



## Moving Swans Just Another Part of Idaho's Wildlife Diversity Program

By Rob Cavallaro

On August 23, Idaho Fish and Game biologists with the help of several partners introduced five 70-day-old trumpeter swan cygnets from Wyoming to their new home near the Teton River in eastern Idaho.

The cygnets were raised in captivity by the Wyoming Wetlands Society in Jackson, Wyo., and relocated along with their surrogate mother. This technique is designed to establish a bond between swans and suitable wetland habitat. The move could eventually result in new swan breeding territories in an important landscape for regional swan conservation.

In Idaho, because of threats to their breeding and wintering habitat, trumpeter swans are designated as a Species of Greatest Conservation Need in the State Wildlife Action Plan, administered by Fish and Game's Wildlife Diversity Program.

Fish and Game and partners expect it will take years of work to establish nesting pairs loyal to the Teton Basin.

About 30,000 acres of wetlands in the Teton Basin provide significant winter habitat for trumpeters. But extensive wetlands necessary for trumpeter swan breeding were limited in recent history because of habitat alteration and loss.

In the late 1990s, the Teton Regional Land Trust, working with private landowners, Fish and Game and the U.S. Fish and Wildlife Service, launched a partnership with the Intermountain West Joint Venture reversing a decades-long decline of wetland habitat.

To date, this partnership has secured \$5 million through federal grants, leveraging more than \$35 million in nonfederal match that has helped to protect more than 10,000 acres in the Teton Basin. This partnership also has fostered efforts to restore thousands of acres of wetlands, including large marsh wetlands with the potential to support nesting trumpeters.

Fish and Game, along with the Teton Regional Land Trust, the U.S. Fish and Wildlife Service, the Wyoming Wetlands Society and The Trumpeter Swan Society, worked to relocate the swans to the Teton Basin, because of the number of protected and restored wetland acres and its strategic location for nesting swans.

In the Upper Snake Region, the swans have been a catalyst to protect and restore thousands of acres of wildlife habitat on private lands. These projects were funded by federal and state programs.

Some of the most meaningful wetlands conservation has occurred along the lower Henrys Fork and Teton rivers. As

a result, funding to improve and protect trumpeter swan and other nongame species' habitat has benefitted wildlife prized by hunters and anglers, such as moose, waterfowl and trout.

Trumpeter swans, the largest waterfowl species in North America, were once threatened with extinction, primarily by unregulated harvest. Their feathers were sought for quill pens, ladies' hats and powder puffs. Establishment of refuges and legal protection has brought trumpeters back from the brink, and several populations are now thriving.

Trumpeters in eastern Idaho are part of a population that breed mostly in Alberta, Canada. But a smaller, more fragile flock breeds in the Greater Yellowstone Area.

Despite the general recovery of trumpeter swans, the viability of the Greater Yellowstone flock remains a conservation challenge. In 2013 only 12 trumpeter swan nests were active in Idaho. Some fear trumpeter swans could be eliminated in Yellowstone National Park.

*Rob Cavallaro is a wildlife biologist in the Upper Snake Region.*



Photo courtesy of Cary Myler  
Biologists band a young swan for its move to Idaho.

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## From the Director: Protecting Idaho's Natural Heritage

By Virgil Moore

Idaho's rugged backcountry and open spaces offer endless opportunities to appreciate what a great place it is that we live, work and recreate.



Part of what makes our outdoor experiences so fulfilling is the rich wildlife resources supported by the variety of Idaho's habitats. All

species, whether animal or plant, play on all of our senses whether we are conscious of them or not.

From kangaroo mice to jumping slugs, tiger beetles to alligator lizards, spotted frogs to sockeye salmon – the diversity can be mind-boggling. In all, about 600 vertebrate and potentially 6,000 invertebrate species occur in Idaho; when you add the nearly 3,000 native plants, the list grows to almost 10,000 species.

While we may take much of the state's biological diversity for granted, imagine for a moment how empty our outdoor

experiences would be without the hoot of an owl, the drum of a woodpecker, croak of a frog, rustle of aspen in the wind or vibrant color of wildflowers in a meadow. While many Idahoans cherish where they live because of the great hunting, fishing and wildlife viewing opportunities our state has to offer, I know as a hunter and angler the deep appreciation for the collective wildlife experience we all enjoy when pursuing our passions outdoors.

