Wildlife Express!

Volume 26/Issue 9 Rattlesnake May 2010

Snake, Rattle & Roll

Photo courtesy Paddy Murphy

IDAHO FISH & GAME

Let's Talk About . . . RATTLESNAKES

The Western Rattlesnake

What goes through your mind when you hear someone yell, "Rattlesnake!" Do you get nervous or scared? Or do you think, "Cool, snake!" Many people have mixed feelings about snakes, especially rattlesnakes. Often rattlesnakes are misunderstood.

Rattlesnakes are found everywhere in Idaho except the northern part of the state and high in the mountains. You may have heard one while taking a hike. When rattlesnakes feel threatened, they shake the rattle on the end of their tails and make a sound. The twitches can be 20 to 100 times per second! The warmer a snake is the faster it can shake its tail. They can sound a bit scary, but Idaho's rattlesnakes are calm snakes. They rarely rattle. Even when approached, they usually remain calm and still. They would rather avoid being seen or heard.

The rattle is made of interlocking rings of keratin. Your fingernails are made of keratin. Every time a snake sheds its skin a ring is added to the rattle. Snakes shed their skin when they grow. A rattlesnake may shed its skin up to four times a year, so you can't tell a rattlesnake's age by the number of rattles it has on its tail.

Rattlesnakes are not the longest snake in Idaho, but they are the beefiest. They can reach a length of around five feet, and their bodies are bigger around than Idaho's other snakes. Western rattlesnakes come in many colors. They may be brown, tan, gray or olive green with brown or black patches. Their bellies are usually cream or yellow colored.

Rattlesnakes are the only dangerous snake in Idaho. They use venom to kill their prey. Rattlesnakes eat mostly mice, ground squirrels and small rabbits, but they may also eat lizards or birds. Rattlesnakes have good senses to find their prey. They use their forked tongue to pick up a prey's scent. They flick their tongue out, pick up smells and then pass the tongue over a special organ on the roof of the mouth called the Jacobson's organ. This helps the snake to smell its prey, but rattlesnakes have something else that helps them find prey. They have two heat-sensitive pits on their heads between the nose and mouth. These pits let the snake "see" their prey in total darkness. A rattlesnake can sense prey that is 1/10 of a degree warmer than its surroundings! When a rattlesnake senses prey, it grabs the prey by the mouth. It has long, hollow fangs that it uses to inject venom in the prey. The fangs are folded up against the roof of the mouth when the mouth is closed. When striking, the fangs swing down to inject the venom.

Rattlesnakes are one of the few snakes that give birth to their young. Three to 12 young are born between August and October. The young rattlesnakes are born without a rattle. When they are one to two weeks old, they shed their skin for the first time. This is when the rattle gets its first ring.

Rattlesnakes are fascinating. Watch for them during the day during the spring and cool summer days. They are active at night during the hot summer months.

Photo Courtesy Evin Oneale

What is a Reptile?

When you think of a reptile, you may think of a snake or lizard. Maybe a turtle pops into your mind. People often think of reptiles as scaly, cold-blooded animals that usually lay eggs.

Some scientists that group, or classify, animals are starting to look at reptiles a bit differently. Some divide reptiles into four groups. The first group includes turtles. The second group is lizards and snakes, and the third group is crocodiles and their relatives. The last group is the birds! Scientists put birds in this group because bird skulls and eggs are so similar to reptiles. These scientists believe the similarities between bird skulls and eggs and reptile skulls and eggs are more important than the differences between the two. They are not as concerned about the fact that birds are warm-blooded, and all other reptiles are cold-blooded.

