

Windows to *Wildlife*



The holy grail: a wolverine climbs toward the bait, leaving its hair snagged in the gun brushes © IDFG

Luring the Elusive

Written by Diane Evans Mack*

McCall Subregion Wildlife Diversity Biologist, Idaho Department of Fish and Game

What do you get when you take four state agencies, more than 50 biologists/technicians/volunteers, 200 cameras, gallons of skunky-smelling lure, and countless field supplies ranging from gun brushes and batteries to snow machines and avalanche beacons? Answer: The Western States Wolverine Conservation Project. After almost two years of planning, the state wildlife agencies in Idaho, Wyoming, Montana, and Washington launched its first field project --- a camera survey to establish baseline occupancy and genetic characteristics of the wolverine metapopulation in these 4 states. This collaborative effort includes federal, state, and non-governmental organizations.

The Western States project is not the first study of wolverines in the west, or even in Idaho. Several research projects and many camera surveys have been conducted at smaller scales and yielded valuable information on wolverine ecology and local occurrence. What sets this project apart is that everyone is using the same methods and conducting surveys at the same time across a much larger geographic area (the northwestern US) than has occurred simultaneously before. By working at this scale, the survey intends to quantify a baseline wolverine occurrence across almost all of its occupied range in the lower 48 states.

Cameras provide a means to collect data 'hands off', or as the scientists say, 'remotely'. They provide a relatively unobtrusive way to explore the secret comings and goings of wild animals, both common and rare. Hang a food source from a tree in the frigid, uncompromising conditions of an Idaho winter and you can be sure animals will find it. Species that undoubtedly will show

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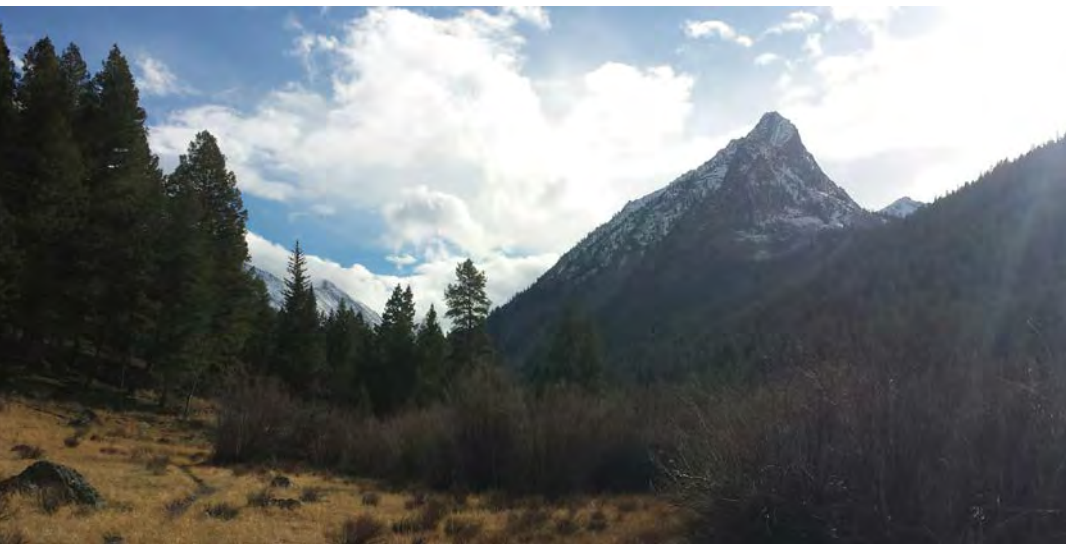
up on our cameras include ravens, chickadees, Stellar's and gray jays, red squirrels, fox, coyote, marten, and maybe a curious deer or two. But what we're really hoping to see are the rare forest carnivores---- wolverine, lynx, and fisher. We placed cameras in wolverine habitat specifically, and are using techniques proven to attract wolverine, fisher and marten, all of which are mustelids (carnivorous mammals). Lynx also move through wolverine habitat, but they tend to be attracted to different scents. Our camera station has a second scent source specific to lynx in hopes of drawing them into range of the camera should they be in the area.

