

WINTER 2019

Windows to Wildlife

Your support at work in Idaho's landscapes



For Wildlife, Climate Change is All About Timing

BEESSO

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

or wildlife, climate change is all about timing. On a cool November day a group of volunteers met up at the Boundary-Smith Creek Wildlife Management Area (WMA) hoping to help a few species reset their clocks and give them an edge in adapting to our changing climate. We had spent the fall with a heavy equipment crew prepping sites and we had bare ground waiting for us. This was a big day - we would finally get to plant tree and shrub saplings along with the seeds the volunteers had so painstakingly collected for two years to help six Species of Greatest Conservation Need adapt to climate change. We were full of hope that amphibians, slugs, bears, and bumble bees would all benefit from the Idaho Panhandle Bees to Bears Climate Adaptation Project (B2B).

One of the toughest climate problems that faces wildlife is changing weather patterns and seasons. It is getting tougher for wildlife to find suitable habitat during different stages of the year. Bears are an easy example. Winters are getting shorter, bears are coming out of dens earlier, and hungry bears are more vulnerable because they are moving more. The B2B project is addressing this issue by providing more cover for the bears; 50,000 trees and shrubs are being planted. Hotter and drier summers are also going to be hard on other

wildlife like jumping slugs. Jumping slugs rely on cool, moist, dark, and woody habitat. Reforesting areas currently dominated by invasive plants like reed canary grass will help increase the availability of suitable habitat for slugs.

Amphibians will have to deal with hotter, drier summers as well. Not only will the water they depend on for breeding dry up earlier, but the new conditions favor threats like nonnative American bullfrogs. There's a loophole though. Native amphibians, like Western toads and Northern leopard frogs, complete their breeding cycle in just one season. Bullfrog tadpoles, however, can take up to four years to metamorph into fully formed frogs. The solution? Building ephemeral wetlands that dry up every year. We hope that this will disallow bullfrog tadpoles from maturing because the tadpoles will freeze during the winter. Native amphibians will then have a safe haven to thrive.

Ephemeral wetlands and reforestation are tried and true conservation methods. The most exciting part of B2B is something brand new. Bumble bees need a steady food source through

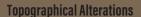


the spring and summer, but shorter winters plus hotter, drier summers are changing when plants bloom. We used an experimental technique called "topographic alteration" to build cool air refugia (CAR) for bumble bees. The idea is to build hills that create shade and then plant those hills with trees and wildflowers. This will create micro-sites with different temperatures, moisture, and sunlight. These CAR will then encourage plants of the same species to bloom during different windows and extend the amount of time food is available to bumble bees. We designed and built three different types of CAR which we plan to monitor over time. The monitoring will allow us to determine which designs work best for bees and improve future projects.

Our focus on such a wide array of species allows us to take more of an ecosystem approach than just a single species project would have allowed. More trees, water, flowers, and forbs on the ground aren't just good for the species in our grants. They make the WMA a better place for waterfowl, big game, song birds, furbearers, and upland game too.



Tree-Shrub Plot Hummock CAR Ephemeral Pond Linear CAR Control CAR Curvilinear CAR



(top) Project area of the Bees to Bears Climate Adaptation Project; (left) Drone footage of the Smith Creek restoration site which features each type of restoration tool; (middle left) Putting the finishing touches on the last cool air refugia (CAR); (bottom left) Completed curvilinear CAR; (below) Volunteers spread seed; and (bottom right) plant trees on the curvilinear cool air refugia. Recent snow has been retained on the north face of the constructed mounds while south-facing slopes have melted out. This shows there is already a change in temperature across the site and gives reserachers the hope that the CARs will work.

All photos by IDFG



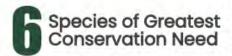












Volunteers 248

1310 Volunteer Hours

Trees & shrubs planted



3/4 mile of a ephemeral stream restored



4 ephemeral ponds created



47 species of native wildflower seed collected and planted

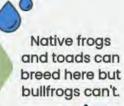


CHALLENGE: Bumble bees need a steady food source but earlier and drier summers cause inconsistencies with wildflower bloom time.



