Keeping the Wild in the West

Inside!

- Montana Wolverine and Fisher Trapping
- Kittens Restoring Colorado's Missing Lynx
- Connectivity and the Ecological Role of Wolves

Summer 2003 Volume 1, Number 3

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Introduction

Welcome to the third issue of the quarterly bulletin, ***Keeping the Wild in the West***, published by Predator Conservation Alliance. This bulletin reports on the conservation of the fisher, grizzly bear, lynx, wolf, and wolverine—carnivores native to the American West. On the following pages, new research and management efforts for these species in the American West are highlighted within these four sections:

- ***Research Round-up***, a collection of the latest carnivore-related science.
- ***New Actions***, a section highlighting best forest management practices in the Northern Rockies.
- ***Microscope***, an evaluation of a land management proposal framed by carnivore conservation principles.
- ***WANTED: Science***, an identification of gaps in carnivore research to encourage future investigation.

The purpose of this bulletin is to provide a forum for the latest scientific research and on-the-ground management practices for forest carnivores in western North America, and to foster their conservation through sound, science-based public policy. This effort was originated in the 2002 ***Keeping the Wild in the West*** report, and is supported by a web-based forest predator information clearinghouse, found at **www.predatorconservation.org**.

We encourage you to participate in this forum by sharing your ideas, research, and management practices for future editions of ***Keeping the Wild in the West!*** Please send content suggestions to David Gaillard at **gaillard@predatorconservation.org**.

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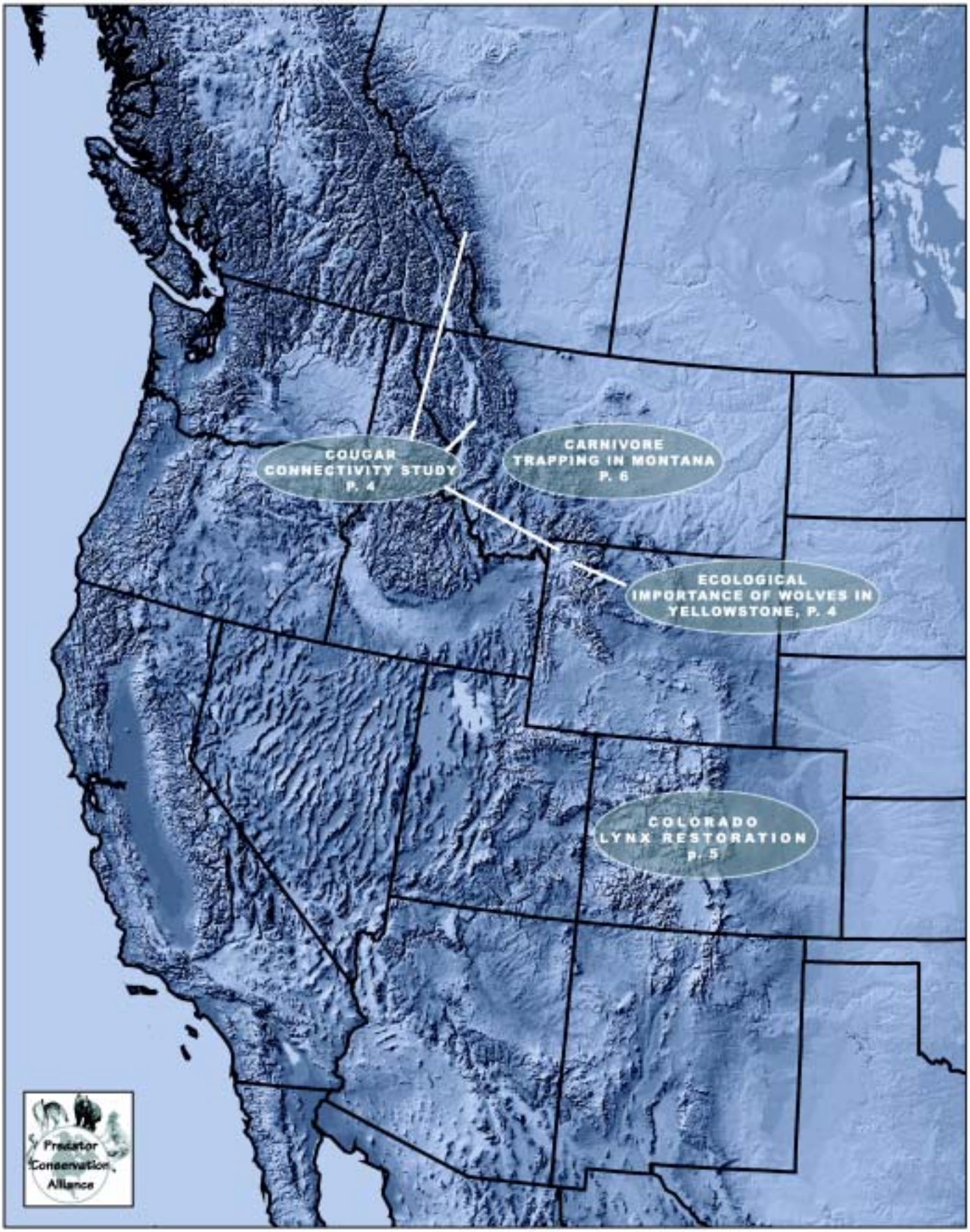
Predator Conservation Alliance (PCA), founded in 1991, is dedicated to conserving, protecting, and restoring native predators and their habitats in the Northern Rockies and Northern Plains.