Our camera stations include an attractant (lure and/or meat) and an array of gun brushes to snag hair for DNA tests. Photo detections of wolverines will be used to model probability of occupancy for each of the 633 225-km² grid cells covering the study area. DNA from hair collected on gun brushes will be analyzed to species to confirm or augment photo documentation. Not all samples will contain high-quality DNA, but those that do will yield additional information at the level of the individual wolverine (haplotype, gender). All cameras will be active by 1 December 2016 and remain in place through at least 31 March 2017.

About 60 camera stations occur in Idaho. The Idaho field crew is responsible for 56 of these, plus 1 station in northeastern WA and 1 station in the Tetons in WY. (MT is covering the other cells that fall within ID but are more easily accessed from the MT side). Beginning in mid-October, the crew focused on deploying cameras where winter access will be too difficult to allow monthly revisits to refresh bait and collect DNA samples. We hiked, skied, and snowshoed to these remote locations to get the cameras installed before snow closed the roads we needed for access. The remaining cameras were deployed by 1 December. We are now on a schedule of checking these accessible cameras each month to exchange camera cards, collect hair samples, and add new bait and lure. 'Accessible' is a relative term; already the field crew has dealt with snow drifts that swallow snow machines. Results from Idaho will be merged with the other states in late spring. Preliminary results from camera photos are expected in summer 2017. Final analyses are expected in 2018.

For more information on the Western States Wolverine Conservation Project in Idaho, contact: Diane Evans Mack, 208-634-8137; diane.evansmack@idfg.idaho.gov

Right: Alex Arnold spots Katy Nelson as she installs a camera station extra high to account for snow accumulation over the winter © Jason Husseman. **Below:** Wolverine habitat beckoning for a camera station © IDFG.



Tanked, Tagged, and Ready to Take Off

by Tiffany Coleman*,
College of Western Idaho (CWI)



Above: Freshly tagged B-3912 © Tiffany Coleman, CWI. **Below:** Butterflies waiting to be tagged and released © Tiffany Coleman, IDFG.



B-3912. Male. Tagged and ready for flight. Now a Monarch Butterfly, B-3912 was brought to College of Western Idaho (CWI) as a caterpillar from Deer Flat National Wildlife Refuge. Left to grow and transform into a brightly-colored butterfly, he has been literally hanging out-with several of his friends in a tank at the Nampa Campus Academic Building Tutoring Center. Under Biology program student Vance McFarland's watchful eye, B-3912 is finally ready for the long journey to his winter home in Southern California.

"This guy has a long way to go," McFarland said. "He is about to fly hundreds of miles away. If someone sees or finds this sticker out in the wild, it will lead back to me. And I sure hope it does."

McFarland has been working closely with CWI's Monarch Research Project for the past two years. The U.S. Army combat veteran, who once trained bomb-sniffing dogs as an infantryman, is taking a break between classes to tend to his friends in the tank. He, and a few fellow students, have been tracking and logging the butterflies' progress since early July. On this October day, they are tagging them and determining whether they are male or female. A few days from now, they will be released.

"When I started going to school, I knew I wanted to be in biology," McFarland said. "I got involved with this project last year helping Dusty Perkins map the milkweed distribution around (Lake Lowell) and that's where I first really started falling in love with monarch butterflies."

After spending this past summer chasing butterflies around Lake Lowell and in spots along the Boise River,

McFarland continued his work by bringing eggs and/or caterpillars back to the campus. So far, more than 50 have fully evolved into migration-worthy Monarchs.

"Some of them may make it as far as Mexico. Others will stop in California along the coast," he said. "When they get to where they are going, they will hang upside down in trees. The hope is that whoever may see them will see our (tracking) stickers and report the information so we know what happened to them."

The butterflies that make it through migration and the winter will begin making their way back to the north this coming spring and start the cycle all over again. McFarland, who completes his studies at CWI at the end of the year, plans to continue his Monarch research when he transfers to Boise State University.

How many birds will you find?

20th Annual Great Backyard Bird Count
February 17-20, 2017



Join in! Count birds in your backyard, local park, or wherever you spot a bird, and submit your observations online.

birdcount.org

American Robin
Photo: Shayna Marchese/GBBC



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Winter Wildlife Events

Boise WaterShed

11818 West Joplin Rd., Boise; (208) 489-1284

<http://bee.cityofboise.org/watershed/events/calendar-of-events/>

January 21- WaterShed Weekend: Snowschool Family Day

Join us for an afternoon of snowshoeing with Bogus Basin SnowSchool educators. Note: Boise WaterShed is closed. At noon, registered participants will be driven from a downtown lot to the Bogus Basin Nordic Lodge (courtesy of Caldwell Transportation Company), where snowshoes will be provided. Small groups will be led by SnowSchool leaders on family-friendly trails. Learn about snow science, investigate an igloo and try belly sliding! Space is limited to 44 participants. Registration and a \$5 per person donation is required by January 15 to reserve your spot. No groups please. Call 608-7300 or email BW@cityofboise.org.

