said to be in California.





The official bird of five nations, it is protected by the U.S. government and considered sacred by many native peoples in the United States and Canada, where only members of recognized tribes can own eagle feathers for ceremonial or spiritual use.

Online there is much information, some of it conflicting, to be found about these large raptors. The PBS (Public Broadcasting Service) Web site has a section called "Nature," where its Eagle IQ pages indicate the golden eagle eats primarily carrion, insects, lizards and small mammals. However, video footage of these birds in the wild

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shows them pulling down young livestock, knocking a young mountain goat off a cliff to kill it, attacking a roe deer in the Czech Republic and putting the run on a grizzly bear.

The BBC (British Broadcasting Corporation), filming the reindeer migration in Finland, photographed eagles attacking reindeer calves, a claim it says has been supported by the native Sami people and forensic evidence. Like the wolf, the golden eagle has been hunted in the United States by ranchers who believed (mistakenly, according to PBS) eagles

were killing sheep. Some 40,000 eagles were shot, some from planes, in the

United States during the 1940s and 1950s, according to Stephen J. Bodio, a U.S. author of the book *Eagle Dreams* (2003). In it he relates his lifetime of longing to see the Kazakh hunters he had viewed in books and magazines since childhood and his efforts to hunt with them.

The practice of falconry predates recorded history and transcends cultures. Today it is considered a cultural heritage by UNESCO (United Nations Educational, Scientific and Cultural Organization). Hunting with eagles is legal in many countries, including

the United States and the United Kingdom, provided one has the required permits. But those who hunt with eagles are a special breed within the falconry community, a group sometimes shunned by colleagues who prefer smaller raptors, and see eagle hunters' choice of "weapon," or their choice of prey, as too gross for the refined, aristocratic sport of hawking, or hunting with birds.

Bodio cites a video promoting Kazakh eagle hunting that was panned at a world falconry convention as too graphic. Suggesting there was nothing in the film that did not exist in nature, Bodio was told by a magazine editor, whose board had nixed a story about eagle falconry, "The public thought it was okay for eagles to hunt, but not for people to enjoy it."



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Bodio was not alone in his search for the remote Kazakh peoples and the romance of their sport. Alan Gates in northern England writes on his Web site (www.eaglefalconer.com) about his time living among the nomads in western Mongolia where he attended the golden eagle festival, held each year in October, to celebrate the hunting prowess of these large birds. The festival was only two years old in 2001, when he attended, and he was among a small coterie of Westerners allowed entrance. Today it is a featured attraction among the many tour groups one can find online, which offer Westerners a look into the life of the people of Mongolia.

The International Association for Falconry and Conservation of Birds of Prey similarly reported on its site (www.i-a-f.org) that a golden eagle festival held in nearby Kyrgyzstan in 2008 was more successful than the one a year earlier, with a larger turnout including more television cameras and international journalists.

Largely banned in neighboring Kazakhstan by the Soviets, the sport could be making a comeback there. The Epoch Times reports ("Kazakhs Chase History with Ancient Eagle Hunting," Dec. 6, 2009), "Two decades of economic growth that followed Kazakhstan's independence from Moscow's rule in 1991 have also created a generation of young Kazakhs whose search for a new identity has led them to look deeper into history."

Britain's Gates says the hunting of foxes with eagles is very much alive among the Mongolian Kazakhs, but their use to hunt wolves today is rare and usually just for show, for jour-

nalists and tourists. Eagle hunting of wolves was even more widespread in earlier days, Gatessays. The Mongolians "ruined" it when they converted to Buddhism in the 15th century, he adds. Kublai Khan and Genghis Khan were each reported to have had 1,000 raptors, including eagles, for their hawking forays during the 12th and 13th centuries.

