

SPRING 2018

# Windows to Wildlife

Your support at work in Idaho's landscapes







# Helping Six Wildlife Species Beat Climate Change Odds

by Michael Lucid, Regional Wildlife Diversity Biologist, Idaho Department of Fish and Game-Panhandle Region with Evan DeHamer\*, Regional Habitat Biologist, Idaho Department of Fish and Game- Panhandle Region and Victoria Osborn\*, Digital Media and Video Producer, Idaho Department of Fish and Game

An invasive frog in the wetlands of North Idaho is triggering climate related habitat work on one of Idaho Fish and Game's Wildlife Management Areas. In recent years warm temperature loving American bullfrogs have been making their way north along the Kootenai River Valley toward the Boundary-Smith Creek Wildlife Management Area (BSCWMA) near the US-Canadian border. Bullfrogs threaten native amphibians and pose an immediate threat to the last natural colony of native Northern leopard frogs in the northwestern portion of that species range. This bullfrog invasion has spurred emergency international bullfrog control actions and inspired Idaho Fish and Game and partners to obtain funding to manage the WMA to benefit several climate sensitive Species of Greatest Conservation Need (SGCN) including native amphibians, bumble bees, slugs, and bears. Multiple conservation actions will be implemented in the Forested Lowland Ecosystem as directed by Idaho's State Wildlife Action Plan.



Fish and Game and the Yellowstone to Yukon Conservation Initiative (Y2Y) have partnered to secure three grants totaling \$549,624 to conduct climate adaptation habitat restoration work on BSCWMA from 2018-2020. A grant for \$224,624 was awarded to Y2Y by the Wildlife Conservation Society Climate Adaptation Fund and two grants totaling \$325,000

were awarded to IDFG by the US Fish and Wildlife Service.

"Climate change can seem like such a daunting problem people sometimes feel like they can't contribute to solutions," says Lacy Robinson, Project Coordinator at Y2Y. "This project will not only demonstrate proactive actions we can take to help species adapt to climate change, but the citizen science component will allow local citizens to be part of that solution."

Habitat restoration is a long process that requires site preparation work. In the case of the BSCWMA. electrofrogging has

helped reduce the threat of warm temperature loving non-native bullfrogs to our cool temperature loving native amphibians and clear the path for this major climate adaptation habitat restoration project on the WMA.

"The broad-scale habitat treatments funded by these generous grants will allow us to address limitations faced by Idaho SGCN's, all within the main BSCWMA management directive of providing outstanding waterfowl habitat," says Fish and Game Regional Habitat Biologist Evan DeHamer.

The globally changing climate brings local habitat shifts that SGCN's may not be able to adapt to without human intervention. Fish and Game WMAs provide an opportunity to pro-actively manage habitat to assist climate sensitive species as our Inland Northwest summers get hotter and drier and our winters get warmer and wetter. An important

part of the grants will be working with additional partners to engage hundreds of local citizen scientists to help with tasks ranging from tree planting to collecting local wildflower seeds.

"Climate change has increased the urgency for wildlife conservation beyond belief," says Michael Lucid, Fish and Game Regional Wildlife Diversity Biologist. "Instead of targeting just one species, innovative and well executed projects like this help make up for lost time by benefiting many species in one effort."

These grants will allow us to manage the WMA in such a way that the effects of climate change are mitigated on a local level. Compared to the surrounding areas the actions we implement on the WMA will decrease air and water temperatures, increase forest cover and

soil moisture content, restore natural hydrological cycles, and provide food and cover for not only the SGCN but also upland game, big game, waterfowl, and many other non-game species. On the following page are specific climate adaptation strategies and which SGCN they will benefit.





ABOVE: Northern leopard frogs (@ Terry Anderson) and the Western bumble bee (@ Shannon Ehlers) are poised to get help from broad-scale habitat treatments.



