

Windows to Wildlife



A bee, a crocus flower, and pollen © (CC-BY-SA) morganglines on Flickr CC.

For the Bees: Planting a Pollinator-Friendly Garden

Creating an oasis in your own backyard

Written by Daniel Murphy*
Native Plant Horticulture Technician, Idaho Botanical Garden

There is mounting concern regarding declines in pollinator populations. Numerous species are experiencing significant losses – some are now threatened with extinction while others have disappeared altogether.

The honey bee is probably the most familiar pollinator, and its plight is well documented. According to a survey by the Treasure Valley Beekeepers Club, 312 honey bee colonies were being managed in the valley in fall of 2012. By spring of 2013, that number was down by half. Club president, Chad Dickinson, attributed much of this loss to an unusually cold winter and mismanagement by beekeepers. These issues combined with numerous others resulted in a tough year for local honey bees.

Habitat degradation and loss, the spread of pests and diseases, extensive pesticide use, and climate change all play a role in pollinator decline. With 75% of all flowering plants requiring pollinators to set seed or fruit – 1/3 of which are human food sources – it is imperative that we address the threats that pollinators face.

And it isn't just honey bees that are in danger – virtually all pollinators are threatened. North America is home to thousands of pollinating insects, including numerous species of bees, butterflies, moths, wasps, flies, and beetles... all with varying habitat and forage needs. Many of these native insects, including the blue orchard bee and the eastern bumble bee, are just as important for agricultural pollination as the non-native honey bee.

The good news is that all pollinators (native or non-native) can benefit from similar conservation strategies. Creating pollinator friendly habitats in our communities that are free from pesticides and include diverse food sources and nesting sites will help ensure the health and survival of these beneficial organisms.

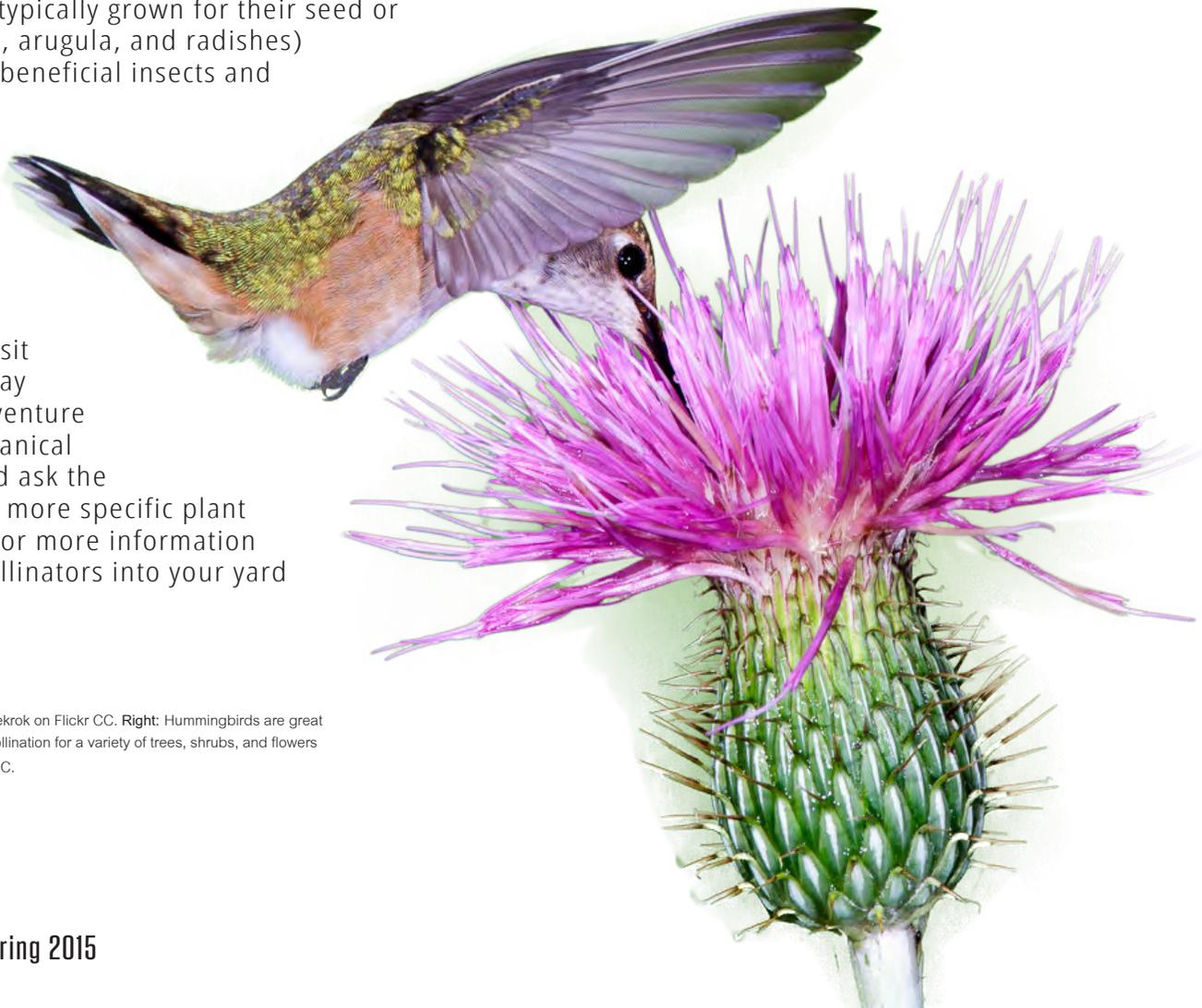
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Consider dedicating a portion of your yard to pollinator habitat. The following guidelines will help get you started.