February 18- WaterShed Weekend: Meet the Artists of the Boise Watershed River Campus

Join us at 10:00 a.m. at Boise City Hall for an introduction to the artists and their wonderful art installations in the new River Campus! Note: Boise WaterShed is Closed. From 10:00 a.m. to 1:00 p.m., Karen Bubb with the City of Boise Arts and History department will discuss the artists, the mediums used, and their interpretation of our journey through the Boise River watershed. The Boise WaterShed is now the largest collection of public art in the state of Idaho! The program will be held at Boise City Hall in the Council Chambers. Note: Boise WaterShed closed today.

March 18- WaterShed Weekend: A Walk to the Rookery

Join us for a half-mile walk to the largest heron rookery in Boise. Learn about the nesting and mating habits and other fun facts about this beautiful bird that makes the Boise River and surrounding areas its home. Bring your binoculars or borrow a pair from us to get a closer look at more than 80 nests! First rookery walk will be at 10:00 a.m., second walk will be at 11:00 a.m. Crafts and activities will be in the exhibit hall from 10:00 a.m. to 1:00 p.m. A public wastewater tour will be at 11:30 a.m. weather permitting, closed-toed shoes required, no stroller please.

Coeur d'Alene Eagle Watch

Each winter from November through January a migrating population of bald eagles visits the Lake Coeur d'Alene area to feed on spawning kokanee salmon. The BLM began counting bald eagles around Wold Lodge Bay in 1974. The number of eagles returning to this area varies from year to year.

From Coeur d'Alene, travel southeast on I-90 for 7 miles. Turn onto ID 97 south. Suggested viewing spots are Higgins Point, Mineral Ridge Boat Ramp, and Mineral Ridge Trail head.

Learn more and follow the action of the weekly counts: <https://www.blm.gov/programs/fish-and-wildlife/wildlife/about/idahol> and <http://www.spokesman.com/blogs/outdoors/2016/nov/10/video-details-ball-eagle-viewing-hot-spots-lake-cda/>

Craters of the Moon National Monument and Preserve

18 miles West of Arco on Hwy 20/26/93; (208) 527-1335

www.nps.gov/crmo/index.htm

Loop Road is Closed but We're Open for Winter!

Winter has arrived at Craters of the Moon and the dark lava rock now wears a mantle of white. The loop drive is closed to automobile travel but there are still many excellent opportunities to explore the park. Join us for the following winter activities and events:

January 7, 14, 21, 28 and February 4, 11, 18, 25 -Snowshoe Walk

1 p.m. - 4 p.m.; Explore a cooler side of Craters of the Moon on a Ranger-guided snowshoe walk. The day begins with a short introduction to the winter environment followed by a fun loop through the park on snowshoes. Look for tracks and climb a volcano on this 2 mile trek. Snowshoes are available for complementary use (donations accepted). Reservations are required and participants need to be at least 10 years of age for this moderately strenuous walk. Group size is limited to 25. Call 208-527-1335 or email (crmo_information@nps.gov) early to sign up for these popular excursions.

Cross-country Skiing/Snowshoeing-thru February (depending on snow conditions)

The 7 mile loop road is now groomed for skiing and there are no entry or user fees. Most of the Winter Trail follows relatively level terrain and can be completed in 2-4 hours. There are also excellent opportunities for snowshoeing throughout the park including our 1.5 mile snowshoe loop. Please note that pets and bicycles are not permitted on any of our winter trails.

Visit the website for maps and current conditions: www.nps.gov/crmo/planyourvisit/winter-activities.htm

Jim Hall Foothills Learning Center

3188 Sunset Peak Rd., Boise; (208) 493-2530

<http://bee.cityofboise.org/foothills/events/calendar-of-events/>

January 4- Birding Series with Terry Rich: Who's Here Now?