# Restore Hydrologic Function to a Dry Streambed and Build Two Ephemeral Ponds

Species Benefited: Western Toad and Northern Leopard Frog

Climate Strategy: The forested lowlands of the Kootenai Valley historically flooded on an annual basis. Restoring part of this hydrologic function will allow native amphibians to breed while dis-allowing non-native bullfrogs from successful breeding. The native amphibians complete their lifecycle - from laying eggs to tadpoles turning into adults - in a single season. Warm weather bullfrogs however, take multiple years for tadpoles to turn into adults. Allowing breeding areas to dry up at the end of the season means bullfrog tadpoles will not survive the winter and be present to threaten the native amphibians when they arrive to breed the next year.

# **Build and Plant Cool Air Refugia**

Species Benefited: Western Bumble bee, Suckely's Cuckoo Bumble bee, and Pale Jumping Slug

Climate Strategy: Bumble bees and pale jumping slugs are cool air associated species that need local pockets of cool air and quality habitat. We will use heavy equipment to move dirt and create semi-shaded areas on the WMA. We will plant wildflowers and shrubs which will provide food and shelter for bumble bees, increase available soil moisture for pale jumping slugs, and reduce local air temperature for all three species.



### Bombus (Bumble bee) Seed Library

Species Benefited: Western Bumble bee and Suckely's Cuckoo Bumble bee

Climate Strategy: We will develop a volunteer citizen science program to collect wildflower seeds from local sources which will be used to plant the cool air microrefugia. This will not only enable us to obtain locally sourced seeds but enable a climate outreach and education tool.

# Reforestation with 50,000 Trees and Shrubs

Species Benefited: Grizzly Bear and Pale Jumping Slug

Climate Strategy: Grizzly bears use BSCWMA on a regular basis, especially in the spring. Providing ample cover and food sources for grizzly bears will increase the permeability of this important wildlife corridor. Reforestation efforts will also provide pale jumping slugs with additional habitat that will increase the soil moisture content and reduce the local air temperatures which are both critical for this species.

"Improvements made to portions of the WMA under the scope of this project will enhance cover types and forage for ducks, geese, upland birds and big game. We also hope community awareness and involvement over the course of the project will encourage folks to come out and enjoy the WMA's wildlife for years to come," says Fish and Game Regional Habitat Biologist Evan DeHamer.

### 4

# **Spring Wildlife Events**

# **Boise WaterShed**

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

www.cityofboise.org/Bee/WaterShed/Home/index.aspx

# April 21- WaterShed Weekend: Earth Day Celebration

Learn about living more sustainably through hands-on activities and crafts for kids between 10:00am and 1pm. Meet some Wiggly Dudes (worms) and learn how you can start vermicomposting at home. While you're here, pick up a free yard of City of Boise compost! Make and take a green cleaner and create crafts from recycled objects. Help us plant the Boise Watershed garden and take seeds home for your own garden. A water renewal facility tour will be at 11:30 am, weather permitting, closed toe shoes required, no strollers please.

# May 19- WaterShed Weekend: Water Festival!

Free activities from 10am-1pm followed by hike to Boise River from 1-2pm. Celebrate the Boise WaterShed's 10th anniversary with festival activities, water games, cupcakes, and a trout release! Join local engineers to launch water rockets, race your friends through a hydraulic maze, build your own filter and win prizes, all while learning about the water cycle and water treatment. Take a tour of the water renewal facility at 11:30 (closed toe shoes required). Stay after the activities to release more than 100 rainbow trout to the Boise River at 1pm. Hike is 1-mile roundtrip on a gravel path. Activities are sponsored by Carollo Engineers, Inc. Food available for purchase.

# Foothills Learning Center

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

## April 4 - Boise Birding Series with Terry Rich: Bird Song

9-10am; No pre-registration; please leave pets at home. Bird books and binoculars are available to borrow. Our 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. Terry will share some tips to help you identify species by their songs. He'll also have some suggestions about tools and resources that can help you become an avian musicologist. Time will be spent focusing 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.

### April 11 - Sunset Series: Morel Hunting 101

7pm — 8:30pm. Curious about morel hunting? These little morsels are easy to relatively identify, widespread and give us a great reason to get out of the house and onto our public lands in the spring. Join us for an informal discussion on mushroom-picking ecology, etiquette and edibility with Idaho Conservation League's experienced morel hunter, Jonathan Oppenheimer. Learn about foraging and cleaning techniques, how to locate spots where morels and other edible mushrooms might be found, and how to cook these delicious mushrooms. All attendees will be sworn to secrecy. No Registration Required.