- ✿ **Select a Sunny Location:** Full sun helps keep pollinators active.
- ✿ **Season Long Blooms:** Select at least 3 plants that flower in each of the 3 blooming periods (spring, summer, and fall). Early spring bloomers and fall bloomers are especially important.
- ✿ **Plant in Clusters:** On each foraging trip, bees visit the flowers of a single plant species, so placing each species in small clumps will help them out.
- ✿ **Diversity is Key:** Plants in your garden should have varying heights and growth habits. Not only should they bloom at different times but they should also have flowers of various colors, shapes, and sizes. This will help attract a wide range of pollinators.
- ✿ **Provide Nesting Sites:** A warm season bunchgrass, such as little bluestem, will provide habitat for bumble bees. A small section of bare ground is important for ground nesting bees. Bundles of hollow stems, such as bamboo or elderberry, provide nesting sites for mason bees.
- ✿ **Include a Water Source:** Pollinators need water, too. Include a birdbath or something with a ledge for pollinators to perch and drink.
- ✿ **Plant Recommendations:** Native plants are typically the best for native pollinators, especially those that require specific plants for food and habitat. When selecting non-native plants, choose old varieties when possible since some modern varieties and hybrids can be poor sources of nectar. Casey O'Leary of Earthly Delights Farm, an urban farm and seed company in Boise, suggests purple and blue flowers, such as larkspur, borage, and bee's friend, for bumble bees, and small white flowers, such as yarrow and plants in the carrot family, for solitary bees. She has also found that native buckwheats (*Eriogonum spp.*) are excellent at attracting pollinators. On her farm, O'Leary allows vegetable crops not typically grown for their seed or fruit (such as lettuce, arugula, and radishes) to flower, attracting beneficial insects and providing additional nectar sources for foraging pollinators.

To find more ideas for designing and planting your pollinator garden, visit the Pollinator Pathway in the Children's Adventure Garden at Idaho Botanical Garden in Boise, and ask the horticulture staff for more specific plant recommendations. For more information on inviting native pollinators into your yard visit www.xerces.org



Top photo: Larkspur © (CC-BY-SA) Meekrok on Flickr CC. Right: Hummingbirds are great pollinators and are a major source of pollination for a variety of trees, shrubs, and flowers © (CC-BY-SA) Tom Barnwell on Flickr CC.

Pollinator Friendly Practices

Use native plants since they are adapted to the local climate and soils, and local pollinators are adapted to them.

Plant a variety of flowers to bloom continually from early spring to early fall.

Provide a variety of flower shapes and colors since different pollinators are attracted to different types of flowers.

Avoid modern hybrids, especially those with "doubled" flowers, since pollen, nectar, and scent can be lost in the cultivation process.

Build a bee condo or leave dead trees or limbs to create nesting habitat for bees.

Provide bare ground or a shallow bird bath filled with soil, sprinkled with sea salt and kept moist, to create a source of water and minerals for pollinators.

Include plants for caterpillars. They are surprisingly fussy eaters and require particular "host" plants. Caterpillars eat the foliage of their host plants, but the average gardener won't notice the damage until at least 10% of the leaves are affected.