Idaho Fish and Game's statutory public trust responsibility is why the Wildlife Diversity Program is charged with providing stewardship over our "nongame" wildlife and native plants. These species represent the majority of all biological diversity in Idaho, and ensuring their existence in perpetuity will take serious dedication, collaborative partnerships, and, most importantly, broad public support.

No matter why you travel away from home to enjoy Idaho's mountains, forests, deserts and rivers, Fish and Game's Wildlife Diversity Program is working to help keep that experience rewarding. The program's shared vision is to maintain self-sustaining populations of all animals

and plants through leadership in scientific inquiry, mutually supportive partnerships and public awareness of the value inherent to Idaho's biological resources.

The program's work is focused on species in the greatest need of conservation, monitoring and research to understand a species' status, to identify population and habitat needs, and to develop conservation plans to preserve, protect, perpetuate and manage them. These actions under state authority will provide the conservation needed to ensure federal protections are not imposed. Providing habitat conditions that support the needs of a broad range of Idaho's species, not just those that are considered at risk, is a core principle of the Wildlife Diversity Program. By taking this holistic approach to conservation, many species will benefit, game and nongame, rare and common, animal and plant.

Next time you catch yourself daydreaming in Idaho's backcountry or wading one of its streams, stop for a moment to ponder all that surrounds you – all that makes that moment so valuable – right there in your own private Idaho.

*Virgil Moore is director of Idaho Fish and Game.*

## Monitoring Rare, Wild Plants at the Foundations of the Food Chain

With names like lance-leaved moonwort, green bug-on-a-stick or Spalding's catchfly, one might expect some of Idaho's native plants to attract attention.

But even those with large, showy flowers remain unknown to most Idahoans because they are extremely rare, like MacFarlane's four o'clock – with its striking magenta blooms – which occurs

in only nine sites in Idaho and a few others worldwide.

Of nearly 3,000 plants native to Idaho, close to 400 are rare. Management authority for these plants was transferred to Fish and Game from Idaho Parks and Recreation in 2003. Given limited funding for botanical work, efforts focus mostly on monitoring rare species.

Each year, botanists in Fish and Game's Wildlife Diversity Program monitor 15 to 20 rare plants around the state and search for new populations. They occasionally collect seeds for conservation in seed banks. They also collect seeds of common native plants for restoration after fires, and map noxious weeds that threaten rare plants or other natural resources.

Grants from federal agencies, along with Nongame Trust funds, pay for this

work, with no revenue from license sales.

The benefits of Fish and Game botany projects may not be obvious. Consider, however, that plants are the beginning of the food chain for every living thing – from a bull elk on a grassy hillside to a chickadee in your backyard feeder.

In addition to food, plants are a critical component of healthy habitats. Fish depend on plants to shade and cool the water and to buffer stream banks from erosion. Game animals depend on plants for shelter and hiding cover.

Rare plants may be valuable to agriculture, horticulture, and other uses. They hold genes that can help fight crop diseases and promote drought tolerance.

Idaho's rare plants are an important part of our natural heritage, and they help form Idaho's unique landscape, lending color and texture to the land.

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# Idaho Working on a Wolverine Conservation Strategy

By Beth Waterbury

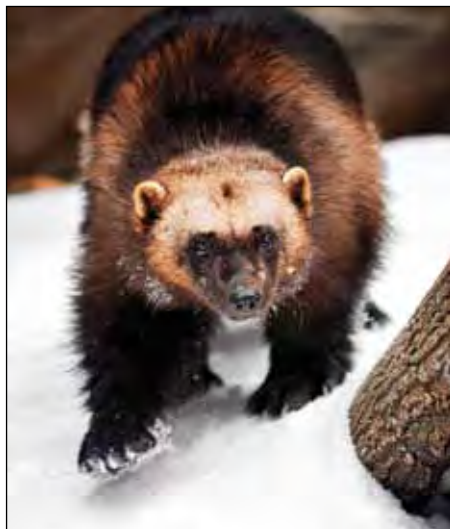
The wolverine is one of Idaho's most iconic species, wild and rugged as the snow-capped landscapes it inhabits.

With its thick, frost-resistant coat, large, snowshoe-like feet and powerful jaws to gnaw through frozen carrion, the wolverine is well adapted for life in alpine environments.