# April 14 - Foothills Family Days: Puddles and Rainclouds

10am-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. You are even welcome to bring a picnic and enjoy our backyard! No registration required. Spring brings rain and snowmelt, bring life back to our foothills. Join us to explore what is in the clouds and the importance of our trickling streams and small ponds to the Boise ecosystem! We'll have cloud-in-a-jar demonstrations, cloud identification, amphibians to look at (they live in puddles!), and a spring scavenger hunt. You can even make your own rain cloud mobile. Bring your family and friends!

### April 19 - Tour of the Reserve- A Hiking Series: Avian Adventures Abroad: Military Reserve

Get to know your backyard as the FLC and the Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are part of a growing and interconnected system that provides environmental, social, health and economic benefits to Boise citizens. Maybe you are new to Boise or maybe you are a frequent trail user that wants to know more. Come hike with us and learn about these treasures! Pre-registration required! Please call Lana Weber at (208) 345 6933 Ext. 16. Military Reserve features 12 miles of trails on 734 acres. It includes an off leash dog park, wooded creeks, and an old military cemetery. In addition to excellent recreation, Military Reserve has a fascinating history!

# May 4 - Boise Birding Series with Terry Rich: Bird Identification

8-9am; No pre-registration; please leave pets at home. Bird books and binoculars are available to borrow. Our 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. Terry will focus on identifying the most common birds coming through Hull's Gulch using both visual and aural clues. This is the best time of year for birding! There will be a short talk, but most of the time will be spent birding on the trails.

### May 9- Sunset Series: Wild Edibles of the Foothills

7pm — 8:30pm. Ray Vizgirdas, field biologist and author of "Wild Plants of the Sierra Nevada", will take us on an interpretive walk and tour of useful plants, both edible and medicinal, in Boise's foothills. Our natural back yard is full of plants that provide sustenance and improve health. Plant identification can be a tricky business, but Ray will guide us as we see and explore what nature has to offer. No Registration Required.

# May 12 - Foothills Family Days: Wildflower Festival

10am-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. You are even welcome to bring a picnic and enjoy our backyard! No registration required, Join us for our first ever Foothills Wildflower Festival! Sip on some lavender lemonade, get your face painted, and wander through the tables with crafts and activities, while tapping your toes to some tunes. Idaho Native Plant Society will be here to display a collection of the season's blooms. Guided walks will start at 10:30 and 11:30 am.

# May 17 - Tour of the Reserve- A Hiking Series: Avian Adventures Abroad: Mesa Reserve

Get to know your backyard as the FLC and the Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are part of a growing and interconnected system that provides environmental, social, health and economic benefits to Boise citizens. Maybe you are new to Boise or maybe you are a frequent trail user that wants to know more. Come hike with us and learn about these treasures! Pre-registration required! Please call Lana Weber at (208) 345 6933 Ext. 16. Mesa Rock is situated near the highly trafficked Table Rock area. This reserve shares several trails and provides access to open space, views, and recreation. It connects to the Ridge to Rivers trail system and the Boise Greenbelt in three different locations, Join us as we take a spring walk through the fantastic geological features and terrain!

# June 6 - Boise Birding Series with Terry Rich: Bird Identification II

9-10am; No pre-registration; please leave pets at home. Bird books and binoculars are available to borrow. Our 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. Terry will help you identify more of the common birds coming through Hulls' Gulch. There will be a short talk but most of the time will be spent outside birding.

# June 9 - Foothills Family Days: Sheep in the Foothills

10am-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. You are even welcome to bring a picnic and enjoy our backyard! No registration required. Live sheep herding demonstrations, sheep petting, and everything sheep related. 4H and Future Farmers of America (FFA) teens will again be leading kiddos in some creative crafting. Don't forget to bring your lunch money for lamb sandwiches. There will be sheep's wool crafts for the kiddos, and vendors selling their felted wool and yarn products. Sit a spell and listen to some toe tapping tunes as you relax in our backyard and enjoy our annual Sheep in the Foothills event, a partnership with the Idaho Rangeland Resource Commission. Parking is limited, so consider carpooling or walking up the trails from Camel's Back.