Help pollinators find the plants they need by planting them in clumps rather than singly. Clustering plants also shortens the distances that pollinators need to travel.

Avoid using pesticides if at all possible. If you want butterflies, you need caterpillars (and the nibbled leaves that go with them)!



Reprinted from http://libcloud.s3.amazonaws.com/93/3c/e/3115/Gardeners_beware_report.pdf

GARDENERS BEWARE:

Bee-Toxic Pesticides Found in "Bee-Friendly" Plants Sold at Garden Centers Nationwide

Insecticide Product Name	Active Ingredient(s)
ALIAS	Imidacloprid
ALLECTUS	Imidacloprid, bifenthrin
ALOFT	Clothianidin, bifenthrin
ARENA	Clothianidin
ASSAIL	Acetamiprid
ATERA	Imidacloprid, bifenthrin
AURA	Imidacloprid
BITHOR	Imidacloprid, bifenthrin
BOUNTY	Imidacloprid
CARAVAN	Thiamethoxam, azoxystrobin
CORETECT	Imidacloprid
DERBY	Thiamethoxam, lambda-cyhalothrin
DINO	Dinotefuran
DOMINION	Imidacloprid
EQUIL ADONIS	Imidacloprid
FLAGSHIP	Thiamethoxam
FLOWER, ROSE & SHRUB CARE	Clothianidin, imidacloprid, tebuconazole
GAUCHO	Imidacloprid
GRUB-NO-MORE	Imidacloprid
GRUBEX	Imidacloprid
GRUBOUT	Imidacloprid
HAWK	Imidacloprid
I MAXXPRO	Imidacloprid
IMA-JET	Imidacloprid
IMI INSECTICIDE	Imidacloprid
IMID-BIFEN	Imidacloprid, bifenthrin
IMIDA-TEB GARDEN SC	Imidacloprid, tebuconazole
IMIDAPRO	Imidacloprid

Insecticide Product Name	Active Ingredient(s)
IMIGOLD	Imidacloprid
LADA	Imidacloprid
LANCER GOLD	Imidacloprid, acephate
MALICE	Imidacloprid
MALLET	Imidacloprid
MANTRA	Imidacloprid
MARATHON	Imidacloprid
MERIDIAN	Thiamethoxam
MERIT	Imidacloprid
NUPRID	Imidacloprid
OPTIGARD FLEX	Thiamethoxam
PASADA	Imidacloprid
POINTER INSECTICIDE	Imidacloprid
PRONTO	Imidacloprid
PROTHOR	Imidacloprid
ROTAM	Imidacloprid
SAFARI	Dinotefuran
SAGACITY	Dinotefuran
SCORPION	Dinotefuran
STARKLE	Dinotefuran
TANDEM	Thiamethoxam, lambda-cyhalothrin
TRIMAX	Imidacloprid
TRIPLE CROWN INSECTICIDE	Imidacloprid, bifenthrin, zeta-cypermethrin
TRISTAR	Acetamiprid
TURFTHOR	Imidacloprid
WRANGLER	Imidacloprid
XYTECT	Imidacloprid



Monarch Butterfly Monitoring Workshop



**Friday, June 19th, 1:00 pm – 5:00 pm and
Saturday, June 20th, 9:15 am – 4:15 pm**

Boise Main Public Library, 715 S. Capitol Blvd., Boise, ID

North American monarch butterflies need your help!

The University of Minnesota Monarch Lab and Monarch Joint Venture present a two-day monarch monitoring workshop focusing on western monarch populations and citizen science monitoring. The workshop will cover basic monarch biology and the monarch annual cycle, and will introduce monarch citizen science projects. At this workshop you will engage in hands-on activities, including visiting a milkweed site to learn Monarch Larva Monitoring Project protocols.

Instructors include experts in the field of monarch study from Monarch Joint Venture, University of Minnesota Monarch Lab, and Xerces Society for Invertebrate Conservation

Register Now!

Register on-line at <http://www.monarchjointventure.org/news-events/events/>. Registration fee is \$25/participant. Registration includes all instruction materials, lunch on June 20th, and transportation to our field monitoring site. Snacks and beverages will be provided throughout the workshop. The workshop is limited to 50 participants, so register early to reserve your spot!

A block of rooms has been reserved at the [Safari Inn Downtown](#), 1070 Grove St., Boise, ID, (208) 344-6556 or 1-800-541-6556; info@safariinndowntown.com. Be sure to tell them you are with the Monarch Butterfly Workshop to receive the special rate of \$87/night.