Today nomads are paid to put on these shows, Gates says, and they need the money; they are told they are preserving their culture by letting others film them. In an email exchange, he claimed the wolves used for this staged combat were often young, and in some cases might have been captured and had their mouths wired shut first, which falconers would consider unsporting. No fans of the locally plentiful wolves, these livestock herders are more likely to use guns and dogs to thin the predators than risk their carefully trained eagles, he says.

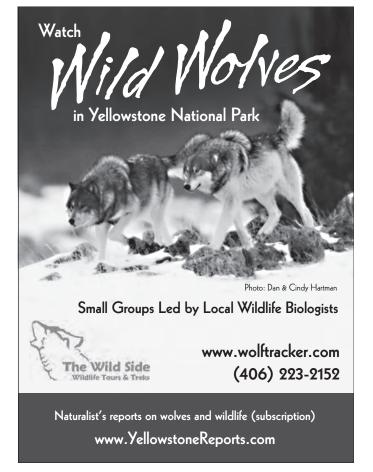
Gates' notion that the shows are mostly staged was echoed by a repreManai (now deceased, and who like many older people of the region has no second name) liked to release his eagles when they were 10 years old to live wild and breed. Golden eagles typically live for 30 or more years. "If you want to turn your eagle loose, don't hunt wolves with it," was Manai's caution to Bodio about the danger to which the birds are subject when tackling such prey.

As aerial hunting of wolves is debated in the modern world, it is interesting to consider this centuries-old clash between the top hunter of the air and of the ground, which plays out in remote lands half a world away, and the parallels between them that exist across cultures.

Tracy O'Connell teaches marketing communications courses at the University of Wisconsin-River Falls and serves on the International Wolf Center's magazine and communications committees.

She is fascinated by anything ethnic.

sentative of the travel company Mongolian Attractions in an email exchange, who nonetheless doubted Gates' claim of wiring the wolves' mouths shut. Bodio agrees the eagle wolf hunts are often staged today, though a Kazakh friend had brought down a wolf with a large eagle in a non-staged hunt just before Bodio's visit in 1998.



"But those who hunt with eagles are a special breed within the falconry community, a group sometimes shunned by colleagues who prefer smaller raptors, and see eagle hunters' choice of 'weapon,' or their choice of prey, as too gross for the refined, aristocratic sport of hawking, or hunting with birds."

eyes were strong to Sollowed by a muffled half-bank followed by

The Life of a Lone Wolf

by Kira Cassidy-Quimby

For thousands of years, humans have been fascinated by wolves. Their social, family-like bonds make it easy to compare them to our own families. Although most people think of a pack when they think of Canis lupus, some wolves defy convention. For over two years, I had the privilege of working for the Yellowstone Wolf Project, observing many wolf packs, countless individuals and one memorable long-term lone wolf.

The first sightings of the loner began in early 2007. He already had the husky body of a mature male and was easily recognized by his white muzzle and permanent limp on his back right leg. I wondered where he came from. Could he be a disperser from the Mollie's pack (a group known for having large, bison-hunting male wolves)? Or the Gibbon pack? Or had he traveled from outside the park?

It is common for wolves from far away to travel to Yellowstone's northern range in the northeastern corner of the park during the short breeding season. However, the newly named "Jasper male" decided to remain in the area afterward. His new, gray female companion was probably an important factor in the decision. The pair was occasionally seen in the Lamar Valley on Jasper Bench, a landscape feature and the male's namesake. Because neither wolf wore a radio collar, they were only found by careful scoping of the distant mountainside or when they



It is common for wolves from far away to travel to Yellowstone's northern range during the short breeding season. gave themselves away by howling. Howling was a way for them to claim their small piece of real estate tenuously situated between the large Druid, Slough and Agate packs.

If the first mystery was the origin of the Jasper pair, the second was the sudden disappearance of the gray female. I assumed the male would travel on, looking for another mate. But the Jasper male had found a small, productive territory, and he was prepared to stay, even by himself. For the next year, he was seen frequently in the Jasper Bench area, always alone.

