



There Be Giants in Idaho!

By Joel Sauder
Nongame Biologist, Clearwater Region

In the forests of Idaho there lurks a rarely seen giant. Cryptically colored and slow moving, it can be found in and around streams and rivers. It is cold-blooded and hairless (so that rules out Bigfoot!), and it has a voracious appetite. Luckily for us, this giant eats mainly invertebrates and reaches only about 13 inches in length. The giant in question is the Idaho Giant Salamander (*Dicamptodon aterrimus*), and most people have never heard of it, let alone seen it.

In general, the natural history and conservation status of the Idaho Giant Salamander is poorly understood. In Idaho, it is classified as a "species of greatest conservation need" (in Idaho's Comprehensive Wildlife Conservation Strategy). Besides Idaho and a small area of extreme western Montana, the species is found nowhere else in the world. Basic data about distribution and how stream characteristics promote salamander abundance are lacking.

One of the most fascinating characteristics of Idaho Giants is their unique ability to choose to live either on land or in the



A terrestrial adult



Look closely, this paedomorphic salamander has gills!

water. The vast majority of Idaho Giants spend their whole life in streams and rivers. Those that choose to live this way retain many of the characteristics of larval salamanders (i.e. external gills) but are sexually mature, breeding adults. Scientists call these larval looking adults "paedomorphs" or "paedomorphic," meaning "child-like body structure." Conversely, there is a small portion of Idaho Giants that choose to live on land. When this happens, not only do they absorb their gills and grow lungs, which is an amazing feat in itself, but their body stance, head shape, eye position, and color marking completely change. To the uninformed observer it would look like an entirely different species! However, these terrestrial Idaho Giants still must return to streams and rivers to breed and they can interbreed

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with paedomorphs. At this time scientists don't know exactly what causes an Idaho Giant to choose to live either on land or in the water. It has been hypothesized that individuals living in streams with marginal water flows are more likely to choose to live on the land. Gills only work underwater, so being able to grow lungs when the stream dries out would be a handy skill to have!

For the past three years IDFG has been conducting surveys for Idaho Giant Salamanders in collaboration with Northwest Nazarene University. Undergraduate students interested in a career in fish and wildlife work with IDFG biologists to sample streams and count salamanders. The purpose of these surveys is to improve our understanding of the distribution of Idaho Giants in the state and to try and figure out why some streams have lots of salamander while others have few or none. In addition to the statewide surveys, a long-term monitoring site has been established where salamander growth rates, survival, productivity, and lifetime movements can be studied.

So next time you are out in the forests of central and northern Idaho, keep an eye out for giants! It is possible to see Idaho Giant Salamanders basking along the edges of submerged rocks or in shallow pools in gentle sections of mountain streams. If you take the time to roll some cobble sized rocks you will improve your odds of finding one of these elusive animals. Good Luck!

Looking for Merlins

*Bruce Haak,
IDFG nongame biologist, Region 3*

The merlin is the second smallest falcon in North America. Because they are elusive and easily confused with the American kestrel in the field, their presence often goes undetected. Merlins are distinguished by their chunky appearance, barred tail, and rapid, sustained flight. They are slightly larger than the more common American kestrel and they do not have the facial markings and bright color patterns of the kestrel. Three subspecies of merlins are found in Idaho. The most common is the taiga merlin that is uniformly brown; the Richardson's merlin is pale, almost white; and the black merlin is quite dark. Juveniles and females have similar plumages, while adult males have a bluish tint on the back.

Merlin populations across North America were greatly reduced during the DDT era. At present, they are increasing in number and expanding their range across the continent. During autumn and spring, merlins from as far away as Canada and Alaska pass through Idaho on their annual migration. During winter, many merlins may be found wintering at lower elevations, especially near towns, dairies and feedlots.

Within the past 30 years, new populations of Richardson's merlins have been established in southern Saskatchewan and Alberta. In addition, nesting pairs of black merlins have been located in nearby western Washington, between Seattle and the Canadian border. These days, merlins are adapting to urban environments where large trees, year around water, and abundant food resources can be found.

Typically, merlins occupy the abandoned stick nests of crows and magpies. When conditions are good, they can raise up to five young per year. Merlins are both noisy and aggressive when defending their territory and young. In contrast, kestrels prefer to raise their young in tree cavities, large bird boxes, and even openings in buildings.

Historically, precious few merlin nests have been found within Idaho. During the mid-1970s, two nests were documented in eastern Idaho. Last year, an active nest was found in north Idaho and others were suspected. Because the merlin is ranked as a Species of Greatest Conservation Need under Idaho's Comprehensive Wildlife Conservation Strategy, work is underway to verify active merlin nests throughout the state. Anyone who finds a nest, or a territory being defended by a pair of merlins, should report it to the nearest Fish and Game regional office.

