



Volume 29/Issue 9

Gopher Snake

May 2016

# Gopher Snake

**Inside:**  
**Reptiles**  
**Grabbing Grub**  
**Go Herping!**



# Gopher Snake



© Kameron Perensovich, CC BY-SA 2.0

**H**ave you ever heard of a bullsnake or blowsnake? These are other names for the gopher snake. People gave the gopher snake these names because of the way it behaves. Sometimes when a gopher snake feels threatened, it will flatten its head, puff out its body and coil up. It may make a hissing sound. Not all gopher snakes act this way; some are docile. Gopher snakes have different temperaments just like people.

Gopher snakes may even strike and shake their tails when threatened. If the shaking tail hits dried leaves or gravel, it makes a rattling sound. Can you guess what snake they are trying to act like or mimic? They are acting like rattlesnakes! Acting like a rattlesnake may seem like a good way for a gopher snake to protect itself from predators, but it may not be good protection from humans. Sometimes harmless gopher snakes are killed because people think they are rattlesnakes.

Gopher snakes even look a bit like rattlesnakes. They have a light colored back with brown, black or orange colored blotches. So, how can you tell the two snakes apart? Gopher snakes are slimmer than rattlesnakes. Gopher snakes have round eye pupils; rattlesnakes have vertical eye pupils. Gopher snakes have a narrow more pointed snout; rattlesnakes have a triangle-shaped head. Gopher snakes also do not have rattles on their tails.

Gopher snakes are great burrowers. Their pointed heads and large scale on the tip of their snouts help them to burrow

in the ground. They may spend as much as 90% of their time in a burrow or den. Gopher snakes like to be out and about during the day, but if the weather is cold or too hot, they will rest in burrows. They also spend the cold winter months hibernating in burrows and dens.

Gopher snakes come out of their hibernation dens around April or May. They then start looking for mates. Females lay eggs in June or July. Often, more than one gopher snake will deposit eggs in the same den. Good places to lay eggs can be hard to find. Twelve to 18 inch long hatchlings emerge in August or September. If they can avoid predators like red-tailed hawks, foxes and coyotes, they may live about 15 years in the wild.

Have you been able to figure out what gopher snakes like to eat? They eat lots of rodents, like gophers, ground squirrels, mice and voles. They also like to eat rabbits, birds, eggs and lizards. Young gopher snakes eat more lizards and insects than older gopher snakes. Gopher snakes capture food on the ground, in burrows, and in trees! Gopher snakes are able to climb lower trees and shrubs to eat eggs and nestling birds.

Keep an eye out for Idaho's longest snake. They may grow to be up to five feet long. They are found in many habitats from farmlands to deserts to forests. They are not found high in the mountains or in the panhandle of Idaho.

# REPTILES

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 would be crocodiles and their relatives. The last group is the birds!

Some scientists put birds in this group because bird skulls and eggs are so similar to those of 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. 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. What do you think? Do you think birds should be in the reptile group? More evidence may be needed before a clear answer is reached.

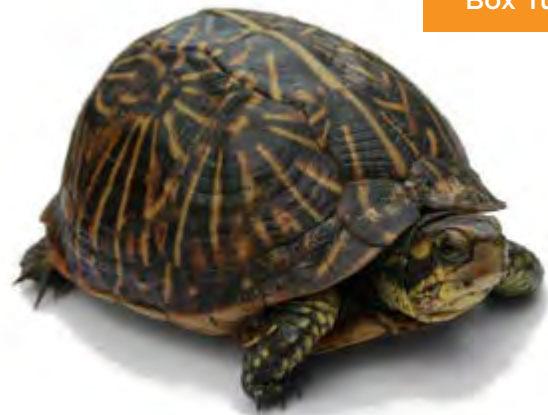
For now, let's leave birds out of the reptile group and take a closer look at what makes a reptile a reptile. You can find reptiles living on every continent except Antarctica. Most reptiles have a hard time staying warm. They can't make heat inside their bodies, so Antarctica would just be a giant freezer 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.