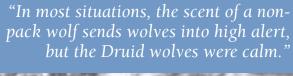
In the scientific and public communities, it is thought being a lone wolf is generally a temporary status—that dispersing wolves are constantly on the

lookout for others to help start a pack. The one exception is old wolves, former breeders that lost their mates or were displaced by younger animals. Certainly the Jasper male could have traveled a short 50 miles (a distance wolves have been known to cover in a single day) and encountered many females looking to disperse from their own packs. But he stayed in the Jasper Bench area. I thought it was a lonely existence for such a social animal as the wolf.

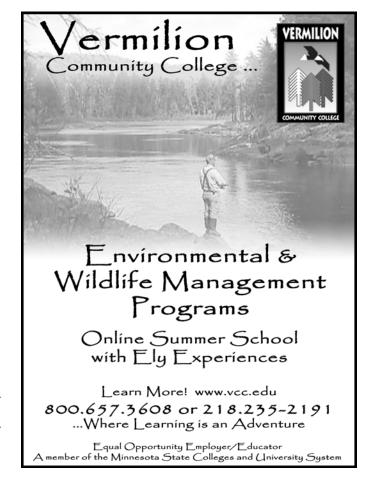
In summer 2008, I saw the Jasper male feeding on a freshly killed elk calf. A group of four Druid pack wolves was a few miles away and possibly by coincidence began to travel toward the Jasper male. Calmly he walked 150 meters from the kill into a small but

thick stand of aspen trees. I never saw him come out the other side and figured I had missed him when I trained my scope on the Druid wolves beginning to feed. In most situations, the scent of a non-pack wolf sends wolves into high alert, but the Druid wolves were calm. Eventually they left, and I was shocked to see the Jasper male limp out of the same trees. With ears and tail in a neutral position, he went back to feeding. He had hidden within sight and scent of the wolves, which would have chased him out of their territory if they had known he was there and probably killed him if they had caught him.

Months went by with no sign of the Jasper male. Then in late 2008, I spotted a huge black male with a white muzzle and a limp on his back leg. I smiled as a bright white wolf came running up behind him. He lumbered along, and the white female ran ahead, scent-marking the area. She then ran back to lick the male's face and started







to lead again, her bright tail like a flag. The pair stayed together but mostly out of sight until mid-2009, when I watched them travel and hunt near Jasper Bench.

Once again, the movements of the Jasper male became a mystery until one frigid day in late 2009, when he was spotted alone on top of Specimen Ridge. Silhouetted against the tumultuous sky, he limped along like he has for years. It would be the last time I saw him—although I've thought that before. As I sat there, I thought about wolves, and I thought about the valuable impact they have on the Yellowstone ecosystem, but mostly I thought about how lucky I was to have had a glimpse into the Jasper male's life. As it became too dark to see, I said a quiet goodbye and thought of the Russian proverb: A mountain with a wolf on it stands a little bit higher.

After working for the Yellowstone Wolf Project for over two years, Kira Cassidy-Quimby is now attending the University of Minnesota to pursue a master's degree in wolf territorial behavior. She is advised by L. David Mech.





A Look Beyond

Legalistic Rulings Jeopardize Wolves and the Endangered Species Act

Recent rulings by courts in both the Upper Midwest and the Northern Rockies regarding wolf recovery in those areas have resulted in widespread public concern. The rulings in both cases placed the wolf back on the Endangered Species List but were based on legal technicalities, not biological realities. The biological realities are wolf populations in most wolf recovery states are from 2 to 10 times greater than government recovery plans require for delisting. Wolf numbers reached

official recovery levels in the Upper Midwest in 1995 and in the Northern Rockies by 2002. The U.S. Fish and Wildlife Service began attempting to delist wolves in the Midwest in 2006 and in the Northern Rockies in 2008. In each case. lawsuits resulted in overturning the delisting and mandated wolves be placed back on the Endangered Species List.