This elusive and largest of land-dwelling weasels is designated as an Idaho "Species of Greatest Conservation Need" based on low numbers and limited data on population trends. As such, it has been one of the highest priority species for Idaho Fish and Game's Wildlife Diversity Program for the past decade.

Idaho Fish and Game biologists have begun work on a wolverine conservation strategy that will set the direction for wolverine management, improve communication and coordination among resource managers, and identify and prioritize information and research needs.

Idaho has been a regional leader in wolverine research and conservation in the northern Rocky Mountain states,



The wolverine is the largest land-based weasel. beginning with former Idaho Fish and Game research biologist Jeff Copeland's study of wolverines in central Idaho in the early 1990s, to the ongoing Central Idaho Winter Recreation-Wolverine study led by Kim Heinemeyer of Round River Conservation Studies.

Fish and Game biologists have documented wolverine distribution,

contributed to the genetic database and refined monitoring techniques for this rare species.

With the wolverine conservation strategy, Fish and Game and its partners hope to continue to lead conservation efforts, not only in Idaho, but among the western states in the wolverine's range.

Unique among mammals, the wolverine depends on spring snowpack for successful reproduction. Female wolverines dig elaborate birthing dens in the highest elevations of their territories, tunneling 5 to 15 feet deep into the snowpack to keep their litters secure from predators and insulated from wind and below-freezing temperatures.

Females may move the nursing kits to secondary dens, keeping litters hidden under snow cover to nine weeks of age. Dens are abandoned in April or May when snowmelt begins to accumulate in dens – about the time kits are weaned. Wolverines appear to select habitats that avoid summer temperatures more than 70 degrees in August.

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## Wildlife Watching on the Idaho Birding Trail Promotes Conservation

By Deniz Aygen

The Idaho Birding Trail is your way to bird like a local with its statewide network of the best bird viewing opportunities in Idaho.

With 175 sites, organized into four geographic regions, the Idaho Birding Trail takes you off the freeways and highways and deep into Idaho's rural communities along backcountry byways.

The trail was created by the Watchable Wildlife Program, a part of Idaho Fish and Game's Wildlife Diversity Program, with the help of local birders and other state and federal agencies.

Like other birding trails around the country, the Idaho Birding Trail was created to stimulate economic growth through nature-based tourism in rural areas and during off-peak times of the year. The Idaho Birding Trail encourages travel throughout Idaho and features some of Idaho's finest natural attractions and little known birding hotspots.

In 2011, U.S. Fish and Wildlife Service reported that wildlife watchers poured \$432 million into Idaho's state economy. Whether spending money on lodging, food, transportation, optics or even camera gear, bird and wildlife watchers mean big business for Idaho.

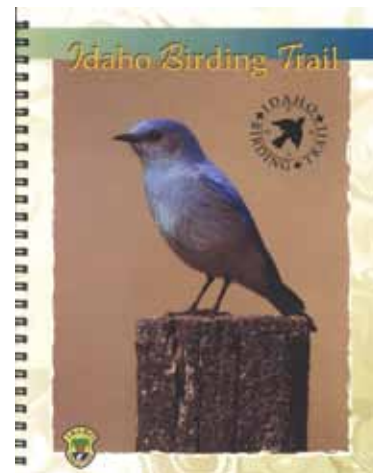
Along with the economic benefits, the Idaho Birding

Trail promotes the conservation of bird habitat and natural areas. Maintaining natural areas in urban and rural communities will benefit Idahoans by providing them with natural beauty and wildlife habitat.

Getting on the trail is easy – hop on [www.idahobirdingtrail.org](http://www.idahobirdingtrail.org) or buy the 135-page guidebook from a Fish and Game regional office for \$5. The website and book feature maps, detailed site descriptions, and color photos throughout. Site descriptions include directions, access information, focal species and habitat listings, and on-site visitor amenities. "Blue Ribbon" sites highlight the best of the best places to see birds in Idaho.

About 2,000 miles in all, the Idaho Birding Trail is a self-guided, auto tour of the state's diverse habitats and associated bird species. Like hidden treasure, many sites were known only to local birders.

*Deniz Aygen is the Watchable Wildlife coordinator at Idaho Fish and Game.*



## Biologists Hike Switchback Trails to Track Wildlife and Climate Data in Idaho

By Michael Lucid

Fifty-two switchbacks up and 52 switchbacks down made for a 4,000 vertical foot and 14-mile day for Idaho Fish and Game biologist Lacy Robinson when she took on one of the Idaho Panhandle's most punishing trails up Parker Ridge to swap out a Multi-species Baseline Initiative climate data logger.