# June 13- Sunset Series: Pollinator Ecology Walk

7pm – 8:30pm. The sagebrush-steppe slopes, meadows, and valleys of south-central Idaho offer a great array of wildflowers! These flowers and plants offer prime habitat for bees and butterflies. Hundreds of species have been recorded in the area, and many of those may be found between the Treasure Valley and Bogus Basin. We will go walking to see as many as we can find, and discover how to find, harmlessly detain, and identify butterflies and bees, while learning their lifecycle, needs and natural history.

June 21 - Tour of the Reserve- A Hiking Series: Avian Adventures Abroad: Military Reserve

Get to know your backyard as the FLC and the Idaho Conservation League team up to offer these short hiking "tours" of City owned foothills reserves. These eleven reserves are part of a growing and interconnected system that provides environmental, social, health and economic benefits to Boise citizens. Come hike with us and learn about these treasures! Preregistration required! Please call Lana Weber at (208) 345 6933 Ext. 16. One of the largest reserves City of Boise holds, Military Reserve features 12 miles of trails on 734 acres. It includes an off leash dog park, wooded creeks, and an old military cemetery. In addition, Military Reserve has a fascinating history!

# **MK Nature Center**

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

# April 2 - Evening Lecture Series: Birding by Sound

6:30-8pm; IDFG's Conservation Education Supervisor, Vicky Runnoe, will teach you how to recognize birds by sound. Come learn the vast and interesting noises birds make and how their sounds can help you learn to identify them. This lecture is free and open to the public. People of all ages are are welcome. Free.

# May 7 - Evening Lecture Series: Wildflowers of the Boise Foothills

6:30-8pm; Idaho Fish and Game Botanist, Lynn Kinter, will help us identify common wildflowers near Boise. Come look at Lynn's beautiful pictures of flowers and increase your ability to identify them when you are out enjoying the foothills. This lecture is designed for adults. Older children interested in flower ID can attend. Free and open to the public.

> 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.



# Family Friendly Event \*\*\*

- \*Live Bird Presentations
- 🔅 Wildlife Themed Education Tables
  - \* Activities and Games
  - Hunting Dog Demonstrations



Questions? Contact Sue Dudley sue.dudley@idfg.idaho.gov 208-287-2900



# **Conservation Corner**

# Discovering the Bumble Bees of Idaho

by Ross Winton\*, Regional Wildlife Diversity Biologist, Idaho Department of Fish and Game-Magic Valley Region



Despite their name, bumble bees are incredibly efficient and steady flyers. Aeronautical engineers have baffled for decades at their ability to effectively fly despite their large body size. While they are a fascinating and beautiful creature, we know very little about them in Idaho. Bumble bees and many other pollinators have been experiencing steep population declines across North America the last few decades and the causes and extent of these declines are not fully understood. We know pathogens, disease, habitat loss, and pesticides have all played a part, but in Idaho we know almost nothing about the implications or the scale of the population declines.

In 2015, Idaho completed its State Wildlife Action Plan (SWAP) and in it, five species of bumble bee were listed as Species of Greatest Conservation Need (SGCN). These species were listed due to documented range wide population declines and significant threats in the state of Idaho. In addition to the issue of population decline these species

have seen very little scientific attention in Idaho so we don't fully understand how our populations are doing. In 2017, the Idaho Department of Fish and Game, the Washington Department of Fish and Wildlife, and the Xerces Society for Invertebrate Conservation pursued and received funding from the U.S. Fish and Wildlife Service to survey the populations of these species in the Pacific Northwest.

Even with additional funding this project is still incredibly daunting and will rely heavily on citizen scientists and the public to provide information on what bumble bees they are seeing around the state. The Pacific Northwest Bumble Bee Atlas Project is taking place in Idaho, Washington and Oregon. Because Washington, Idaho, and Oregon are large and wild, scientists can only reach so many places. But with your help we can recruit an army of trained volunteers armed with cameras and vials. Then, we can cover all three states quickly, collect scientific quality data, and contribute to the global understanding of bumble bee distributions.