These days, there are more skilled birders in the field than ever. Because nests are rare, help is needed to verify the presence of breeding merlins during spring and summer. With good communications between Fish and Game and the wildlife-viewing public, and with a concerted survey effort, we should be able to increase our knowledge of the merlins nesting in Idaho.



Photo courtesy Bruce Haak, IDFG

The merlin (above) is slightly larger than the more common American kestrel (below). Notice the lack of color and facial pattern on the merlin compared to the kestrel. The merlin pictured here is a Taiga male.



Photo courtesy USFWS

Wildflower Watching

Sara Focht, Watchable Wildlife Program Coordinator, IDFG

Spring and summer bring the brilliant colors of wildflowers to Idaho landscapes. In some areas of Idaho, the wildflowers have already come and gone. But you need only to go up in elevation to see the colors all over again. Wildflower “hunting” and photographing can be an enjoyable and rewarding summer adventure. There are hundreds of wildflowers to learn about and appreciate. Below are just a few of Idaho’s common wildflowers representing various colors of the rainbow.

YELLOW - Arrowleaf Balsamroot (*Balsamorhiza sagittata*)

A classic sunflower-shaped flower that grows in bunches. Like many members of the Asteraceae (sunflower) family, what appears to be a single “flower”, is actually many florets. Look carefully at the center of one of these large “flowers” and you will see many tiny complete flowers, called ‘disc flowers’. The large “petals” around the outside are ‘ray flowers’. When viewed together from afar, the ray and disc flowers look like one very large flower.

PINK - Shooting Star (*Dodecatheon pulchellum*)

This flower looks like it is turned inside-out, with its petals flaring back, away from the inner parts of the flower. Often growing in huge swaths, this flower can turn a green meadow into a magenta carpet. Pollen is shaken loose from the flower by the vibration of visiting bees.

RED - Paintbrush (*Castilleja sp.*)

There are over 30 species of paintbrush in Idaho and they are often difficult to distinguish. The red, pink, salmon, or white petals of the paintbrush are not petals at all! The actual petals are rather inconspicuous, but are often surrounded by brightly colored bracts. Paintbrush is difficult to grow in your yard as an ornamental because it is a partial parasite! While paintbrush species photosynthesize to make food and have functional roots to absorb water and nutrients, they also have fingerlike growths from their roots. These structures, called haustoria, penetrate the roots of other plants and steal nutrients and water.

BLUE - Common Camas (*Camassia quamash*)

Camas grows in moist meadows and can paint a meadow blue! Camas is an important traditional food to Native American tribes in Idaho. For centuries, roots of camas have been roasted, pounded, and made into cakes and even eaten raw, though most commonly, cooked and dried. When cooked for days in pits with hot stones, the bulbs break down into a sweet mush.

WHITE - Yarrow (*Achillea millefolium*)

Yarrow can be identified by white clusters of tiny, daisy-like flowers and fern-like leaves. If you crush its leaves, you will smell a distinctive odor. In the past, this flower was used for medicine for many ailments and was known for its ability to stop bleeding.

To see these flower’s brilliant colors, see the online version of the newsletter at <http://fishandgame.idaho.gov>



Paintbrush, courtesy Joshua Olson



Shooting star, courtesy USDA Forest Service



Yarrow courtesy, Sara Focht, IDFG



Camas lily, courtesy Colleen Moulton, IDFG



Arrowleaf balsamroot, courtesy Sara Focht, IDFG

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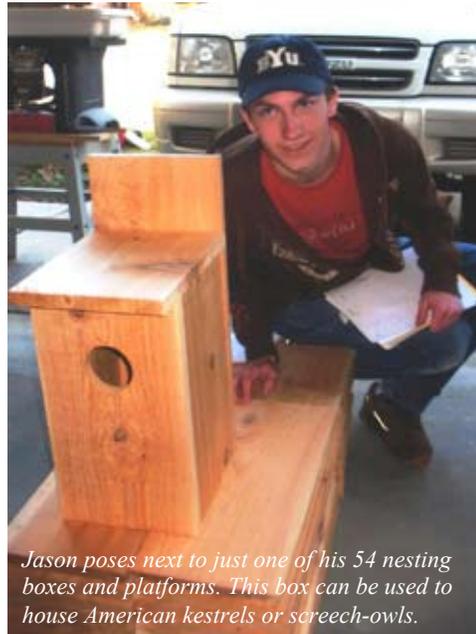
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The following people made direct donations, purchased or renewed a wildlife license plate, or let us know of a tax check-off donation between March 1, 2008 through May 31, 2008. This list represents those who marked the contributor box when they donated to the Nongame Program. However, many subscribers not listed here have contributed generously and Idaho's Nongame wildlife thanks you ALL!