SOLUTION: Build hills that create shade and plant those hills with trees and wildflowers that bloom during different times thus creating more food supply for bees.

Ephemeral wetlands are depressions that hold water during spring and early summer.





Benefits For All Wildlife

What's good for bees and bears is good for waterfowl, big game, songbirds, and other wildlife too!



Non-native



bullfrogs removed

News from the Field

Idaho Birding Trail 2.0

by Deniz Aygen*, Watchable Wildlife Biologist, Idaho Department of Fish and Game

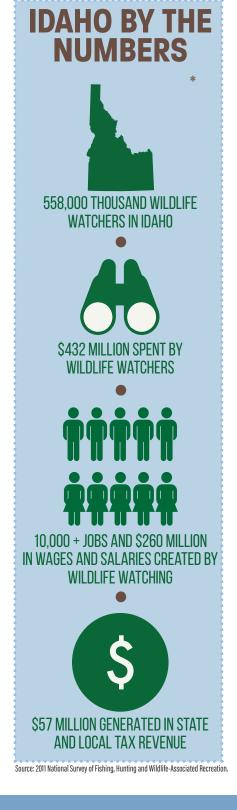
Wildlife viewing enthusiasts will find it easier to locate birds in Idaho thanks to the long-anticipated update to the Idaho Birding Trail. Launched almost 15 years ago, this auto-driven way to wander deep into Idaho's rural communities and along backcountry roads, was created as a tourism initiative to promote outdoor recreational opportunities, provide education and an increased awareness of the state's important wildlife resources, and create a diversified economic income for rural communities. A state house resolution in 2006 recognized the trail as the official state birding trail.

Updates include:

- New artwork featuring Idaho's state bird, the Mountain Bluebird, and three Species of Greatest Conservation Need Lewis's Woodpecker, Cassia Crossbill, and White-faced Ibis.
- Over 250 sites to visit; up from 175 sites.
- Four regional foldout guides, available to the public free of charge, at all Idaho Department of Fish and Game regional offices.
- Revised site directions include GPS coordinates and eBird information.
- Easier to read regional and city maps.
- Information about the Cassia Crossbill Idaho's only endemic bird species!

For more information about the trail, visit **idahobirdingtrail.com**. To get your free copy of the regional brochures, visit your local Idaho Department of Fish and Game office.





On the Trail

White-faced Ibis (left) can be seen at various places along the Idaho Birding Trail, including Market Lake Wildlife Management Area (WMA) in eastern Idaho. A new viewing blind at the WMA provides visitors with easy access for watching (middle). With over 250 sites, the trail is a great place to discover a new area to explore and watch wildlife (right).







Bird IDAHO

Your statewide birding adventure awaits



idahobirdingtrail.com

Conservation Corner

New Study Finds U.S. and Canada Have Lost More Than One in Four Birds in the Past 50 Years

Data show that since 1970, the U.S. and Canada have lost nearly 3 billion birds, a massive reduction in abundance involving hundreds of species, from beloved backyard songbirds to long-distance migrants.

Media Contact: Jordan Rutter, ABC Director of Public Relations*, 202-888-7472 | jerutter@abcbirds.org

(Washington, D.C., September 19, 2019) A study published today in the journal *Science* reveals that since 1970, bird populations in the United States and Canada have declined by 29 percent, or almost 3 billion birds, signaling a widespread ecological crisis. The results show tremendous losses across diverse groups of birds and habitats — from iconic songsters such as meadowlarks to long-distance migrants such as swallows and backyard birds including sparrows.

"Multiple, independent lines of evidence show a massive reduction in the abundance of birds," said Ken Rosenberg, the study's lead author and a senior scientist at the Cornell Lab of Ornithology and American Bird Conservancy. "We expected to see continuing

declines of threatened species. But for the first time, the results also showed pervasive losses among common birds across all habitats, including backyard birds."