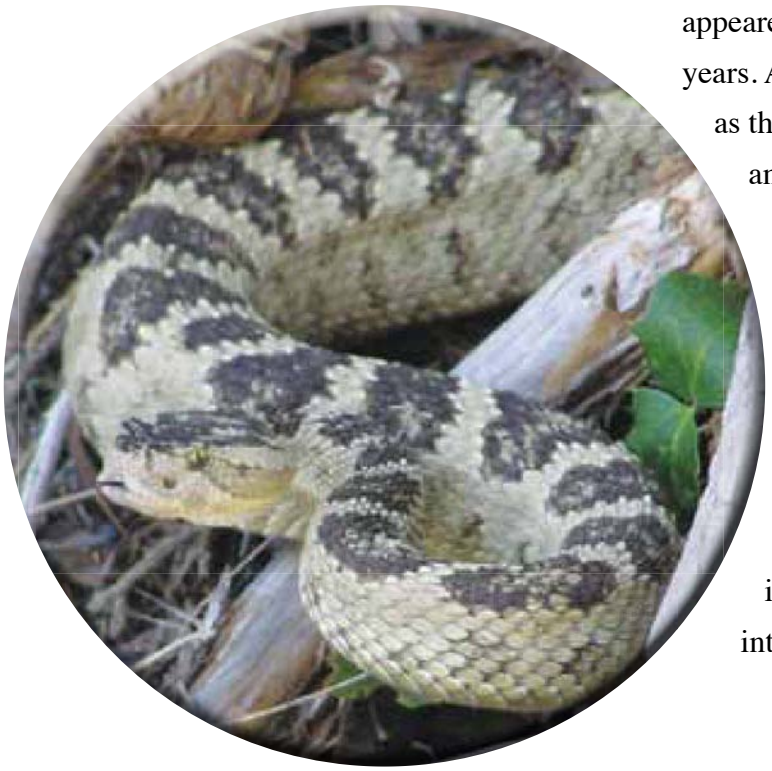


Photo courtesy Scott Farnsworth

Believe it or not, when we look at the cells of crocodiles, birds, and lizards, crocodiles actually have more in common with birds than they do with lizards. You may be wondering about the feathers on birds. They don't look much like scales, but they really are scales that have changed over time to help birds fly.

If we leave birds out of the reptile group, reptiles are found on every continent except Antarctica. Most reptiles have a hard time staying warm. They can't make heat inside their bodies, so Antarctica would just be a giant freezer and graveyard for them. It is too cold! Since Idaho has pretty cold winters, we don't have as many reptiles as some other states. We have one turtle, 10 lizards and 11 snakes.

Reptiles have been on the Earth for a long time. About 250 million years ago, the first reptiles appeared. They ruled the planet for 200 million years. All of our birds and mammals have reptiles as their ancestors. I bet you can guess who their ancestors are. They were the largest land animals ever - dinosaurs!

Reptiles come in all shapes and sizes. They can be really big. Saltwater crocodiles can grow to be over 23 feet long. Other reptiles are small. A gecko that lives on the British Virgin Islands is less than an inch long! Reptiles may come in different shapes and sizes, but they are all interesting creatures!

What's Herpetology?

Have you ever heard of herpetology (her-pe-TOL-e-jee)? 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.

Amphibians and reptiles may look a bit alike and share a few things in common. They are both cold-blooded, most have legs and most lay eggs. But they really are quite different. Let's look at some of the differences.

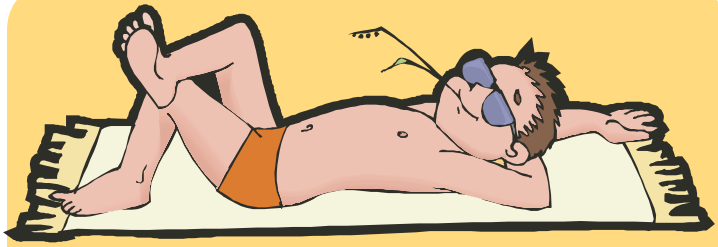
Amphibians have a thin, moist skin. Reptiles have a tough, thick skin covered with scales. Amphibians have different stages in their development – egg, larvae (LAR-vee) and adult. They go through a metamorphosis. Reptiles do not go through this sort of change. Amphibians need a wet place to lay their eggs. Reptiles lay their eggs in dry places.

With so many differences, how did amphibians and reptiles get grouped together? They were grouped together before people knew much about them. With modern science, people know a lot more about animals then they did in the past. Scientists can look inside cells and see how animals are put together. As we learn more and more about animals, we may discover other ways amphibians and reptiles are different from or similar to each other.

If you want to go "herping" and look for reptiles or amphibians, here are some things to keep in mind. Herps can bite! Use a net and wear thick leather gloves when handling animals and NEVER handle a rattlesnake. Herps are most active during the spring breeding season, so this is the time you will be most likely to see them. Never reach under a rock or log with your bare hands. 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 at night and reptiles 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 need a bit of water in the box. Once you are done looking at your herp, put it back where you found it. Although it may seem fun to keep herps as pets, it can be tricky keeping them alive. Wild animals belong in the wild.