From 9:00 – 10:00 a.m., bird books and binoculars are available to borrow. Free. No pre-registration required. What other birds are wintering in Idaho, in addition to birds on our feeders? Terry will talk about where you can go to see birds that are year-round residents and overwintering populations.

January 11- Sunset Series: Avian Adventures Abroad: Brazil with Terry Rich

From 7-8:30 p.m., fun, free, adult education. Since its establishment in 2005, the Foothills Learning Center has offered a number of programs on birds for both youth, families and adults. For almost two years now, Terry Rich, a well-known local ornithologist, has been offering an engaging and popular Wednesday morning monthly birding series for adults covering topics such as identification, feeding, conservation, behavior, and evolution. All of these sessions have focused on Idaho birds, and even more so, on Boise-area birds. We'd like to take you farther afield! Terry has done a lot of international bird watching and he's come up with a terrific new theme for our evening lecture series focusing on three international birding destinations that he's experienced. These presentations will not only cover the birds, but also the people, food, roads, landscapes, and other aspects that make world travel the exciting adventure that it is! Brazil is a huge country with an astonishing variety of habitats that are very different from each other. These include the Amazon, the Atlantic Rain Forest, and the dry caatinga habitats of the interior Northwest. We'll look at a sampling of birds from each of these regions.

January 14- Second Saturday Series: Foothills Family Day- Winter's Wild Animals

10 a.m. - 1 p.m. Free. Family friendly, drop in/no pre-registration needed. Please- no pets. There are many animals that call Boise home. What do these animals do in winter? Listen as Brian Lawless, MK Nature Center AmeriCorps Educator and McCall Outdoor Science School Graduate, shares about winter adaptations of animals. We'll have stations and crafts that explore the animals that migrate, acclimate, and hibernate in Idaho!

January 19- Tour of the Reserves- A Hiking Series: Hillside to the Hollow Reserve

Pre-registration required! Please call (208) 345-6933 x16. All hikes are no more than 3 miles, free, and family friendly. From 4:30 - 6:30 p.m. Get to know your backyard as The Foothills Learning Center and Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are a growing and interconnected system that provides environmental, social, health, economic and related benefits. Maybe you are already familiar with the trails, but you don't know the history and plan for these special places. Come find out! Hillside to Hollow: Revered for its abundance of trails, views into Boise and unique experiences such as steep trails and large off-leash areas. 317 acres total, the City of Boise owns 258 acres, with the Land Trust of the Treasure Valley (LTV) owning 59 acres. Join us for a hike on the all-weather trail and hear how LTV acquired this property!

February 1- Birding Series with Terry Rich: What's the Overall State of the Birds Worldwide?

From 9:00 – 10:00 a.m., bird books and binoculars are available to borrow. Free. No pre-registration required. Which species are doing OK and which need help? Learn a bit about how populations are assessed for conservation action and efforts. We'll be discussing the following programs: Partners in Flight, the North American Bird Conservation Initiative, National Audubon Society, American Bird Conservancy and more!

February 8- Sunset Series: Winter Tracking-Reading Signatures in the Snow

From 7-8:30 p.m., fun, free, adult education. Learn from Ray Vizgirdas how to investigate the scenes and signatures of animals in the snow. In winter tracking, the stories are etched by wild beings, the parchment is frozen water and the pages are both fleeting and unending. Learn this new form of "literacy" from a tracking expert who will teach you how to "read" the snow and gather a treasury of information about the furry, feathered and fascinating lives of the characters in winter's story.

February 11- Second Saturday Series: Foothills Family Day- Bats and Moths

10 a.m. - 1 p.m. Free. Family friendly, drop in/no pre-registration needed. Please- no pets. The bats and moths may still be sleeping but we aren't! Come listen to Dr. Jesse Barber of Boise State University talk about the complicated predator-prey interactions between bats and moths! Learn about bats' echolocation abilities and what some moths around the world are doing to avoid being eaten by bats. There will also be crafts and activities to celebrate these strange winged creatures and their unusual adaptations.