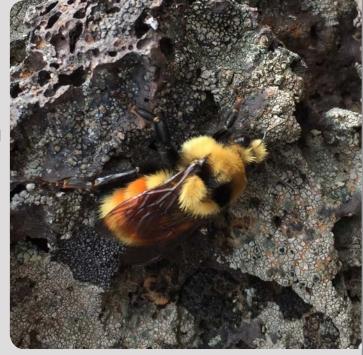
### **How You Can Help**

If getting outdoors, making scientific observations of Idaho wildlife sounds exciting, you can learn more at www.bumblebeewatch.org/bbatlas.

We are asking volunteers to adopt a grid cell in your area or a place you like to visit, commit to visiting sites in the adopted grid cell at least twice between May and August and submit your observations online or via the iOS or Android mobile apps.

These sites can be places you enjoy hiking during the summer, where you take your dog for a walk or perhaps where you have that big backpacking trip planned. It's that simple.

In addition to adopting grid cells, you can submit observations of your bumble bees in your own backyard or neighborhood. Every observation places another dot on the map and increases our knowledge of where these bees live and the status of their populations.

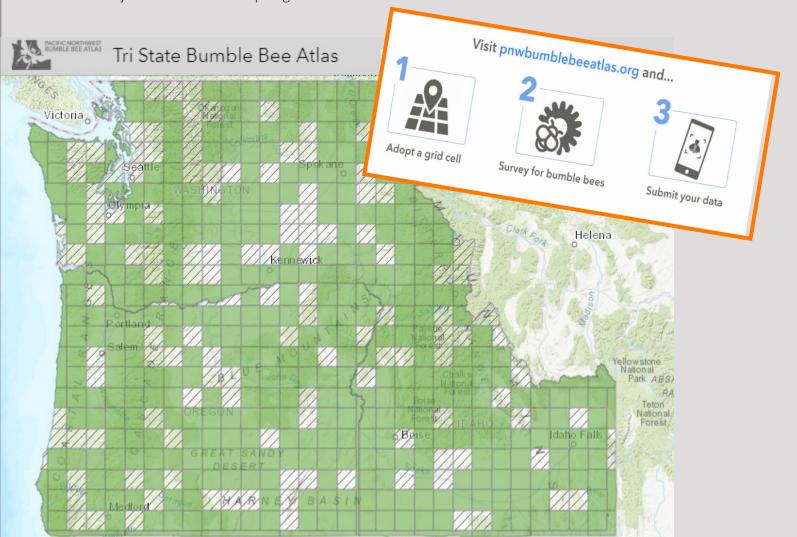


**Bombus observation from Black Butte** 

 $^{ ext{ iny C}}$  Ross Winton, IDFG

If you have questions or are interested in the project in Idaho you can contact Idaho Department of Fish and Game Wildlife Biologist, Ross Winton at ross.winton@idfg.idaho.gov or (208) 324-4359.

There will also be a volunteer training in **Boise at the M.K. Nature Center at 10:00am on May 19th** for those interested in learning more about how to monitor bumble bees in Idaho. If you can't make the training it will also be live streamed and recorded for your convenience. We look forward to seeing all of the great observations you will make this spring and summer! ■



# **News From the Field**

# **Idaho's Intriguing Orchids**

by Lynn Kinter\*, Lead Botanist, Idaho Department of Fish and Game

often picture orchids in tropical rain forests where they grow as epiphytes hanging from trees. But none of the 28 orchid species found in Idaho are epiphytes. They are all terrestrial--that is, they grow in soil. They typically occur in moist habitats, such as deep woods, bogs, springs, or river floodplains.

The Orchid family is tremendously diverse with >25,000 species-more than any other plant family (though some researchers argue that the Aster family has more). Its members are found in all reaches of the globe except Antarctica, and are renowned for their extravagant blooms. Orchid flowers typically have three sepals and two petals that look similar (sometimes called 'tepals'). A larger third petal--a 'labellum' or 'lip'--is highly modified into a landing platform, hood, boot, tube, or other unusual shape in an elaborate design to channel insects so that they will receive and transfer pollen.