Photo Courtesy Evin Oneale



Warm-blooded

Warm-blooded animals have body temperatures that don't change with the weather. Their temperatures stay about the same in cold weather and in hot weather. Mammals and birds are warm-blooded.

Warm-blooded animals can make heat if they are cold, and cool themselves if they are hot. To make heat, warm-blooded animals turn the food they eat into energy. Only a small amount of the food warm-blooded animals eat is turned into muscle. The rest is used to keep its body temperature even. Some animals shiver to help keep their bodies warm. You may also hear people call warm-blooded animals endothermic (en-do-THER-mik). Endo means inside, and therm means heat. So, an endothermic animal makes heat inside its body.

To keep cool, endotherms sweat, pant or move to a cool place. Only mammals can sweat. People and monkeys have sweat glands all over their bodies. Dogs and cats only have sweat glands on their feet, so they need to pant if they get too hot.

As long as they can find enough food, warm-blooded animals can be found in almost any habitat on Earth. They can be found in arctic regions, hot tropical areas and even swimming in the oceans!

Cold-blooded

Cold-blooded animals really don't have cold blood. It means they are the same temperature as their surroundings. If a lizard is sitting on sand that is 60 degrees, the lizard will also be 60 degrees. Lizards, turtles, insects, snakes, fish and frogs are cold-blooded animals.

Some people call cold-blooded animals ectothermic (ek-to-THER-mik). Ecto means outside, and therm means heat. Ectothermic animals get heat from outside their bodies. You may also hear people call them poikilotherms (poy-KEE-lo-therms). This is just a fancy word for a cold-blooded animal.

Cold-blooded animals are most active in warm weather. Cold weather slows down their muscles. That's why cold-blooded animals lay or bask in the sun. The sun helps to warm them up. If they get too warm, they need to move to a shady spot or go in a burrow. Colder weather can kill cold-blooded animals. They need to migrate to warmer places or move underground. Some cold-blooded animals, like bees and dragonflies, shiver to stay warm.

Cold-blooded animals have a real advantage in deserts. Deserts are warmer, and food is often harder to find. Cold-blooded animals don't need to eat as much as warm-blooded animals. Sometimes they can go months between meals. This is why you often see more cold-blooded animals living in deserts than warm-blooded animals.

Photo courtesy Colin Howe

Oooouuuuuch!

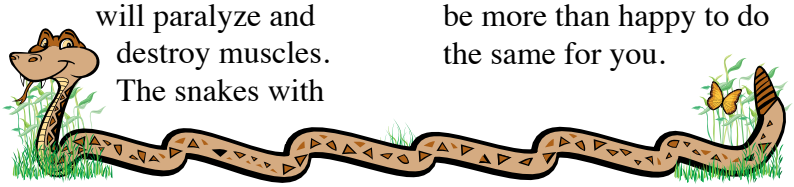
Many animals use venom for protection or as a way to capture prey. Ants, bees, lizards and snakes are just some of the animals that may use venom. Venoms are chemicals that have toxic effects in the bodies of other animals.

If you have even been stung by a wasp, you have experienced one effect of venom – pain! Wasps, bees and the Gila monster lizard have venoms that cause sudden and strong pain. These venoms are used mainly for protection. Once an animal has experienced the sting of a bee, it usually will think twice before messing with bees again!

Snakes make venoms that are used mainly to capture prey. These venoms will either paralyze muscles or cause bleeding to destroy muscles. Snake venoms also have a bit of a digestive function. They start to break down the prey so it will be easier to eat, but this is not as important as making sure the prey cannot run away. Pit vipers, like our rattlesnake, have the most complex venoms of any snakes. Their venom will paralyze and destroy muscles. The snakes with the deadliest venoms are sea snakes. Their venom would instantly kill a human. Luckily for us, sea snakes are not aggressive snakes and rarely bite humans. Sometimes a snake will bite and not inject venom. Snakes can and do control the amount of venom that is released during a bite.