International Wolf sought opinions about the court rulings and the resulting public backlash from four noted wolf biologists who have been directly involved with wolf recovery for many years: Dr. L. David Mech, a senior scientist with the U. S. Geological Survey and an adjunct professor at the University of Minnesota, who has studied wolves and wolf management for over 50 years; Dr. Rolf O. Peterson, professor at Michigan Technological University, who has studied wolves for 40 years; Dr. Robert R. Ream, a retired

professor at the University of Montana, who has studied wolves for 15 years; and Mr. Jim Hammill, retired wildlife biologist with the Michigan Department of Natural Resources, who has studied wolves and wolf management for 20 years.

IW: How long have you been involved with wolf recovery and what is your involvement?

Mech: Since the early 1970s, I have been a member of wolf recovery teams

for the Midwest, Northern Rockies, and Mexican wolf populations and have helped develop these recovery plans.

Peterson: I have chaired the wolf recovery team for the Midwest population since 1996.

Ream: As a University of Montana professor, I studied wolves when they began naturally recovering in Montana, and I was a member of the Northern Rocky Mountain Wolf Recovery Team from 1974 to 1988. I now chair the Commission on Fish, Wildlife and Parks for Montana

Hammill: I was a wolf biologist for the Michigan Department of Natural

"The on-again/off-again delisting of wolves and the consequent alternating state responsibility for wolf management has greatly confused and frustrated the public."

— Dr. Rolf O. Peterson, professor at Michigan Technological University





Resources while wolves recovered in Michigan and Wisconsin and have been a member of the recovery team for wolves in the Midwest since 1996.

IW: What are your concerns about the recent court rulings on wolf delisting?

Mech: I fear general public attitudes about wolves are reverting toward the negative. Since the early 1970s when wolves were the symbols of endangered species, public attitudes tended to be sympathetic toward wolves. Now attitudes are beginning to shift more toward the negative. This change was recently documented in an analysis of media pieces about wolves.

Peterson: People tend to tolerate wolves more when they know conflicts with wolves can be managed, particularly depredations on livestock and pets. The on-again/off-again delisting of wolves and the consequent alternating state responsibility for wolf management has greatly confused and frustrated the public. Options for reducing conflict are particularly limited in Wisconsin and Michigan, where wolves cannot be legally killed following depredation even by federal agents.

- Dr. Robert R. Ream,

Hammill: In Michigan, we have seen a strong negative change in public acceptance of wolves. Once wolves enjoyed very strong support, even among hunters. However, since technicalities in the Endangered Species Act have been used to keep wolves from rightfully being delisted, support has eroded, and now wolves are being killed illegally across their range here. Michigan just experienced its first decline in wolf numbers since wolves reappeared in 1989.

Ream: Much of the public in the West has also lost respect for the Endangered Species Act. Ranchers, landowners, guides and hunters are fed up with everyone associated with wolf restoration, recovery and management. They tolerated, and many supported, wolf recovery for years as the federal government changed its recovery requirements

from 10 packs per state to 15 packs each and then flip-flopped on whether the Wyoming wolf management plan was adequate or not. Now the latest court ruling relisting wolves was the last straw, and illegal killing of wolves will prevail. Folks are so upset that senators and representatives in our area are preparing legislation to change the Endangered Species Act and to delist the wolf legislatively. That could start a whole trend to unravel the law.

IW: We think it's important for our readers to keep abreast of the backlash described here by four veterans of wolf recovery and the threat it represents to wolves and the Endangered Species Act. Because events are moving quickly, we urge everyone to stay informed on the subject by regularly checking the News and Events section on our Web site, www.wolf.org.

"Much of the public in the West has also lost respect for the Endangered Species Act. Ranchers, landowners, guides and hunters are fed up with everyone associated with wolf restoration, recovery and management." Wolf numbers reached official recovery retired professor at the University of Montana levels in the Upper Midwest in 1995 and in the Northern Rockies by 2002.

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