The Idaho orchids that I think have the wildest flowers are fairy slipper (Calypso bulbosa) in bright pink and lavender, and the lady slippers (Cypripedium fasciculatum, C. montanum, and C. parviflorum), with maroon tepals and a balloon-like slipper of green, white, or yellow, respectively. Idaho's tallest orchid, the stream orchid (*Epipactis* gigantea), also has intriguing blooms of green, pink, and peach. Most of the remaining Idaho orchids, including twayblades (Neottia, =Listera), rein orchids (*Piperia*), bog orchids (*Platanthera*, =*Habenaria*), and ladies-tresses (Spiranthes), have small white or green flowers arranged in handsome racemes and spikes.

Western rattlesnake plantain (Goodyera oblongifolia) is one of my favorites because of its interesting evergreen leaves. It has a rosette of dark green oval blades, each covered with a net of white veins. These net-veined leaves are unusual among orchids--most have parallelveined leaves, as do other monocots like lilies and grasses.

Coralroot orchids (*Corallorhiza*) have neither leaves nor roots! They have only pale tan, red, or yellowish stems and flowers, and short, hard coral-like rhizomes. Without leaves or chlorophyll, members of this genus obtain carbon through specialized fungi in the soil. Yellow coralroot (*C. trifida*) has some chlorophyll and can fix some of its own carbon through photosynthesis. The phantom orchid (Cephalanthera austiniae), with ghostly white stems and flowers, is also parasitic.

To attract pollinators, orchids have a tremendous range of scents, from spicy to citrusy to stinky. Perhaps the most famous orchid scent is vanilla, which is used in perfumery and cooking and is made from the seed pods of Vanilla planifolia, a native of Mexico and Central America. Among Idaho orchids, fairy slipper has a vanilla scent, and the fragrant white rein orchid, or scentbottle, (*Piperia dilatata*, =*Platanthera dilatata*) is known for its clove-like aroma.





**Ute ladies-tresses** 

(Spiranthes diluvialis)

Native Americans have long treated ailments with orchids, including scentbottle for joint and muscle aches, fairy slipper for epilepsy, and lesser roundleaved orchid (*Platanthera orbiculata*) for blisters. The underground corms of Alaska rein orchid (*Piperia unalascensis*) have been eaten like baked potatoes, but I don't recommend this--our orchids are too scarce for broad-scale harvest.

Seven orchids are on the rare plant list of the Idaho Native Plant Society (see table on next page), though bluntleaved orchid

(Platanthera obtusata) is under review.
Creamy ladies-tresses (Spiranthes porrifolia), is known in Idaho from only a single site on Craig Mountain, in Nez Perce County.
Ute ladies-tresses (Spiranthes diluvialis) is listed as Threatened by the US Fish and Wildlife Service, and is the only Idaho orchid classified under the Endangered Species Act. It is found in eastern Idaho, on the Henry's Fork and South Fork of the Snake River. None of Idaho's orchids are known to be endemic to the state.

# Idaho is home to 28 orchid species, 7 of these are considered rare

There are three species that I think might be present in northern Idaho, but have not been documented yet. Longbract frog orchid (*Coeloglossum viride*) is known from northwest Montana and northcentral Washington. Roundleaf orchid (*Galaeris rotundifolia*, =*Platanthera rotundifolia*) is known from northwest Wyoming and northwest Montana. Lesser rattlesnake plantain (*Goodyera repens*) is known from northwest and central Montana.

No orchids are invasive in Idaho, and relatively few are invasive anywhere in North America. This may be because orchids are notoriously finicky about their habitats. Also, their seeds must find compatible fungi soon after dispersal because they are tiny and lack food stores. Orchid seeds are the smallest in the world--much smaller than poppy or mustard seeds.