Most snakes are not aggressive. Many people are bitten because they were handling a snake. If you or someone you know is bitten by a venomous snake, stay calm. This will help to slow how quickly the venom spreads. Don't try to cut the wound or suck the venom out with your mouth. This will cause more damage. The best thing to do is wash the bite with soap and water and get to a hospital as soon as possible. A hospital will have antivenin. Antivenin will help to stop the affects of the venom.

The best way to avoid a snake bite is to avoid snakes! When you are outside, watch where you step and put your hands. Remember snakes are not aggressive. Leave them alone and they will be more than happy to do the same for you.



Be Outside, It's Summer!

It's May and school is almost out. How are you going to spend your summer? Why not plan to spend a lot of your summer outside? Put on some sunscreen, grab your water bottle and head outdoors! Idaho has great places to explore both in your own backyard and neighborhood as well as forests, parks, and wilderness. Get your family or friends and plan some fun outdoor activities. Time outside will help you stay healthy and relaxed plus help you become more creative and observant. Here are a few ideas for summer fun:

Go fishing
Take a hike
Go camping
Paddle a canoe
Ride your bike
Build a sand castle
Go swimming
Stay up late and look the stars
Plant a garden
or a flower bed
Draw with sidewalk chalk
Build a fort
Play in the sprinkler
Watch bugs
Read a book outside
Lie on your back and watch the clouds
Get up early and watch the sunrise
Keep an outdoor journal
Climb a tree
Play kick-the-can with your friends
Draw or paint outside
Go bird watching
Be an outdoor photographer
Ride your scooter
Visit a nature center
Go on a night hike
Roast marshmallows over a campfire
Keep a summer wildlife list
Have a picnic
Go berry-picking
Play marbles

For more ideas check out www.beoutsideidaho.org. Have a great summer!

Is it a Rattlesnake?

All of Idaho's snakes use a form of camouflage to help them disappear against rocks and soil. One of Idaho's snakes also uses something else for protection. It pretends to be a rattlesnake! This trickster is the gopher snake – sometimes called the bull snake.

Gopher snakes use a special kind of camouflage called mimicry (mim-ik-ree). Mimicry is when an animal looks like or acts like another animal. Not very many animals want to mess with rattlesnakes. Their bite could mean death! Pretending to be a rattlesnake is a great way for gopher snakes to protect themselves when they feel threatened. They coil up, hiss and shake their tails. When the tail hits dry leaves or grass, it sounds like a rattlesnake! Pretending to be a rattlesnake may scare away predators, but there can be a down side. Unfortunately, sometimes humans kill gopher snakes thinking they are rattlesnakes. How do you tell them apart?

First, grab some binoculars – getting too close is NOT a good idea. Gopher snakes' colors are similar to rattlesnakes, and they live in the same habitats. So color or location is not the way to tell them apart. Gopher snakes are Idaho's longest snake, and their bodies will look thinner than a rattlesnake's body, but this is still not a reliable way to tell them apart. Start by looking at the tail. Gopher snakes do not have a rattle like the rattlesnake, but be careful with this. Remember, rattlesnakes' rattles may break off, or a rattlesnake may lose the tip of its tail. Just because you don't see a rattle doesn't mean the snake is not a rattlesnake! The head is the best place to look to tell rattlesnakes and gopher snakes apart. Rattlesnakes have pupils that are vertical. They look a bit like slits. Gopher snakes' pupils are round. Rattlesnakes also have a triangular-shaped head, whereas gopher snakes' heads are more oval-shaped.

Photo courtesy Scott Farnsworth

Keep an eye out for the tricky gopher snake. Pretending to be a rattlesnake sure is a clever way to scare away enemies!

Animal Hide and Seek

Photo courtesy Martha Wackenhut

Sometimes sticks walk, leaves hop and rocks slither. Of course, these things really can't hop or crawl, but sometimes it sure looks like they're moving. Often when we are seeing a rock slither or crawl, it's actually an animal.

Camouflage (KAM-e-flazh) means to blend in with your surroundings and hide. It is a type of disguise. Camouflage may be a certain color, pattern of colors, or a special shape that fools the eye. Camouflage may help an animal to hide, help a hunter to sneak up on its prey, or both.