Predator Conservation Alliance supports multi-species carnivore conservation efforts in the American West. For information on these efforts, and other predator conservation efforts undertaken by Predator Conservation Alliance, please visit our website at **www.predatorconservation.org**.

Acknowledgements

This bulletin was generously funded by the Leonard X. Bosack and Bette M. Kruger Charitable Foundation. Cover photos, top to bottom: Black wolf by Dan and Cindy Hartman; fisher courtesy of Idaho Field and Game; lynx kitten by Grant Merrill; wolverine by Jeff Copeland, Idaho Field and Game; and grizzly bear by Dan and Cindy Hartman.

In this Issue

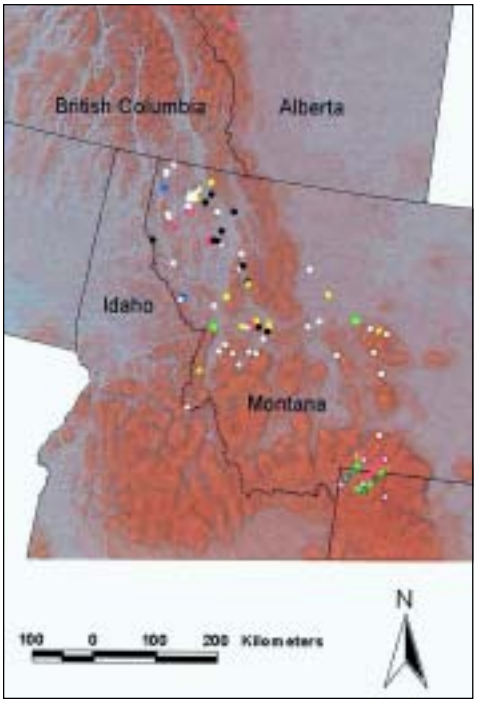


Research Roundup

A roundup of recent research findings for carnivore conservation and management.

Virus is the Cure for New Methodology to Determine Cougar Connectivity

A new methodology determining connectivity between cougar populations across southern Alberta, British Columbia, western Montana, and Wyoming was the highlight of a conference in Calgary this spring, attended by scientists and conservationists. In the study, University of Montana researchers Mary Poss and Roman Biek sought assistance from an unusual source—a non-lethal virus specific to cougars, carried by approximately 30% of the region's wild population. Poss and Biek used the virus to determine the frequency of contact between cougars inhabiting this vast landscape, where habitat is fragmented by human activities and developments. The rapid evolution of the virus allowed the researchers to identify which cougars had recent contact with others by analyzing the changes- or lack thereof- in the virus's genome. The more similar the virus was in cougars from different areas, the more likely those cougar populations had recently been in contact with one another.



Sample locations used by researchers to determine isolation of cougars in the Northern Rockies.

The initial results of the study are favorable to cougar conservation, since close connections were determined for cougars across most of this broad area. The methodology pioneered by the two researchers can help improve cougar management, by indicating where cougars may be isolated from other populations, and thus, more vulnerable to extirpation. This virus methodology may also prove to be just as powerful a conservation tool for the imperiled cougar populations of the southeastern and southwestern United States, and the potential exists to find similar viruses to study connectivity among other rare carnivores—grizzly bears, wolves, lynx and wolverines.