Questions? Contact Wendy Caldwell at monarchs@monarchjointventure.org or Beth Waterbury at beth.waterbury@idfg.idaho.gov.

Sponsors



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Spring Wildlife Events

Boise WaterShed

11818 West Joplin Rd., Boise; (208) 489-1284
www.cityofboise.org/Bee/WaterShed/Home/index.aspx

April 18 - WaterShed Weekend: Wetlands Discovery

Meet us at the Hyatt Hidden Lakes Reserve between 10:00 am and 1:00 pm to discover our urban wetlands! Note: Boise WaterShed is closed. Discover this unique place that rests in Boise's backyard! Talk to Golden Eagle Audubon Society members and learn about 50+ bird species found in the wetlands. Meet artist Mark Baltes who designed the art installation "HaBATat" for bats! Explore the world of bats with the "Bat Trunk". Take a hike to learn about wetlands and wetland wildlife at various booths. So much to see in a small place! FREE admission! No registration required. Held at Hyatt Hidden Lakes Reserve, 5301 N. Maple Grove Road, Boise.

Foothills Learning Center

3188 Sunset Peak Rd., Boise; (208) 514-3755
www.cityofboise.org/Bee/Foothills/index.aspx

April 1 - Birding Series with Terry Rich: Bird Song

9:00 to 10:00 am. Free! Come to one or all sessions. Bird books and binoculars are available. Terry will share some tips to help you tell one bird from another by its song. He'll also have some suggestions about tools and resources that can help you become an avian musicologist!

April 11 - Second Saturday Series: Resident Raptors and Migrating Songbirds

10:00am to 2pm. Free! No registration necessary. Please no pets. Join us for this favorite FLC program celebrating our resident great horned owls, red-tailed and Cooper's hawks, American kestrels and returning migratory songbird species! We're happy to have Jessie Sherburne return to share her extensive knowledge about raptors. Terry Rich who's been leading our year-long birding series, will be sharing his wisdom about the many birds returning to Boise - some that will stay through summer, and others that stop only briefly as they migrate through. Lots of fun hands-on activities including our ever-popular face-painting, "human" banding station and more! We'll have binoculars to loan and spotting scopes set up on the great horned owlets if they make an appearance.

May 6 - Birding Series with Terry Rich: Bird Identification

9:00 to 10:00 am. Free! No registration necessary. Come to one or all sessions. Bird books and binoculars are available to borrow. These next three meetings will focus on identifying the most common birds coming through Hulls' Gulch. There will be a short talk but most of the time will be spent outside birding. The third meeting may be at Bogus Basin. Please confirm with the FLC about the meeting location for July.

June 3 - Birding Series with Terry Rich: Bird Identification

9:00 to 10:00 am. Free! No registration necessary. Come to one or all sessions. Bird books and binoculars are available to borrow. These next three meetings will focus on identifying the most common birds coming through Hulls' Gulch. There will be a short talk but most of the time will be spent outside birding. The third meeting may be at Bogus Basin. Please confirm with the FLC about the meeting location for July.

June 13 - Second Saturday Series: Flocks (of sheep) in the Foothills!

10:00am to 2pm. Free! No registration necessary. Please no pets. Join us as we celebrate five years of partnering with the Idaho Rangeland Resource Commission to highlight sheep and their caretakers. We'll have sheep on site and you can watch their four-footed "guards" (sheepdogs) corralling these wandering woolies! Sink your fingers into lanolin filled wool and learn about the many different products that come from sheep. Artists and craft persons will be offering their wares for sale and there will be fun hands-on activities for the kids. Everyone's toes will be doing some happy tapping as they listen to tunes from Gary & Cindy Braun. If you want to enjoy the BBQ lamb lunch and other treats bring your wallet. Parking is limited. PLEASE TAKE OUR FREE SHUTTLES to the FLC for Sheep in the Foothills! Shuttle Location: Fort Boise Community Center, 700 Robbins Road (behind the Elks Rehab Center in downtown Boise). Schedule: Shuttles will leave Fort Boise every half hour starting at 10:00 am (10am, 10:30am, 11am, 11:30am, 12 noon) Last shuttle leaves at 12 noon.

13th Annual Dubois Grouse Days- April 11, 2015

Dubois, Idaho

The small town of Dubois lies in the heart of the high sagebrush desert in Eastern Idaho, just south of the Continental Divide and the Centennial Mountains. This area contains some of the best Greater Sage-Grouse habitat in Idaho. Every spring, sage-grouse congregate on traditional breeding sites (leks). Males attract females with an incredible display. Do not miss this once-in-a-lifetime opportunity to view and photograph this amazing courtship ritual!