The study notes that birds are indicators of environmental health, signaling that natural systems across the U.S. and Canada are now being so severely impacted by human activities that they no longer support the same robust wildlife populations.

The findings show that of nearly 3 billion birds lost, 90 percent belong to 12 bird families, including sparrows, warblers, finches, and swallows — common, widespread species that play influential roles in food webs and ecosystem functioning, from seed dispersal to pest control.

Among the steep declines noted:

- Grassland birds are especially hard hit, with a 53-percent reduction in population — more than 720 million birds since 1970.
- Shorebirds, most of which frequent sensitive coastal habitats, were already at dangerously low numbers and have lost more than one-third of their population.
- The volume of spring migration, measured by radar in the night skies, has dropped by 14 percent in just the past decade.

2 billion birds gone since 1970

-1,000,000,000

-2,000,000,000

-3,000,000,000

1970 1980 1990 2000 2010

Councy of the Convell Lisb of Omithology, Source Science, 2019

In less than a single human lifetime, 2.9 billion breeding adult birds have been lost from the United States and Canada, including birds in every ecosystem. Numbers have plummeted even among familiar species.

"These data are consistent with what we're seeing elsewhere with other taxa showing massive declines,

including insects and amphibians," said coauthor Peter Marra, senior scientist emeritus and former head of the Smithsonian Migratory Bird Center and now director of the Georgetown Environment Initiative at Georgetown University. "It's imperative to address immediate and ongoing threats, both because the domino effects can lead to the decay of ecosystems that humans depend on for our own health and livelihoods — and because people all over the world cherish birds in their own right. Can you imagine a world without birdsong?"

Evidence for the declines emerged from detection of migratory birds in the air from 143 NEXRAD weather radar stations across the continent in a period spanning over 10 years, as well as from nearly 50 years of data collected through multiple monitoring efforts on the ground.

"Citizen-science participants contributed critical scientific data to show the international scale of losses of birds," said coauthor John Sauer of the U.S. Geological Survey (USGS). "Our results also provide insights into actions we can take to reverse the declines." The analysis included citizen-science data from the North American Breeding Bird Survey coordinated by the USGS and the Canadian Wildlife Service — the main sources of long-term, large-scale population data for North American birds — the Audubon Christmas Bird Count, and Manomet's International Shorebird Survey.

Although the study did not analyze the causes of declines, it noted that the steep drop in North American birds parallels

the losses of birds elsewhere in the world, suggesting multiple interacting causes that reduce breeding success and increase mortality. It noted that the largest factor driving these declines is likely the widespread loss and degradation of habitat, especially due to agricultural intensification and urbanization.

Other studies have documented mortality from predation by free-roaming domestic cats; collisions with glass, buildings, and other structures; and pervasive use of pesticides associated with widespread declines in insects, an essential food source for birds. Climate change is expected to compound these challenges by altering habitats and threatening plant communities that birds need to survive. More research is needed to pinpoint primary causes for declines in individual species.

"The story is not over," said coauthor Michael Parr, president of American Bird Conservancy. "There are so many ways to help save birds. Some require policy decisions such as strengthening the Migratory Bird Treaty Act. We can also work to ban harmful pesticides and properly fund effective bird conservation

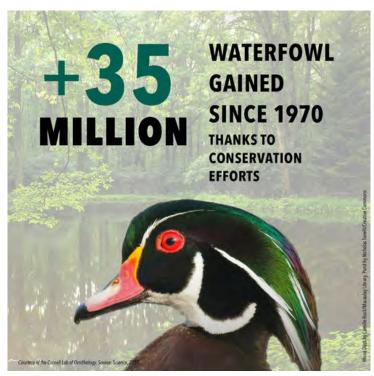
programs. Each of us can make a difference with everyday actions that together can save the lives of millions of birds — actions like making windows safer for birds, keeping cats indoors, and protecting habitat."