Contact Predator Conservation Alliance or the researchers themselves (**rbiek@selway.umt.edu**) for more information about this study. This research was made possible by the generous support of the Wilburforce Foundation and the Yellowstone to Yukon Conservation Initiative.

Ecological Importance of Wolves in Yellowstone Examined

A paper published this April in *BioScience* (Vol. 53, No. 4, p. 330) recounts the predicted ecological effects of wolves in Greater Yellowstone, and compares the actual effects of wolves on elk and other species.

Some predictions about the wolves' return leaned in the wrong direction, as projected declines of elk and other

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Yellowstone wolf researcher Douglas Smith examining growth of willows in creek bottom. Photo courtesy Douglas Loneman.

New Actions

A report on management practices underway to conserve forest carnivores.

One of 16 kittens born this year to reintroduced Colorado lynx, the first documented wild litters since the cat was extirpated decades ago. Photo by Grant Merrill.

Wild Kitten Births Bolster Hope to Restore Colorado's Missing Lynx

The Colorado Division of Wildlife has documented a total of 16 lynx kittens born this year, the first such births since lynx were reintroduced in 1999. The two most recent births were a brother and sister found at a secluded den on a forest blow-down within a steep, rocky slope at 11,000 feet. A total of 129 lynx have been released thus far, and the Division plans to release as many as 130 additional lynx during the next four years. The lynx were live-trapped in northern Canada and Alaska. The program alleviated initial problems of low survivorship by changing to a "soft-release" protocol, whereby lynx were held in captivity and "fattened up" prior to their release. The problem of low reproduction may be alleviated by releasing increased numbers of lynx to create higher population densities—thus increasing the likelihood that reproductively-fit lynx will be able to find each other in the years ahead.

Colorado Conservation Plan Reduces Risk to Trapping

Last fall the Colorado Division of Wildlife completed a lynx conservation plan to reduce the risk of lynx getting shot by bobcat hunters, or trapped by landowners with livestock. When the plan was prepared, six lynx had been shot, and four more lynx were suspected of having been shot in Colorado, New Mexico, and Nebraska. The risk of lynx being trapped in Colorado is already reduced by a statewide ban on the recreational take of bobcats by snares, toxicants, or traps (except cage traps). Landowners may use cage traps to protect livestock on private lands, but trapping may not exceed 30 days each year, and may occur only after CDOW has determined that other methods have failed to alleviate the damage.

For a copy of Colorado's Lynx Conservation Plan, contact David Gaillard at: **gaillard@predatorconservation.org**. For more information on Colorado lynx recovery, please visit **http://wildlife.state.co.us/species_cons/lynx.asp#Links:**

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prey ranged from 5%-30%. In contrast, elk numbers actually increased coincident with the return of the wolf, an apparent rebound from the severe winter of 1996-1997 (although slower than rebounds from other incidents of elk die-off). In fact, of all the animals in Yellowstone, the coyote appears to be most affected by the return of the wolves, with declines of 50%-90% recorded within wolf territories. Preliminary data indicate corresponding increases in the survival of pronghorn fawns, and predicted benefits to red foxes, wolverines, and other mesocarnivores that compete with coyotes.

Benefits to scavengers—grizzly bears, eagles, and ravens—and vegetative communities, especially willows and aspen, are also addressed in the paper. PCA applauds authors Douglas Smith, Rolf Peterson and Douglas Houston for their past and ongoing research on this issue, and we are happy to provide copies of the full article for anyone who lacks access to a university library.

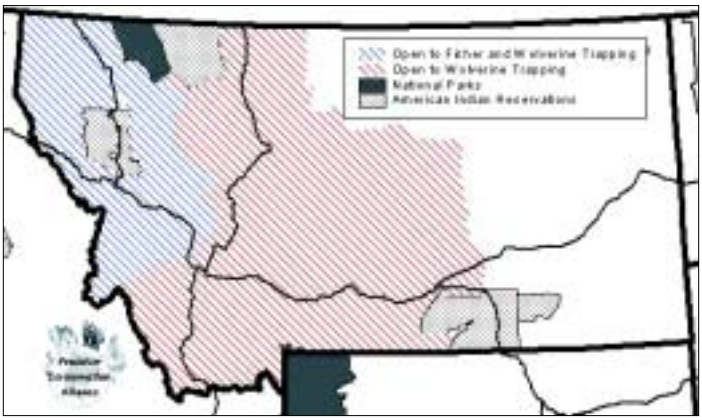
Microscope

An evaluation of how well a current management action addresses one of the four major factors limiting carnivore recovery: human-caused mortality, forest practices, motorized access, and fragmentation (see *Keeping the Wild in the West* report).