To sign up, visit: http://grousedays.org/uploads/Brochure_DGD_2015.pdf

DIY Insect Hotel

by Sara Focht*, Wildlife Educator, IDFG- MK Nature Center

Why build an insect hotel?

All animals need food, water, shelter and space. Building an insect hotel can provide native insects much more than needed shelter for laying eggs and storing food. An insect hotel can come in many shapes and sizes. They can be simple, artistic, complicated, huge, beautiful works of art or messy piles. There is probably no one right way to do it, but depending on what types of insects you are trying to attract, different materials can be used. I personally like native solitary bees. They get forgotten with the European charismatic honey bee always buzzing around. Some native solitary bees are ground nesting, but others use holes in wood to lay eggs in a series of cells with stored food for the insect to eat when they hatch. Building an insect hotel, along with planting native plants, and eliminating pesticides will work together to benefit native insects in your area.

How to build an insect hotel

Insect hotels can be built in a variety of sizes and shapes and with different materials. Part of the fun is to be creative and try new things! There are a few guidelines to keep in mind to maximize the success of your hotel being booked all year round!

- * Find or make a frame.
- * Do not use any lumber or materials that are treated with chemicals (pressure treated, pallet wood, railroad ties).
- * Drill holes in a variety of sizes. Solitary bees like 3/16th inch holes at a 5-6 inch depth. Blue orchard bees like tunnels 5/16 inch in diameter and 6 inches deep. A few bees need holes 1/8 inch in diameter. Replace tunnels every 2 years to prevent disease and parasite build up.
- * Don't forget to landscape your hotel. A mound of dirt and a mud puddle nearby will help residents have the supplies they need to build walls in the holes you have drilled.
- * A course wire screen over the hotel will help keep small materials in place and discourage birds from ravaging.

(continued on next page)





Where to place your insect hotel

If your hotel is mostly designed for bees (lots of drilled holes), a sunny warm location might be best, as that is what most bees prefer. Be aware that bees need proximity to flowers...a lot of flowers all through the season. Typically each female can lay an egg a day. When flowers are sufficiently abundant and bees are young they can lay two eggs or rarely three each day. Typically each egg will need the pollen and nectar from about 2,000 flowers. Most flowers offer pollen for only a day or two. So each female bee needs about 2,000 newly opened flowers each day. One dwarf apple tree in the yard is not going to attract many native bees. If bees are not your primary focus, cool damp places near shrubbery are good for other invertebrates.

For more ways to help insects and other hotel ideas, visit:

http://www.nwf.org/pdf/Certified-Wildlife-Habitat/Attracting%20butterflies_1-13_sm.pdf

<http://www.daviddomoney.com/wp-content/uploads/2014/08/David-Domoneys-Complete-Guide-to-Making-Your-Own-Insect-Hotels.pdf>

<http://inhabitat.com/diy-how-to-build-an-insect-hotel-from-found-materials/>

<http://www.gardenersworld.com/how-to/projects/wildlife-gardening/how-to-make-a-bug-box/166.html>

http://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2015/Battle-for-Butterflies.aspx?s_subsrc=Web_Spotlight_NMW_Home_BattleforButterflies

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/gardeners/>

<http://www.fws.gov/pollinators/pollinatorpages/yourhelp.html>



Top photo: Keeping an insect hotel near your garden or warm sunny space in your backyard will ensure that the pollinators are in close proximity to flowers. Photo by Sara Focht, IDFG. Bottom photo: Creating an insect hotel can be fun and artistic! Photo by Sara Focht, IDFG.

Come Party Like an Animal!

MK Nature Center 25th Anniversary Festival And Native Plant Sale

Saturday, April 25



MK Nature Center
600 S. Walnut Street, Boise

Help us celebrate and raise money for the MKNC!

Native Plant Sale 10-1

*Activities and Games 10-4

Payette Beer Garden 12-3:30

Music by *The Hokum Hi-Flyers* 2-4

Food by *Burgerlicious* 12-3:30

*Live Bird Demonstrations 11am, 12pm, 1pm, and 2pm

*Activity ticket price: \$1 each. Discount savings on multiple ticket purchases.
Food and beverages sold separately.