Most reptiles lay eggs but not all. In Idaho, we have two lizards, the alligator and the short-horned, that give birth to live young. We also have four snakes that give birth to live young. The rubber boa, western rattlesnake, common garter snake and terrestrial garter snake all give birth to their young. By developing in the mother instead of in an egg, the young are better protected from predators and weather.

Reptiles are covered by a thick skin protected by scales. Scales are similar to your fingernails. They are made up of dead cells and form a kind of tough armor around the body. Scales offer protection from the sun and help reptiles retain water in their bodies. Lizards and snakes have scales on their bodies, and turtles have scales on their shells.

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, sizes and live in many different habitats. One thing they all have in common is they are all interesting creatures!

Common  
Box Turtle



If you hear an animal is cold-blooded, does that mean the animal's blood is actually cold? Well, not really. It means they are the same temperature as their surroundings. If a snake is lying on sand that is 60 degrees, the snake will also be 60 degrees. Snakes, lizards, turtles, insects, fishes and frogs are all cold-blooded animals.

# Do snakes really have cold blood?

ectothermic

poikilotherm



Gopher Snake

© Wildlife Wanderer, CC BY-NC-ND 2.0, Flickr

Some people call cold-blooded animals ectothermic (ek-to-THER-mik) animals. 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.

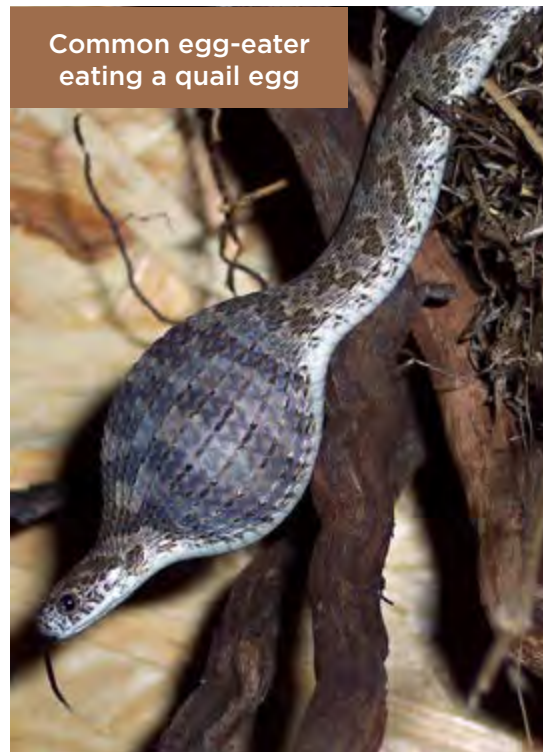
Calling an animal cold-blooded may be a bit confusing. Next time you are talking about a cold-blooded animal, how about calling it an ectothermic animal or a poikilotherm? You may teach others a new word and teach them the true meaning of the term "cold-blooded."

# Grabbing Grub

Catching prey can be tricky for snakes. It's a challenge to catch animals without any legs to chase them down. How about trying to grab ahold of a dashing mouse without feet to pounce? Because of their lack of limbs, snakes have developed some intriguing methods to capture their prey.

Some snakes use venom to capture prey. Venoms are chemicals that have toxic effects in the bodies of other animals. Snake venoms 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.

Other snakes constrict or squeeze their prey to death. This is how a gopher snake kills its prey. Constricting snakes strike and grab animals with their mouths. Then they wrap their bodies around the animal and squeeze. Some people think



Common egg-eater eating a quail egg

By de:Benutzer:Mond76 (Own work) [Public domain], via Wikimedia Commons



A carpet snake eating a chicken

By Alikai, CC BY 2.0, via Wikimedia Commons

that snakes crush the animal to death, but they don't. The snakes don't even break the animal's bones. They hold tightly to prevent the animal from breathing or put so much pressure on the chest cavity that the heart stops beating and blood stops flowing. Blood cannot get to the brain. Snakes monitor their prey's heartbeat, so they know when their prey is dead.

