



Volume 27/Issue 8 Idaho's Frogs and Toads April 2014

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Idaho's Frogs and Toads



Have you ever caught a frog? If you have, you've held an amphibian. Amphibians are the only vertebrates (animals with backbones) that go through a metamorphosis. Their bodies change shape as they develop and grow.

All amphibians start their lives inside eggs. The eggs hatch and then the amphibians are called larvae (LAR-vee). Larvae have round bodies with tails. We call frog and toad larvae tadpoles. The larvae then change into adults. They sprout legs, and the tail goes away. That's a big change!

Idaho has 10 different species of frogs and toads. All frogs and toads share things in common with each other. Most are usually found in or around water. All amphibians lay their eggs in a wet place. Their eggs are not covered with hard shells. The eggs are covered with layers of jelly. The jelly needs to stay wet, so the developing frog inside the egg can breathe. If the jelly dries out, air can't flow in and out of the egg, and the frog will die.

Most tadpoles live in water. They get oxygen out of the water with gills. Almost all of Idaho's tadpoles eat plants or decaying plants. There are, however, some that eat insects and even other tadpoles and frogs. Metamorphosis from tadpoles to adults may take a few days or a few years. It all depends on the type of frog and temperature of the water. The first sign that the tadpole is transforming is when back legs begin to appear. Then lungs begin to develop.

The front legs then sprout and the tail begins to shrink. The last things to disappear are the gills.

Adult frogs and toads spend time on land as well as in the water. Frogs do not only breathe with lungs; they can also breathe through their skin! Their moist, thin skin lets oxygen and other gasses pass right through. About once a week, frogs shed their skin. They pull the skin over their heads like a sweater and usually eat it. It may sound gross to eat the skin, but it has nutrients that the frog needs. Most adult frogs eat invertebrates. Insects, spiders, and sowbugs are all on the menu. Larger frogs will eat just about anything that is alive that they can fit in their mouths. Frogs and toads swallow their prey whole. Frogs shut their eyes completely when catching their prey, so they need to aim before they strike. Frogs eyes help them to swallow! The eyes sink through openings in the skull and help push food down the throat. This is why frogs seem to blink as they eat.

Some amphibians, like toads, have bumpy skin. The bumps are glands that ooze liquid. The glands help keep their skin moist. Some glands make poison or stuff that tastes bad. This helps protect frogs and toads from predators. Amphibians are amazing animals! Keep an eye and ear out for them this spring while exploring around ponds, lakes and wetlands.

Great Basin Spadefoot Toad



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In southern Idaho, you can find a special little amphibian, the Great Basin spadefoot toad. Spadefoots are

burrowing toads. On each back foot, they have a black, wedge-shaped spot. This little spade works like a shovel and helps them dig. Great Basin spadefoots are found in pretty dry places. When things get too dry or hot, spadefoots will burrow underground. They can stay buried for many months.

After a spring or summer rain, you might hear the breeding calls of a male spadefoot. The call is a hoarse “wah-wah-wah.” Spadefoots will lay their eggs in farm ponds, shallow lakes and even rain puddles. The female will lay between 300 to 500 eggs. The eggs hatch quickly, usually in two to three days. In just a few weeks, the tadpole is transformed into an adult. Spadefoots develop quickly before their water pools dry up.

Great Basin spadefoots look for food at night. They like to eat ants, beetles, grasshoppers, crickets and flies. To protect themselves from predators, they look like rocks. If camouflage doesn't work, they have another trick up their sleeves. Great Basin spadefoots make a nasty skin secretion. This nasty stuff will repel most predators. If you grab a spadefoot, you might start sneezing! The secretion has been known to make humans sneeze.

Spotted Frog



Spotted frogs can be found all across northern Idaho and in the south-western corner of the state. The only place you are not likely to see spotted frogs is within the Snake River Plain.

As you probably figured out, spotted frogs do have spots, but most frogs have spots. How do you know you are looking at a spotted frog? The one feature that sets them apart from other Idaho frogs is a light-colored stripe that runs along the upper lip.

Once the snow melts and the water temperature warms up, spotted frogs begin to breed. Males congregate in shallow water and call during the day. The males' calls sound a bit like soft “clucks” or “thumps.” The females lay their eggs by the males that have the best sounding “clucks.” Eggs are laid in a ball-shaped mass of jelly. Each ball may contain up to 1,300 eggs. The eggs hatch in three to 21 days. It all depends on the temperature of the water; the warmer the water the faster the eggs will develop.