The study also documents a few promising rebounds resulting from galvanized human efforts. Waterfowl (ducks, geese, and swans) have made a remarkable recovery over the past 50 years, made possible by investments in conservation by hunters and billions of dollars of government funding for wetland protection and restoration. Raptors such as the Bald Eagle have also made spectacular comebacks since the 1970s, after the harmful pesticide DDT was banned and recovery efforts through endangered species legislation in the U.S. and Canada provided critical protection.

"It's a wake-up call that we've lost more than a quarter of our birds in the U.S. and Canada," said coauthor Adam Smith from Environment and Climate Change Canada. "But the crisis reaches far beyond our individual borders. Many of the birds that breed in Canadian backyards migrate through or spend the winter in the U.S. and places farther south — from Mexico and the Caribbean to Central and South America. What our birds need now is an historic, hemispheric effort that unites people and organizations with one common goal: bringing our birds back."



Each Outdoor Cat Plays a Part Predation by domestic cats is the number-one direct, human-caused threat to birds in the United States and Canada. In the United States alone, outdoor cats kill approximately 2.4 billion birds every year. Although this number may unbelievable, it represents the combined impact of tens of millions of outdoor cats (source: American Bird Conservancy).



SEVEN SIMPLE ACTIONS TO HELP BIRDS



Birds are in trouble, but you can help. Here are seven ways to make your home and lifestyle bird friendly.

1. Make Windows Safer, Day and Night

The challenge: Up to 1 billion birds are estimated to die each year after hitting windows in the United States alone.

The cause: By day, birds perceive reflections in glass as habitat they can fly into. By night, migratory birds drawn in by city lights are at high risk of colliding with buildings.

These simple steps save birds: On the outside of the window, install screens or break up reflections—using film, paint, or Acopian BirdSavers or other string spaced no more than two inches high or two inches wide.

Take it further: Work with businesses or public buildings to offer a contest for creative "window mural" designs that make windows safer for birds. Support legislation for bird-friendly building designs. Start a lights-out campaign in your city.

Get started today:

Quick, affordable ways to keep birds from hitting windows Help pass the Bird-Safe Buildings Act

2. Keep Cats Indoors

The challenge: Cats are estimated to kill more than 2.4 billion birds annually in the U.S. This is the #1 human-caused reason for the loss of birds, aside from habitat loss.

The cause: Cats can make great pets, but more than 100 million feral and pet cats now roam in the United States. These nonnative predators instinctively hunt and kill birds even when well fed.

Solutions that are good for cats and birds: Save birds and keep cats healthy by keeping cats indoors or creating an outdoor "catio." You can also train your cat to walk on a leash.

Take it further: Speak out about the impacts of feral cat colonies in your neighborhood and on public lands. Unowned cats' lives may be as short as two years because of disease and hardship, and they are responsible for 69% of birds killed by cats in the United States.

Get started today:

Six ways to keep your indoor cats happy

3. Reduce Lawn, Plant Natives

The challenge: Birds have fewer places to safely rest during migration and to raise their young: More than 10 million acres of land in the United States were converted to developed land from 1982 to 1997.

The cause: Lawns and pavement don't offer enough food or shelter for many birds and other wildlife. With more than 40 million acres of lawn in the U.S. alone, there's huge potential to support wildlife by replacing lawns with native plantings.

Take it further: Add native plants and watch birds come in. Native plants add interest and beauty to your yard and neighborhood, and provide shelter and nesting areas for birds. The nectar, seeds, berries, and insects will sustain birds and diverse wildlife.

Get started today:

Find out which native plants are best for your area

4. Avoid Pesticides

The challenge: More than 1 billion pounds of pesticides are applied in the United States each year. The nation's most widely used insecticides, called neonicotinoids or "neonics," are lethal to birds and to the insects that birds consume. Common weed killers used around homes, such as 2, 4-D and glyphosate (used in Roundup), can be toxic to wildlife, and glyphosate has been declared a probable human carcinogen.

The cause: Pesticides that are toxic to birds can harm them directly through contact, or if they eat contaminated seeds or prey. Pesticides can also harm birds indirectly by reducing the number of insects that birds need to survive.