The Multi-species Baseline Initiative is a group of organizations led by Fish and Game and funded by federal grants. The group is conducting surveys for wildlife and micro-climate across the Idaho Panhandle and adjoining mountain ranges. It has more than 1,000 data loggers out in the forests and ponds



Photo by Doug Alberston

The Coeur d'Alene salamander is found only in Idaho, Montana and British Columbia.

of north Idaho, recording climate information every 90 minutes at the same sites where we conduct wildlife surveys.

Each year since 2010, wildlife technicians and biologists have been going to each data logger to download data and switch batteries so another year's worth of micro-climate data can be collected. Their efforts are part of Fish and Game's Wildlife Diversity Program.

Micro-climate simply refers to the climate in a small localized spot. Any Idaho gardener knows planting tomatoes on the right part of their property can make the difference for a harvest ending in early September or lasting into October. The same principle holds true for wildlife – just a few degrees of difference may determine whether the species can live at a micro-site or not.

This is especially important for wildlife like salamanders, frogs, snails and slugs. These species tend to not move very far and have skin that acts like a sponge, taking in whatever moisture or air is in their immediate surroundings. It may sound like these species are getting a bad rap when it comes to being able to adapt to climate change, but there may be a silver lining to this cloud. Because we can modify or maintain micro-site environments through management, the fact that these animals don't move much

may actually make it easier for us to help them adapt to climate change than more far ranging animals like wolverines. But to do so we need to learn what types of micro-climate these animals need.

The Multi-species Baseline Initiative collaborative is working to do just that.

The data we collect at hundreds of sites will help us develop species specific climate adaptation strategies for the 2015 revision of the State Wildlife Action Plan. For example, our surveys might show us that a certain species of snail currently lives on west facing slopes in regenerating forests. Let's say we develop a model that predicts in 50 years the conditions this snail needs will still occur in regenerating forests but on north facing, instead of west facing slopes.

If this were the case we would be able to plan timber harvests now that would benefit the species decades later.

Figuring out how to help wildlife adapt to a changing climate is an intimidating challenge. But I think we can do it if we take the same approach Lacy took when climbing up Parker Ridge to get that data logger – one switchback at a time.

For more information on this program, go to: <https://fishandgame.idaho.gov/baseline>.

Michael Lucid is a wildlife biologist in the Panhandle Region.

### Help Protect Idaho's Wildlife Diversity

The Idaho Wildlife Diversity Program performs key functions mandated by law, but funding relies essentially on donations.

Proceeds from the sale of specialty wildlife vehicle license plates, state income tax check-offs and donations help Fish and Game conduct the kinds of activities described in these stories.

#### How to contribute:

- Buy wildlife license plates.
- Checkoff the Nongame Wildlife Conservation Fund donation box on the Idaho state income tax form.
- Make a donation:
  - Make a check payable to "IDFG" with "Nongame Conservation Fund" in the memo section and mail it to: IDFG, Idaho Wildlife Diversity Program, PO Box 25, Boise ID 83707.
  - Fill in the box on the Idaho nonresident license application.
  - Donate to the Idaho Fish & Wildlife Foundation at <https://www.ifwf.org/donate/>.

### Wolverines, continued from Page 3

In February, the U.S. Fish and Wildlife Service proposed listing the North American wolverine in the lower 48 states as a threatened species under the Endangered Species Act. Fish and Wildlife determined the primary threat to the estimated 250 to 300 wolverines in the contiguous United States to be habitat and range loss because of climate warming.

The state of Idaho disagrees, contending that the Endangered Species Act, as a regulatory tool, is not equipped to resolve climate change on a global level that would provide meaningful protections to wolverines.

Instead, Idaho supports continued state-led efforts to protect and conserve wolverine populations and habitats, and to advocate for collaborative approaches with natural resource managers, scientists, conservation practitioners and private stakeholders.

With a substantial body of research as a solid foundation and with population monitoring and conservation planning efforts afoot, Fish and Game biologists are poised to keep the wolverine an integral part of Idaho's heritage.

Beth Waterbury is a wildlife biologist in the Salmon Region.