Morrison Knudsen Nature Center 25th Anniversary Fundraising Event



Thank you to our
generous donors
and sponsors:



Whether fishing, hunting, hiking, boating, or simply viewing wildlife from your own backyard, all Idahoans have the opportunity to enjoy Idaho's rich wildlife diversity.

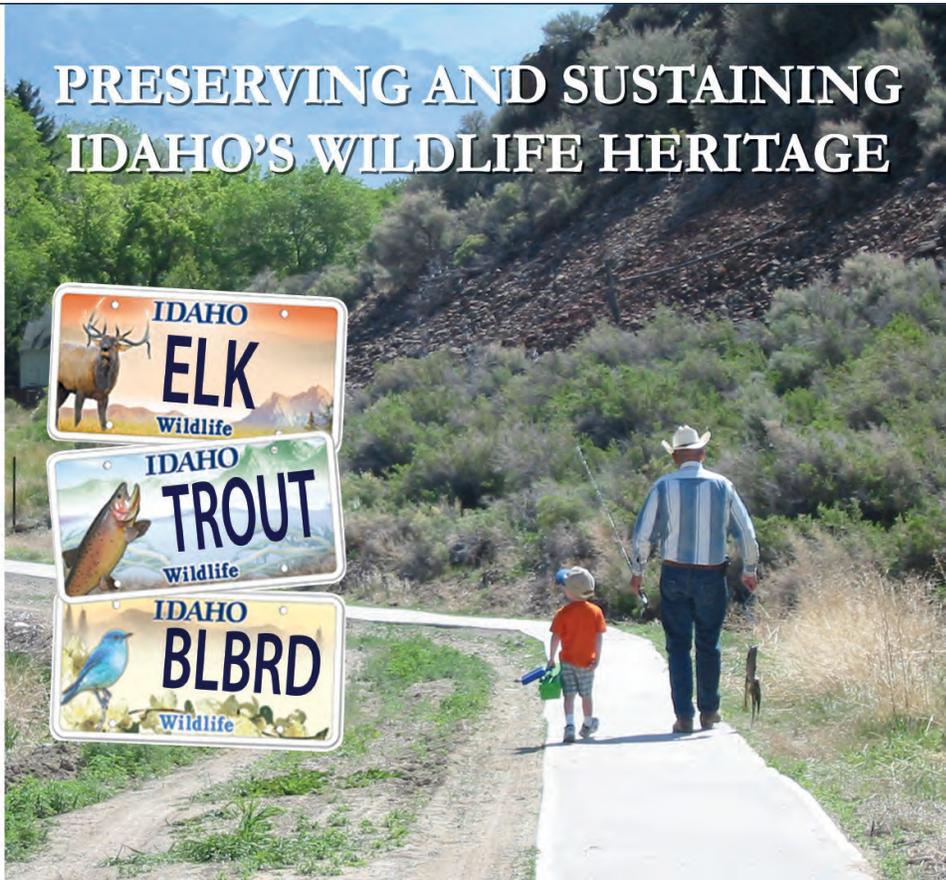
Each purchase or renewal contributes a portion to Idaho's wildlife:

- Conservation
- Habitat Improvements
- Education
- Wildlife Publications



Idaho Fish & Wildlife
FOUNDATION

PRESERVING AND SUSTAINING IDAHO'S WILDLIFE HERITAGE



Visit your DMV office
or renew online.

The Wildlife license plates are sponsored by the Idaho Fish & Wildlife Foundation, a 501(c)(3) nonprofit organization whose mission is to preserve and sustain Idaho's fishing, hunting and wildlife heritage.

NOXIOUS WEEDS ARE A SERIOUS THREAT TO IDAHO'S LANDS & WILDLIFE

THESE NOXIOUS WEEDS MAY BE DESTROYING YOUR FAVORITE HUNTING LOCATIONS!

Please join Idaho in the fight against noxious weeds!
For more information about Idaho's noxious weeds and how you can help stop their spread, log on to the Idaho Weed Awareness Campaign's website at:

WWW.IDAHOWEEDAWARENESS.COM

Leafy Spurge



Yellow Starthistle



Spotted Knapweed



Rush Skeletonweed



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 January 1 - March 30, 2015.

Idaho's nongame wildlife thanks you ALL!

Centennial Marsh © Mike Morrison



Windows to Wildlife

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Windows to Wildlife is a quarterly publication of the Idaho Watchable Wildlife Committee and IDFG Wildlife Diversity Program.

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- 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
- U.S. Fish & Wildlife Service