A healthy choice for you, your family, and birds: Consider purchasing organic food. Nearly 70% of produce sold in the U.S. contains pesticides. Reduce pesticides around your home and garden.

Take it further: Urge your Representative to cosponsor the Saving America's Pollinators Act. The bill, H.R. 1337, requires the Environmental Protection Agency (EPA) to suspend registration of neonics.

Get started today:

Check out the Shopper's Guide to Pesticides in Produce Send a message to protect birds and bees from neonics

5. Drink Bird-Friendly Coffee

The challenge: Three-quarters of the world's coffee farms grow their plants in the sun, destroying forests that birds and other wildlife need for food and shelter. Sun-grown coffee also often requires using environmentally harmful pesticides and fertilizers. On the other hand, shade-grown coffee preserves a forest canopy that helps migratory birds survive the winter.

The cause: Too few consumers are aware of the problems of sun coffee. Those who are aware may be reluctant to pay more for environmentally sustainable coffee.

Insist on shade-grown coffee that's good for birds: It's a winwin-win: it's delicious, economically beneficial to coffee farmers, and helps more than 42 species of North American migratory songbirds that winter in coffee plantations, including orioles, warblers, and thrushes.

Take it further: Look for Bird-Friendly coffee, a certification from the Smithsonian Migratory Bird Center that also

includes organic and fair trade standards. Educate coffee shops and grocery stores about shade-grown coffee.

Get started today:

Find out where to buy Bird-Friendly coffee

6. Protect Our Planet from Plastics

The challenge: It's estimated that 4,900 million metric tons of plastic have accumulated in landfills and in our environment worldwide, polluting our oceans and harming wildlife such as seabirds, whales, and turtles that mistakenly eat plastic, or become entangled in it.

The cause: Plastic takes more than 400 years to degrade, and 91% of plastics created are not recycled. Studies show that at least 80 seabird species ingest plastic, mistaking it for food. Cigarette lighters, toothbrushes, and other trash have been found in the stomachs of dead albatrosses.

Reduce your use of plastics: Avoid single-use plastics including bags, bottles, wraps, and disposable utensils. It's far better to choose reusable items, but if you do have disposable plastic, be sure to recycle it.

Take it further: Advocate for bans of plastic bags, styrofoam, and straws. Encourage stores to offer incentives for reusable bags, and ask restaurants and other businesses to phase out single-use plastics.

Get started today:

Eight easy ways to reduce your plastic waste

7. Watch Birds, Share What You See

The challenge: The world's most abundant bird, the Passenger Pigeon, went extinct, and people didn't realize how quickly it was vanishing until it was too late. Monitoring birds is essential to help protect them, but tracking the health of the world's 10,000 bird species is an immense challenge.

The cause: To understand how birds are faring, scientists need hundreds of thousands of people to report what they're seeing in backyards, neighborhoods, and wild places around the world. Without this information, scientists will not have enough timely data to show where and when birds are declining around the world.

Enjoy birds while helping science and conservation: Join a project such as eBird, Project FeederWatch, a Christmas Bird Count, or a Breeding Bird Survey to record your observations. Your contributions will provide valuable information to show where birds are thriving—and where they need our help.

Take it further: Mobilize others by organizing school groups or leading bird walks and submitting your counts to eBird.org. Support organizations that coordinate monitoring projects.

Get started today:

Find a project that matches your interests

IDAHO NONGAME WILDLIFE FUND



Winter Wildlife Events

Boise WaterShed

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

bee.cityofboise.org/watershed/events/calendar-of-events

WATERSHED WEEKENDS: 3rd Saturday of each month, 10AM to 1PM

Free family fun the third Saturday of each month 10 AM — 1 PM. A water renewal facility tour will be held at 11:30 a.m. (weather-dependent), ages 4 and up, closed-toed shoes required, no strollers please.

January 18 - Our Prehistoric Watershed

10am - 1pm; View fossils and meet local paleontologists and geologists while participating in hands-on activities to learn about Idaho's past - including erupting volcanoes and casting a fossil dinosaur claw!