EDITOR'S NOTE: *While the topic of this issue —trapping management in Montana — is most immediately related to "human-caused mortality," it should also be considered an issue of "fragmentation." In short, the threat trapping poses to long-term conservation of carnivores has more to do with* ***where*** *it is done than the total number of animals killed, which is actually very few. Trapping poses a serious risk to fragmented carnivore populations.*

Trapping and Rare Carnivores in Montana

Montana is the only place in the contiguous United States where wolverines and fishers are legally trapped. This summer (2003), the Montana Department of Fish, Wildlife and Parks (FWP) Commission reviewed the trapping quotas for various carnivores and "furbearers" in the state, including fishers. Next summer (2004), the Commission will review the trapping management of all animals whether or not they have a quota, including wolverines. We examine the pros and cons of the current Montana regulations and propose some reforms.



Areas of wolverine and fisher trapping in Montana.

Montana Regulation Cheers!

- A "Bag Limit" of one wolverine or fisher per trapper reduces the take substantially.
- The annual quota of seven fishers ensures not too many animals are removed each year.
- Fisher trapping is limited to two districts in northwestern Montana where they are doing the best.
- Montana has some monitoring underway with snow track surveys along 20 transects each winter.
- Montana's lynx trapping season is currently closed to protect lynx.

Montana Regulation Jeers!
(and suggested reforms!)

- Montana's snow transect work does not provide reliable population estimates—no assurance that low numbers of wolverines and fishers trapped are sustainable. *(Convene an interagency and/or independent science team to develop a rigorous monitoring protocol for rare carnivores in Montana and across the Northern Rockies region; partner with NGO's, including both conservation and trapping interests in this effort.)*
- No annual quota for wolverines, and lack of spatially explicit quotas may result in over-trapping in many areas. Montana's "island" ranges that lack refuges from trapping are particularly at risk. *(Spatially explicit regulations based on reliable population data are standard practice for common species like elk and deer; this should also be done for rare carnivores. Trapping moratoriums should be established in areas where we lack reliable data for sustainability.)*
- The fisher quota was exceeded by two animals last winter, due to the delay between when the quota was met and the official end of the trapping season. *(If there is significant risk of exceeding the quota under current reporting methods, the season should be closed before the quota is met.)*
- Lynx (which are threatened) are vulnerable to traps

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WANTED: Science

An identification of important and timely research needed to inform carnivore conservation actions.

How do we identify specific areas of priority habitat for wide-ranging carnivores?

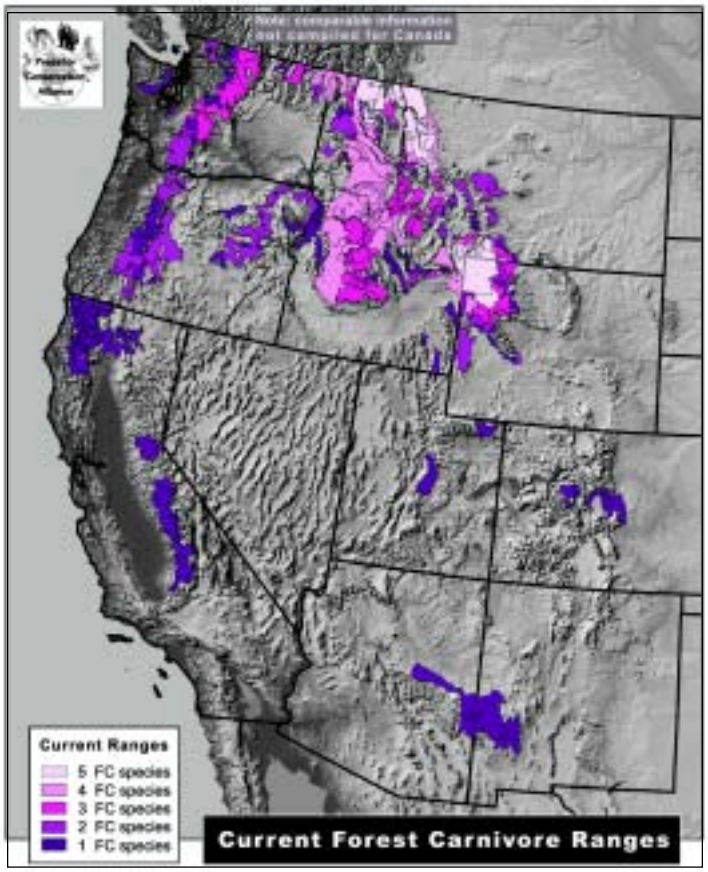
After prohibiting people to shoot, harm or harass wolves and grizzly bears, the next step toward protecting them and their habitat was to identify specific recovery areas for each of these species. Identification of "critical habitat" for any species has become controversial, especially when it comes to wide-ranging species like the forest carnivores. Critical habitat designation has become a serious obstacle to the timely development and implementation of comprehensive recovery programs.