Jason poses next to just one of his 54 nesting boxes and platforms. This box can be used to house American kestrels or screech-owls.

The Idaho Watchable Wildlife Program would like to thank Eagle Scout Jason Spjute (Troop 76 in the Treasure Valley) for his work toward making bird houses and nesting platforms for International Migratory Bird Day. Jason organized a crew to cut and assemble the boxes. He donated the boxes to the Watchable Wildlife Program where we sold them to the public. The money raised will be put back into the Watchable Wildlife Program for education about wildlife, native plants, wildlife habitat, and wildlife viewing. Thanks Jason!

Summer *Wildlife Events*

Deer Flat NWR-Nampa

For details about Deer Flat NWR events call (208) 467-9278 or visit <http://www.fws.gov/deerflat/currevents.htm>

Reading at the Refuge

July 1st (10 am), 2ns (2 pm), 15th (10 am), 16th (2 pm)
August 5th (10 am), 6th (2pm), 19th (10 am), 20th (2pm)

Visitor Center - Wild about Life Lecture Series

Ethnobotany: Local Plants and People

Tuesday, July 8
Find out how human-plant interactions have shaped us through history.
7-8 pm, Visitor Center

Topic to be announced

Tuesday, August 12
7-8 pm, Visitor Center

Scout Day

Saturday, July 12
1-3 pm, Visitor Center
Registration is required!

Saturday, August 2nd
1-3 pm, Visitor Center
Registration is required!

Weed Warriors

Saturday, July 19th
9-11 am, Visitor Center

Saturday, August 16th
9-11 am, Visitor Center

Biobiltz Family Festival

August 19th
10 am-3 pm, Visitor Center

Foothills Learning Center-Boise

Edible and Useful Plants of the Boise Foothills

July 9th, WHERE?

Back by popular demand, local naturalist and author Ray Vizgirdas will take you for a walk in the Boise foothills to observe, identify, and learn about wild edible, medicinal, and useful plants. 6:30-8pm.
Call (209) 514-3755

Zoo Boise-Boise

The new frog exhibit is open at Zoo Boise! This exhibit will help bring attention to a crisis that is threatening amphibians around the world. The "Frog Days of Summer" will feature 15 species of frogs. Visit www.aza.org or www.amphibianark.org for more information

MK Nature Center-Boise

Salmon BBQ

Idaho Salmon and Steelhead Days
September 11th 5:30-8:00 pm

Support Idaho Salmon & Steelhead Days by attending the salmon barbecue. Enjoy a delicious salmon dinner donated by Fred Meyer and prepared by Murphy's Seafood Bar & Grill chefs. Dessert is donated by Goody's Soda Fountain & Candy Store. All barbecue

activities are family friendly and include live music, gyotaku fish painting and splashing in the Boise River with the activity Kids in the Creek. The Nature Center stream walk will be open for viewing live Chinook salmon and kokanee salmon. Tickets are limited and sold on a first-come, first-serve basis. Please call 334-2225 for more information

Idaho Salmon and Steelhead Days is an educational event that celebrates the biology, history and economic and cultural significance of salmon and steelhead. During the three day event, as many as 1,800 fifth graders participate in hands-on outdoor activities. The schedule is full for this year. Classes are scheduled in the spring for the following year. All events are held at the Idaho Fish & Game at 600 S. Walnut St., Boise.



Flashy Feathers Formed by Plentiful Pigments

Sara Focht, Watchable Wildlife Program Coordinator, IDFG

Summer brings the yellow darts of the yellow warbler and the blue flashes of the mountain blue bird. It brings the dark orange hues of the oriole and the bright red western tanagers. One of the things that attract people to watching birds is the variety of colors birds display.

Feather color can be caused by pigment, feather structure, or a combination of both. Just like in your hair and skin, birds have pigment in their feathers that makes you see a variety of colors such as gray, black, red, yellow, orange, and some greens. Birds' bodies make the feather pigments and deposit them in the feather structure.

Some feather colors are not a result of pigments. For example, there is no pigment in birds for making a blue feather. Blue feathers are caused by light hitting the feather surface and being bounced back to our eyes as blue. So the feather structure itself causes the color we see.

Enjoy Idaho's colorful summer birds before they head south in September.

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Sara Focht — Editor

sfocht@idfg.idaho.gov
208•287•2750

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