Other snakes, like garter snakes, don't use venom or constriction to subdue their prey. They hunt by peering and craning their necks and bodies around obstacles in their habitat. Once they locate prey, they use their quick reflexes to ambush the prey and grab it with their sharp teeth. Their saliva is slightly toxic to their prey, so it helps to immobilize the prey. This makes it easier for garter snakes to swallow their meal.

Even with a lack of limbs, snakes are efficient predators. Whether they use venoms, constriction or a stealthy grab and go method, snakes have ways to keep their prey from slipping away.

# Animal Hide & Seek

Pacific Gopher Snake

sfbaywalk, CC BY 2.0, Flickr

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. The brown, tan and black colors on gopher snakes help them to blend in with rocks and soil. The outlines of their bodies blur, and they seem to disappear. Camouflage may help an animal to hide, help a hunter to sneak up on its prey, or both.

Many animals change their colors with the seasons. Animals that change color to match their background are using cryptic (KRIP-tik) coloration. When snow starts to fall, the snowshoe hare's coat gradually turns white to match its habitat. Then in the spring, the snowshoe hare's white fur will fall out and be

replaced with a brown-colored fur. No matter what the season happens to be, the snowshoe hare has a coat that helps it to hide from predators.

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 this 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. The stripes also make it harder for a lion to pick out one animal to attack. All those stripes blur together and make the zebras look like one large animal. Whether hunter or hunted, camouflage helps animals to survive.

Plains Zebras



By Taken & submitted by Paul Maritz, CC-BY-SA-3.0, via Wikimedia Commons

# Snakes—Sinister or Sacred?

Throughout time, snakes have conjured deep feelings within people. Snakes have played many roles in myths, legends and literature around the world. While some people may see snakes as evil, others see them as good. Snakes have represented both life and death.

Sometimes snakes are seen as a life force associated with water and the earth. Snakes live on land, in burrows and in water. Many people thought snakes were directly connected to water, rain or the earth. Ancient Chinese thought that snakes brought life-giving rain. During a rainstorm, water would flood into the snake burrows and force the snakes to crawl up on land. The people saw the snakes when it rained and thought the snakes were responsible for the rain falling. In Australia, India, Africa and North America, some native people connected snakes with rainbows.



The reverse side of the throne of Pharaoh Tutankhamun (1346-1337 BCE) with four golden uraeus cobra figures.

By GoShow, CC BY-SA 3.0, via Wikimedia Commons

As snakes grow, they shed their skin revealing a new skin underneath. Because of this, snakes have been seen as symbols of rebirth, immortality and healing. Ancient Greeks respected snakes; they thought snakes were sacred. The Greek God Asclepius carried a staff with one or two snakes wrapped around it. This symbol, the staff wrapped in snakes, has become the symbol for doctors today. Both Ancient Greeks and Egyptians thought the snake represented ever-lasting life. The Greek symbol for eternity is a snake curled into a circle biting its own tail.

Sometimes snakes are seen as frightening or evil. They are often portrayed as enemies of humans or keepers of the underworld. Maybe this is because some snakes are venomous, and their bites are dangerous. Snakes are often depicted in Aboriginal paintings in Australia. Australia has some of the deadliest snakes in the world. In Norse mythology, the monster Nidhogg, or dread biter, was an evil serpent. It coiled around one of the roots of the World Tree. Nidhogg was forever trying to kill the tree by biting or squeezing the roots.

In medieval Europe, people were told tales of the basilisk. The basilisk could kill people just by looking or breathing on them. The basilisk was also used in the book *Harry Potter and the Chamber of Secrets* to do the bidding of the evil Lord Voldemort.

Snakes have played many roles in myths, legends and literature—some good, some bad. No doubt these stories have influenced people's feelings toward snakes. How do you feel about snakes?