February 15 - Random Acts of Kindness

10am - 1pm; Join us as we celebrate National Random Acts of Kindness Day. Make a pet toy for animals at the Idaho Humane Society, donate food, clothing and diapers for local homeless shelters. Learn more about Boise Kind, and make a special card for deployed service men and women.

March 21 - Spring Madness

10am - 1pm; Let's celebrate spring! The Boise WaterShed will have spring themed games and activities. Make flower themed crafts and participate in our unofficial March Madness bracket of fluffy animals. There will be spring giveaways and more!

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 Wolf 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.



Craters of the Moon National Monument and Preserve

18 miles West of Arco on Hwy 20/26/93; (208) 527-1335 nps.gov/crmo/index.htm

January 11, 19, 25 and February 1,8, 15, 22, and 29 - Snowshoe Walk

1pm - 4pm; Explore a cooler side of Craters of the Moon on a Ranger-guided snowshoe walk. Look for tracks and learn about winter wildlife on this 1.5-mile trek. Snowshoes are available for use (donations accepted). Depending on conditions, snowshoeing can be a strenuous activity that may not be suitable for younger children. Group size is limited to 30. Sign up at visitor center on the day of the walk.

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; nps.gov/crmo/planyourvisit/winter-activities.htm

Jim Hall Foothills Learning Center

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

bee.cityofboise.org/foothills/events/calendar-of-events

BOISE BIRDING SERIES: 1st Wednesdays, 9AM to 10AM

This free birding program is great for experienced and novice birders alike. Terry Rich, our local ornithologist, provides information and tips on birds in the Boise area and beyond. Come to one or all sessions. Bird books and binoculars are available to borrow. No registration necessary.

January 8 - TBD

February 5 - What is the Overall State of Birds Across North America?

The size of the population of a species is one of the factors used to evaluate the species' vulnerability. Small populations are more vulnerable. Terry will talk about how bird populations are estimated, and will look at the population sizes of a number of species, both common and rare.

March 4 - Spring Migration

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 different migratory patterns and how climate change is, and may, play a role.

FOOTHILLS FAMILY DAYS: 2nd Saturdays, 10AM to 1PM

Each month we open our doors for this free, family friendly program with activities, crafts, and interpretive stations. Come and go as you please.

January 11 - Snow and Water

Join us to learn about the chemistry behind snow and how most of our water in Idaho comes from snow! Indoor and outdoor activities.

March 14 - Birds of Prey Day

Join us to learn about local Birds of Prey such as owls, hawk, eagles and more! Live bird demonstrations, crafts and other activities.

MK Nature Center

600 S. Walnut Street, Boise; (208) 334-2225 idfg.idaho.gov/site/mk-nature-center

WEEKEND WILDLIFE NATURE ACTIVITIES: 2nd Sundays, 1PM to 4PM

Free and open to the public (donations encouraged).

January 12 - Wild Canines of Idaho

1pm - 4pm; Free (donations encouraged); Come learn about wolves, coyotes, and foxes...they three wild dogs that make Idaho their home. How are they the same? How are they different? Where do they live? Presentations at 1 pm, 1:30 pm and 2 pm.

February 9 - Wildlife Valentines

1pm - 4pm; Do you LOVE wildlife? Make wildlife valentines for your whole class! \$5 for a set of 30 valentines. You make the wildlife-themed cards...we provide the materials, workspace, patterns and examples. Limit 50 kids. Register at sara.focht@idfg.idaho.gov. Your valentines will be WILD!

March 8 - Wildlife Scientist

1pm - 4pm; Free (donations encouraged); Learn about how wildlife professionals study animals. Practice observing animal behavior, collecting data, using scientific tools, and more. Games and activities for ages 5 and up.











Thank You for Your Support!



Windows to Wildlife

Wildlife Diversity Program PO Box 25 Boise, ID 83707-0025

Forwarding Service Requested

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To submit an article, obtain a subscription, or notify us of address change, contact the Editor at the above address.

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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

U.S. Fish & Wildlife Service