Spotted frogs eat just about anything that happens to get too close. The adults' diet includes snails, insects and spiders. Spotted frogs need to look out for bullfrogs, herons, and any other critters that think a frog will make a tasty treat.

Tailed Frog

This frog is only found living in the Pacific Northwest. In Idaho, it is found in central and north-central Idaho near cool, fast-moving streams. Only the males have a tail. This little frog will grow to be about two inches long. It varies in color from brown to green to gray.



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Tailed frogs lay their eggs in very fast-flowing streams. The female lays 44 to 75 sticky eggs under rocks in the stream. The eggs will hatch in about two months. Tailed frog tadpoles are a bit different. They are born with a mouth that has a big suction cup on it. They hold on to the rocks with their mouths. This way they won't get washed downstream with the current. Tailed frog tadpoles may not turn into adults until they are four years old.

Unlike other frogs, tailed frog males do not have a mating call. Even if they did call, the females would most likely not hear them. Tailed frogs have no eardrums!

Wood Frog

Another amazing frog found only in the most northern parts of Idaho is the wood frog. It is rare. It has only been found in Boundary and Bonner counties.

Wood frogs can live in the Arctic Circle! Most frogs would freeze to death. The wood frog freezes too, but it doesn't die. Wood frogs can turn the sugar in their blood into a type of antifreeze. The special antifreeze goes to their organs. The heart, brain, liver and other organs don't freeze, but the rest of the body freezes as solid as a Popsicle! When spring comes, the frogs thaw out and leap back to life.

The males make a call that sounds a bit like a quacking duck. Wood frogs lay their eggs in winter through early June. In Idaho, they move to their breeding ponds and lakes before the ice melts. The females lay their eggs in masses that may have 3,000 eggs in a group. After they lay their eggs, the frogs move back onto land where the land is moist.



Western Toad

Western toads are found all across Idaho from mountain meadows to brushy deserts. They spend most of their time on land but need to be near water to lay their eggs.

Western toads are big; they may be up to five inches in length. They are tan, gray, green or brown in color. Their skin is bumpy and covered with poison glands for protection. Western toads taste awful to a predator!

Western toad males do not have a mating call, but they do make sounds that can be heard. Females lay about 12,000 eggs. The eggs are laid in a double-stranded string that may be up to six feet long. The tadpoles are very dark in color and are often seen in large swarms swimming in shallow ponds and lakes.

Western toads dig burrows or use the burrows of small mammals to avoid the cold of winter or escape the heat in summer. During hot summer days, they stay safe in a burrow and come out at night to eat insects, spiders, sowbugs and earthworms. During the cooler months of fall and spring, they are active during the day.



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Woodhouse's Toad

Woodhouse's toads look like western toads. The way to tell them apart is to look at the toad's head. Woodhouse's look like they have back to back "L"s between and behind their eyes. They also have a larger, longer poison gland behind the eye.



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Woodhouse's toads are only found in the western part of Idaho, mostly along the Snake River. They may be found in grasslands, woodlands, shrubby areas, and around farm fields. Woodhouse's toads are most active at night. During cold months, they burrow underground or hide under rocks, plants or other cover.

The males make calls to bring females to breeding sites. Their call sounds like a bleating lamb or "waaaaah." Females lay up to 25,000 eggs, more than any other frog or toad in Idaho! The tadpoles of this toad look a lot like the tadpoles of the western toad. It may be difficult to tell them apart.

Northern Leopard Frog

It is easy to tell this frog apart from other frogs found in Idaho. The background color of the frog may be green or brown, but it always has dark spots surrounded by light colored halos. It also has ridges that run down the body and easily seen eardrums. Northern leopard frogs are found throughout southern Idaho along the Snake River Plain and in some areas in the northern panhandle.



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Northern leopard frogs like marshes, ponds, streams and lakes that have lots of plants in and around the water. They need the plants for protection from predators. They may be eaten by birds and mammals, but their biggest threat is the garter snake. When leopard frogs are disturbed, they jump around quickly and in all directions. This may help to confuse a predator.

In Idaho, leopard frogs eat things other than just insects and spiders. They have been known to eat birds, other tadpoles, small frogs and fish. They may even eat their main predator, garter snakes!