With their unique natural history and exotic beauty, Idaho's orchids are an intriguing group. ■









# Orchids of Idaho (Rare plants in bold)

# Common Name

fairy slipper

# phantom orchid

summer coralroot Pacific coralroot

striped coralroot yellow coralroot

spring coralroot

# clustered lady's slipper

mountain lady's slipper

# yellow lady's slipper

stream orchid

western rattlesnake plantain

northern twayblade

northwestern twayblade

broadlipped twayblade

heartleaf twayblade

scentbottle

elegant piperia

denseflower rein orchid

Alaska rein orchid

northern green orchid

Huron green orchid

### bluntleaved orchid

lesser roundleaved orchid

slender bog orchid

**Ute ladies-tresses** 

creamy ladies-tresses

hooded ladies-tresses

# **Scientific Name**

Calypso bulbosa

### Cephalanthera austiniae

Corallorhiza maculata

Corallorhiza mertensiana

Corallorhiza striata

Corallorhiza trifida

Corallorhiza wisteriana

## Cypripedium fasciculatum

Cypripedium montanum

# Cypripedium parviflorum

# Epipactis gigantea

Goodyera oblongifolia

Neottia borealis

Neottia caurina

Neottia convallarioides

Neottia cordata

Piperia dilatata

Piperia elegans

Piperia elongata

Piperia unalascensis

Platanthera aquilonis

Platanthera huronensis

### Platanthera obtusata

Platanthera orbiculata

Platanthera stricta

Spiranthes diluvialis

Spiranthes porrifolia

Spiranthes romanzoffiana

(source: John Kartesz, Biotia of North America Program, 2016)

# Watchable Wildlife



# Help us track monarchs and milkweed across the west

Monarch populations across North America are in serious decline. To preserve and protect populations in western states, we need to better understand where monarchs and their milkweed host plants occur in the landscape.

Your help is critical in collecting data to better inform conservation efforts in the Western U.S.

# About

This project is part of a collaborative effort to map and better understand monarch butterflies and their host plants across the Western U.S. Data compiled through this project will improve our understanding of the distribution and phenology of monarchs and milkweeds, identify important breeding areas, and help us better understand monarch conservation needs.

See more at: https://www.monarchmilkweedmapper.org

# How Can You Help?

Your help is critical to the success of this project!

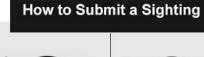
- Sign up for an account: https://www.monarchmilkweedmapper.org/app/#/user/signup
- Upload your photos of monarchs and milkweeds;
- Identify milkweeds using our milkweed key, which profiles over 40 milkweed species found in
- Submit data which will help researchers determine the distribution, phenology, and conservation needs of monarchs and milkweeds in the west; and
- Learn about monarchs, their host plants, and ongoing conservation efforts for these species.

Participating in the project is simple. Once you have an account, go out and start looking! Check your local parks, natural areas, gardens, and even roadsides.

We're looking for all stages of monarchs, so don't forget to look at milkweed leaves and stems to see if caterpillars or eggs are present.

Snap a few photos (learn more about how to photograph milkweeds and monarchs here) and then sign in and submit your data via our Milkweed and Monarch Sightings forms.

Have fun while learning more about monarchs and the special habitats they use in your area!





Take a photo of a monarch and/or milkweed



Login and upload your photo(s)



Identify your sighting



Submit your sighting!!











# NONGAME WILDLIFE CONSERVATION FUND

Help conserve Idaho's wildlife and their habitats.

The Idaho Department of Fish and Game receives no state tax dollars and nongame wildlife receive no revenue from the sale of hunting and fishing licenses.

By making your tax-deductible contribution, you are helping to protect over 90% of Idaho's wildlife diversity as well as supporting important conservation education and watchable wildlife programs.

Do something wild and donate today!





Windows to Wildlife

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

# Forwarding Service Requested

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

Deniz Aygen — Editor

deniz.aygen@idfg.idaho.gov 208•287•2750

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

\* The contents of the articles in this publication are the views and opinions of the individual authors and do not necessarily represent or reflect the policies or opinions of the Idaho Department of Fish and Game or the State of Idaho.



The Watchable Wildlife Committee and the Wildlife Diversity Program grant permission to reprint uncopyrighted text, NOT artwork, provided Windows to Wildlife is credited.

The Idaho Watchable Wildlife Committee is comprised of the following agencies and organizations:

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

U.S. Fish & Wildlife Service