February 16- Tour of the Reserves- A Hiking Series: Hulls Gulch Reserve

Pre-registration required! Please call (208) 345-6933 x16. All hikes are no more than 3 miles, free, and family friendly. From 4:30 - 6:30 p.m. Get to know your backyard as The Foothills Learning Center and Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are a growing and interconnected system that provides environmental, social, health, economic and related benefits. Maybe you are already familiar with the trails, but you don't know the history and plan for these special places. Come find out! Hulls Gulch Reserve: The majority of this reserve was acquired through a citizen effort from 1991 to 1993, and many acres through citizen grassroots fundraising efforts. Home to the Jim Hall Foothills Learning Center, this reserve connects many other reserves and public lands. Join ICL and the City of Boise as we take a hike and talk about management solutions on this heavily used reserve!

March 1- Birding Series with Terry Rich: Spring Migration

From 9:00 – 10:00 a.m., bird books and binoculars are available to borrow. Free. No pre-registration required. Birds are beginning to move back to Boise after their winter holiday in the south, but each species is on its own schedule. We will be discussing what effects these varying migratory patterns and how climate change may play a role in the future. Thinking of taking a trip to the Oregon Coast? We'll talk about Terry will talk about shorebirds too!

March 8- Sunset Series: Living in a Fire-prone Landscape

From 7-8:30 p.m., fun, free, adult education. As the ever present vista of Table Rock's charred landscape keeps fire on our minds, Martha Brabec, City of Boise's new Restoration Specialist, will share Boise's fire history and our changing high desert landscape. We will discuss our increasingly dry environment, the spreading of invasive plants, and the challenges that face the foothills recovery from flames.

March 11- Second Saturday Series: Foothills Family Day- Fire Frenzy!

10 a.m. - 1 p.m. Free. Family friendly, drop in/no pre-registration needed. Please- no pets. Come learn about the science behind wild fires! Is wild fire good or bad? Join us as we learn why fire is important, but also the importance of reducing fire risk near our beloved city of Boise. We will have fire pan demonstrations, a Fire-Wise gardening station, crafts, and more!

March 16- Tour of the Reserves- A Hiking Series: Camel's Back Reserve

Pre-registration required! Please call (208) 345-6933 x16. All hikes are no more than 3 miles, free, and family friendly. From 4:30 - 6:30 p.m. Get to know your backyard as The Foothills Learning Center and Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are a growing and interconnected system that provides environmental, social, health, economic and related benefits. Maybe you are already familiar with the trails, but you don't know the history and plan for these special places. Come find out! Camel's Back Park and the land connected to it was acquired by the City of Boise in 1932 from Bernard Lemp. It is home to three trailheads which act as a starting point for some of the most popular Ridge to Rivers trails in the foothills. Come hear the history of Camel's Back and take a short walk with us!



Burrowing owl © Mike Morrison

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Multi-species Baseline Initiative Solves the Idaho Wood Frog Mystery

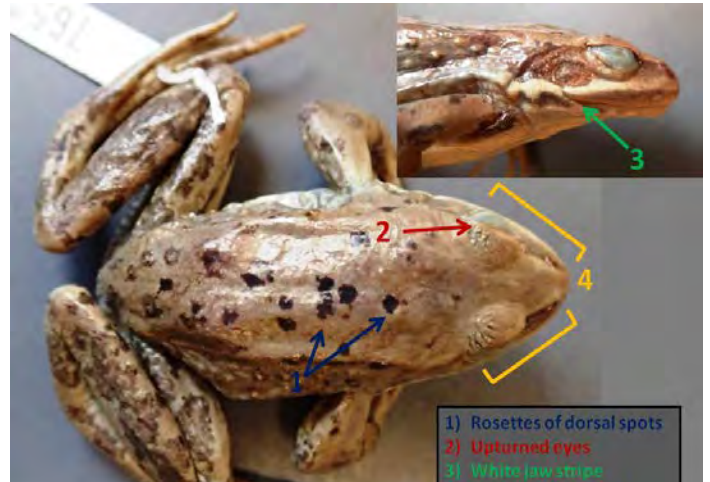
by Michael Lucid*,
Panhandle Region Wildlife Diversity Biologist, Idaho Department of Fish and Game

Wood frogs have captured the imagination of north Idaho naturalists for decades. And for good reason... with anti-freeze like blood this species is the only amphibian known to occur north of the arctic circle and lives on the extremes of the temperature range. Although it's a very common species throughout its North American range...until just recently we thought it was quite rare, and possibly in trouble, in Idaho.