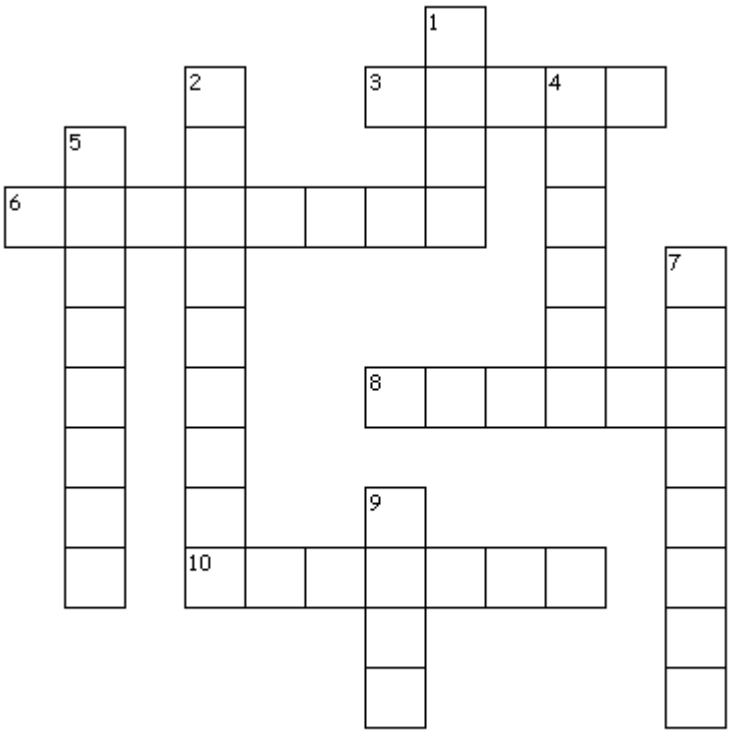
Rattlesnakes camouflage themselves very well against the rocky ground where they live. Looking like rocks and dirt is one way rattlesnakes protect themselves from other animals. Their great camouflage also helps rattlesnakes sneak up on their prey.

Many animals change their colors with the seasons. Animals that change color to match their background are using cryptic (KRIP-tik) coloration. This is what weasels and snowshoe hares do. When snow starts to fall, their coats gradually turn white to match.

Animals may even change colors and patterns throughout their lives. Deer fawns are born with tan coats that have white spots. The spots match the sun and shade that dapple the tall grasses where the fawns hide. As long as the fawns do not move, predators will have a difficult time seeing them. As deer fawns grow older and can run faster to escape danger, the spots fade away.

Do you think zebras are camouflaged? They are not camouflaged for our eyes. Their black and white stripes stick out against the grasses of Africa, but that is not true for lions' eyes. Lions have a difficult time seeing some colors. Grasses and trees look like shades of gray, so the zebras' stripes help them to blend into the tall grasses. This helps the zebras avoid becoming a lion's meal. Whether hunter or hunted, camouflage helps animals to survive.

Rattler Puzzler



WORDS

Birth
Ectotherm
Gopher
Mimicry
Paralyze
Pits
Reptiles
Ring
Twitch
Venomous

ACROSS

3. Rattlesnakes give _____ to their young.
6. Rattlesnakes are _____.
8. The _____ snake pretends to be a rattlesnake to scare away enemies.
10. This is when an animal looks like or acts like another animal.

DOWN

1. The _____on a rattlesnake's face help it to "see" the body heat of its prey.
2. This is another word for a cold-blooded animal.
4. A rattlesnake can _____ its tail 20 to 100 times per second.
5. Rattlesnakes are Idaho's only _____ snake.
7. The venom of a rattlesnake will _____ and destroy the muscles of an animal.
9. Every time a rattlesnake sheds its skin a _____ is added to the rattle.

WILDLIFE EXPRESS

Volume 26 • Issue 9 • Rattlesnake • May 2010

Wildlife Express is published nine times a year (September-May) by the Idaho Department of Fish and Game. Classroom subscriptions and an Educator's Guide are available for $35.00 per year and includes a classroom set of 30 copies mailed to your school each month. Subscriptions of 10 copies or less are available for $20.00. This publication is made possible through the sale of wildlife license plates.

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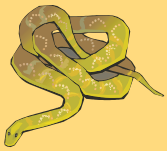

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WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to the address printed above!