Rod of Asclepius

By Original: CatherinMunro derivative work: Hazmat2 (This file was derived from: Rod of asclepius.png) [CC BY-SA 3.0 (<http://creativecommons.org/licenses/by-sa/3.0/>)], via Wikimedia Commons

# Go Herping!



**BE OUTSIDE**  
INAHO CHILDREN IN NATURE

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, so now is a good time to go looking. 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

**H**ave you ever heard of herpetology?

In Greek, herp means creeping, so

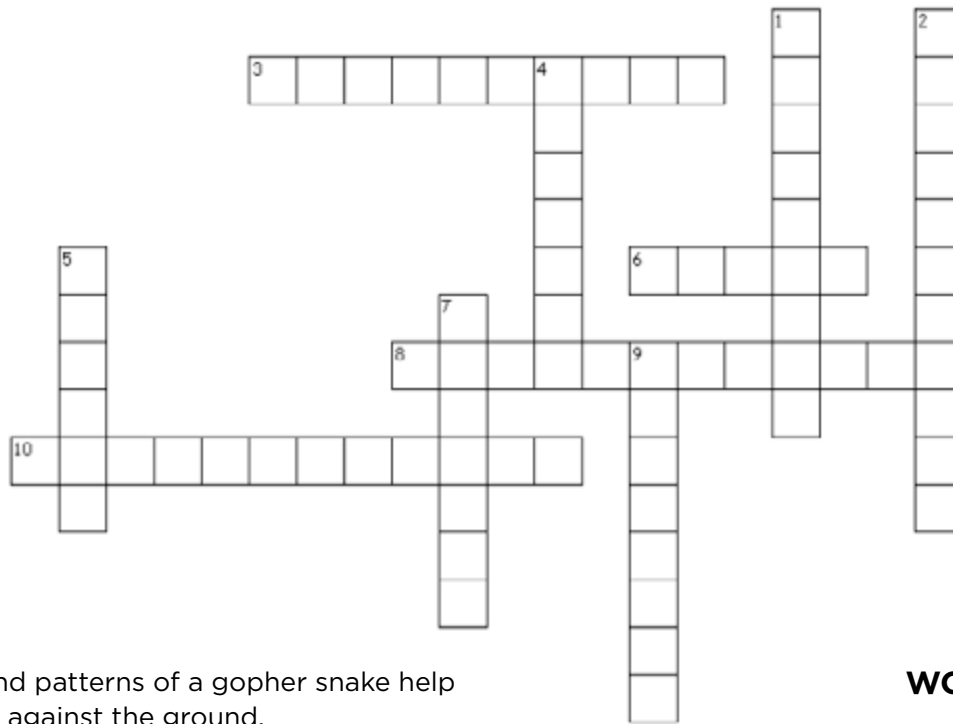
amphibians when the sun is going down and at night; reptiles are usually seen during the day.

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 and 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. Although it may seem fun to keep herps as pets, it can be tricky keeping them alive. Wild animals belong in the wild.

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.



# Gopher Snake Criss-Cross Puzzle



## Across

3. The color and patterns of a gopher snake help \_\_\_\_\_ it against the ground.
6. The shape of a gopher snake's eye pupil.
8. The method gopher snakes use to kill prey.
10. Another word for a cold-blooded animal.

## Down

1. Gopher snakes do this during the cold winter.
2. Gopher snakes may act like this snake.
4. Young gopher snakes eat more \_\_\_\_\_ and insects than older gopher snakes.
5. Gopher snakes \_\_\_\_\_ in the ground.
7. Gopher snakes eat lots of \_\_\_\_\_.
9. Snakes belong to this class of animals.

## WORDS

- BURROW  
CAMOUFLAGE  
CONstriction  
HIBERNATE  
LIZARDS  
POIKILOtherM  
RATTLESNAKE  
REPTILES  
RODENTS  
ROUND

## WILDLIFE EXPRESS

Volume 29 • Issue 9 • Gopher Snake • May 2016

Wildlife Express is published nine times a year  
(September-May)  
by the Idaho Department of Fish and Game

**Lead Writer:** Adare Evans

**Layout:** Kelly Kennedy Yokoyama

**Contributors:** Lori Adams, Vicky Runnoe



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:

[adare.evans@idfg.idaho.gov](mailto:adare.evans@idfg.idaho.gov)

or

**Wildlife Express, Idaho Fish and Game**  
PO Box 25, Boise, ID 83707