The males make many different sounds in the spring. The most common sound is a deep chuckling sound. Females lay small eggs in flattened clusters that look a bit like a Frisbee. Each cluster may contain up to 6,000 eggs.

Bullfrog

Bullfrogs are not native to Idaho. They were brought to the state in the 1800s as a source of food. People liked to eat bullfrog legs. Farmers thought they could raise bullfrogs in ponds similar to the way fish are raised in a hatchery. The idea did not work out. Bullfrogs are carnivores. They eat insects and other animals. The farmers couldn't give the bullfrogs enough food. Soon the bullfrogs started eating each other! When the farmers realized bullfrogs cannot be raised in captivity, they released the bullfrogs out in the wild. Since bullfrogs are not a native species, they out compete our native frogs. They eat more food than the native frogs and may even eat native frogs!



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Bullfrogs are big, about the size of a teacup. They may reach lengths of up to eight inches. They have a large eardrum behind the eye and a fold of skin that runs from the eye around the eardrum.

Male bullfrogs attract females to breeding waters with a deep call that sounds like "jug-of-rum." Females may lay up to 20,000 eggs. The eggs hatch within four to five days and begin to eat. Tadpoles eat plants, insects and other tadpoles. Adults may eat mice, birds, frogs, fish, insects, spiders and snakes.

Pacific Chorus Frog

The Pacific chorus frog is the “ribbit” frog! The males’ mating calls are often used in movies for frog sounds. This little frog only reaches a length of about two inches. It is found across most of western and northern Idaho.

This frog comes in a variety of colors. They may be green, brown, gray or red. No matter what the background color, all have a dark line through the eye that ends above the shoulder. The most important feature of this frog is the toe pads. They have soft, round toe pads that work like suction cups to help them climb trees.

Pacific chorus frogs lay their eggs in marshes, ponds, lakes, rivers and irrigation ditches. The eggs are laid in clumps of 10 to 70. They attach the eggs to vegetation in the water or let the eggs fall loosely to the bottom. The eggs looked striped. They are brown on the top and yellow on the bottom. After mating, these little frogs move out of the water and onto land. Their thin legs, small webs and toe pads allow them to climb into shrubs and trees. This offers them protection from predators.



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Boreal Chorus Frog

This is Idaho’s smallest frog. It reaches a length of about one and one-half inches as an adult. This frog can be found in the eastern part of the state along the Snake River Plain to the western border.

Boreal chorus frogs have an eye stripe like the Pacific chorus frog. The difference is the boreal chorus frog’s stripe extends all the way to the back of the frog.

Male boreal chorus frogs call during the breeding season. Their call is a load chirp. The call is short in duration, but they repeat the call 30 to 70 times per minute. The females lay 30 to 70 eggs that are attached to plants or other things in the water. The eggs are difficult to find. They are dark in color to hide them from predators. When the adults are not hunting insects, they are hiding in water, thick vegetation, under objects or in rodent burrows.



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BE OUTSIDE
IDAHO CHILDREN IN NATURE

Be Outside-Go Herping!

What's Herpetology?

Have you ever heard of herpetology? In Greek, herp means creeping, so herpetology is the study of creeping things. It is the study of reptiles and amphibians. Many people just call them herps for short.

It is fun to look for amphibians and reptiles and learn about what they need to survive. If you want to go "herping" and look for reptiles or amphibians, here are some things to keep in mind. You are more likely to see an amphibian or reptile in the spring during breeding seasons. Use a good sturdy stick to flip things over. Many herps hide under rocks, logs and leaves, so looking under things is a good place to start. Look for amphibians when the sun is going down and at night; reptiles are usually seen during the day.

If you would like to get a close look at an amphibian or reptile, place the animal in a clear plastic box. Amphibians will probably need a bit of water in the box. Herps can bite! Use a net or

wear thick leather gloves when handling animals and never handle a rattlesnake. Once you are done looking at your herp, put it back where you found it. Herpetology can be a fun! Read books and watch videos to learn more about amphibians and reptiles. Then go exploring and look for herps around your neighborhood.

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Frog and Toad Word Search

Words

Amphibian	Metamorphosis	Tailed
Boreal Chorus	Pacific Chorus	Vertebrate
Bullfrog	Spadefoot	Western Toad
Eggs	Spotted	Wood
Leopard	Tadpole	Woodhouses

J D B G W R K E M N M M H D P
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