In the 1950s a scientist published two short papers reporting he captured 2 wood frogs in the northern portion of the Idaho Panhandle. There were no other reports of this species until the 1970s when another researcher captured several frogs, which he identified as wood frogs, and submitted the specimens to be curated at the Los Angeles County Museum. These records led to decades of biologists and herpetologists scouring the waters of northern Idaho for wood frogs... including myself and about 500 other professional biologists and citizen scientists who worked together to implement the Multi-species Baseline Initiative (MBI).

From 2010-2014 the Multi-species Baseline Initiative conducted standardized surveys for 19 Species of Greatest Conservation Need (SGCN) listed in Idaho or Washington Washington State Wildlife Action Plans (SWAP) as "lacking essential information." We used this multi-taxa group of amphibians, forest carnivores, and terrestrial gastropods as the centerpiece of an inventory designed to collect data on baseline occurrence and micro-climatic associations for 182 species of animals and plants. We conducted surveys for terrestrial gastropods, pond breeding amphibians, and/or forest carnivores and their associates at 2,315 survey sites stratified within the cells. We co-located 1,169 micro-climate data loggers with wildlife survey sites where we collected 1-4 years of air or water temperature data. This fall we wrapped up our report on the 2010-14 field work.

The report shows how we changed the understanding of landscape level species occurrence for each of the 19 target SGCN. Vertebrates tended to be a little



One of the north Idaho's "wood frogs" archived at the LA County Museum. The characters used to re-classify it from wood frog (*Rana sylvatica*) to Columbia spotted frog (*Rana luteiventris*) are identified © IDFG

less common and most invertebrates tended to be much more common than we had thought when we began our surveys. And wood frogs... well it turns out wood frogs probably never even occurred in Idaho and were just on our species list as a case of mistaken identity. We requested a loan of the museum specimens and verified what we thought were wood frogs all those years, were just Columbia spotted frogs...which are common in northern Idaho.

Solving this mystery was important because we need to focus our conservation efforts on species that truly need them. The most important thing MBI demonstrated was that, before deciding where to implement conservation actions, the first thing we need to do is to take a step back and assess what we know and where we are. The path forward are long term multi-taxa monitoring programs that allow an inflow of information on species status. This will allow wildlife managers to make smart decisions on where and when we need to spend limited conservation dollars.

Species Spotlight

Great Gray Owl



Great gray owl © Mike Morrison

Harsh winters draw great gray owls to lower elevations in search of food and shelter. These owls are usually associated with mountain meadows in coniferous forests of pine or spruce, but they also use stands of larch, poplar, and aspen. Here are some other fun facts about great grays:

- Dense, fluffy plumage and long tail feathers make this owl appear much larger than it really is. Great grays only weigh two to three pounds, about the same as a barred owl.
- They are much more active in daytime than other owls and are usually seen hunting in evening or early morning.
- A great gray's hearing is acute enough to locate a mouse moving beneath the snow. When this happens, the owl swoops down from its perch and, folding its wings at the moment, dives feet first into the snow to grasp the luckless rodent in its talons.

WANTED

Your winter hummingbird sightings



© Heidi Ware

Because insects make up a large part of their diet, Anna's Hummingbirds can survive cold winter weather. Over the past decade, they have begun wintering in Idaho.

The IBO wants to study this phenomenon. By counting and tagging individuals, we will get accurate population information and track individuals over time.

More info at: <http://ibo.boisestate.edu/winter-hummers/>

Please contact us with any winter hummingbird sightings
IBO@boisestate.edu or 208-426-2223

We want to map *all* sightings, plus band birds if homeowners are interested. Don't forget, you can also record your sightings at eBird.org!



BOISE STATE UNIVERSITY
INTERMOUNTAIN BIRD OBSERVATORY

Thank You for Your Support!



Thank you to those who made direct donations, purchased or renewed a wildlife license plate, or let us know of a tax check-off donation between October 1- December 31, 2016.

Your contribution provides important funding for wildlife and habitat conservation in Idaho.

Hooded mergansers © Mike Morrison



Windows to Wildlife

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- Golden Eagle Audubon
- Idaho Department of Commerce & Labor
- Idaho Department of Fish and Game
- Idaho Department of Parks & Recreation
- Idaho Power
- Idaho Recreation and Tourism Initiative
- U.S. Bureau of Land Management
- U.S. Bureau of Reclamation
- U.S. Forest Service
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