WANTED — A science-based methodology to identify and prioritize "core" areas of habitat needed for the recovery and restoration of wide-ranging forest carnivores, such as the lynx, wolverine, and fisher.

How do we identify specific linkages to ensure that areas of priority habitat are connected?

Even with the success achieved restoring wolves and grizzly bears in core areas of priority habitat (e.g., Greater Yellowstone Ecosystem of northwestern Wyoming, and the Northern Continental Divide Ecosystem of northwestern Montana), much work remains to be done to restore and maintain connections between these areas for these animals, and for the whole suite of forest carnivores. The good news is that these areas need not ever function as "core" habitat- meaning that the animals do not reside there permanently-and thus may not need as stringent protections. The difficulty, though, is how to identify these areas that may be used only infrequently, and how do we know when the correct places have been identified and "successfully" protected for dependent species?

WANTED — A science-based methodology to identify and prioritize "linkage" habitat between the core areas identified above, which ensure connections within and between populations of wide ranging forest carnivores, such as grizzly bears, wolverines, fishers, lynx and wolves.



If you have ideas or suggestions for ***WANTED: Science***, please contact David Gaillard of Predator Conservation Alliance at: **gaillard@predatorconservation.org**.

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legally set for other animals; lynx also have been chased and illegally killed by mountain lion hunters with hounds. *(Montana should work with the U.S. Fish and Wildlife Service to develop a lynx conservation plan that prohibits trapping and lion hunting in the last remaining strongholds for lynx; Colorado's lynx conservation plan provides guidance.)*

What's Happening

Announcements/Calendar of upcoming carnivore events:

- **Summer Interagency Grizzly Bear Committee meeting, Cody, Wyoming, August 12-14**. IGBC meetings are free and open to all; the agenda is available online at **http://www.fs.fed.us/r1/wildlife/igbc/**
- **World Wolf Congress, Canmore, Alberta, September 25-27**. For information, call 403-678-9633, or online at **www.graywolf.ca/world wolfcongress/**

"Restoring the Whole: A Conservation Vision for the Northern Rockies and Northern Plains"

Predator Conservation Alliance Annual Conference

Mammoth Hot Springs
Yellowstone National Park
October 2-5, 2003

Elk and wolves in the Lamar Valley of Yellowstone National Park. Photo by Dan and Cindy Hartman.

For the past three years, Predator Conservation Alliance has hosted an annual conference and membership meeting. Each year, we choose a theme that is timely and pertinent to carnivore conservation, and this year is no different.

Our conference theme for 2003 will be on the role of ecological restoration in carnivore conservation—at the species, habitat, and ecosystem level. Featured speakers include celebrated writer Rick Bass, author of several wildlife-themed books (*The Ninemile Wolves, Platte River, New Wolves, Where the Sea Used to Be, Book of Yaak*, and work included in the *Best American Short Stories of 2001*). Also speaking will be Mike Phillips, executive director of the Turner Endangered Species Fund. We are confident our conference will play an important role in advancing the public's awareness of the need for, and benefit of, ecological restoration.

The conference will also offer afternoon field trips and "break out sessions" to further discuss the ideas, issues and opportunities outlined during the morning's presentations.

Join us for what promises to be an exciting, informative, and fun conference in a beautiful setting!

Reservations will be held for up to 250 people. Register by calling 406-587-3389, or online at **www.predatorconservation.org.**

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