



NATURE EXPLORERS

# Ohio Wildlife:

A Coloring Field Guide



By  
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Illustrated by  
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# Introduction

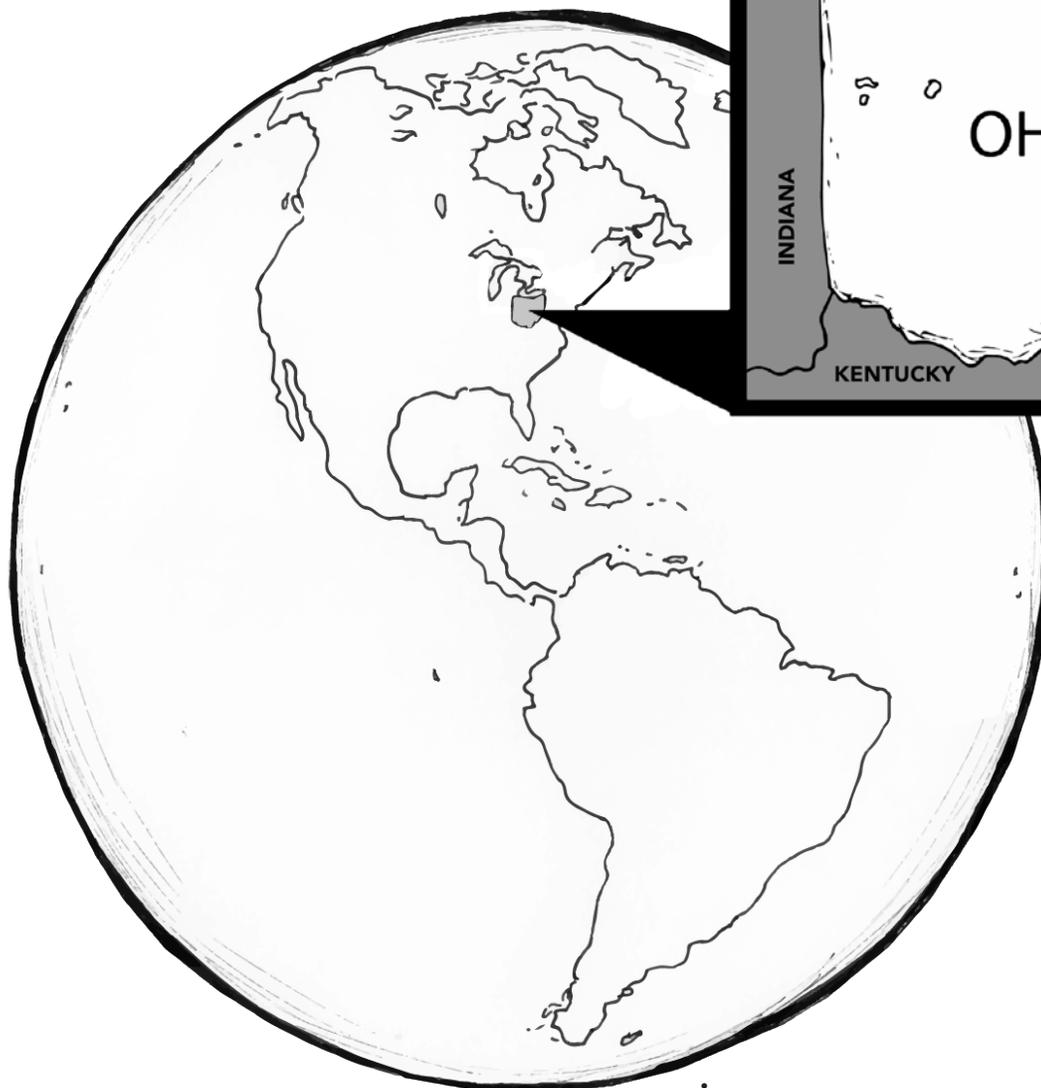
Ohio is a diverse state in the northern United States of America. It is bordered by Michigan and Lake Erie to the north, Pennsylvania and West Virginia to the east, Kentucky and West Virginia to the south, and Indiana to the west.

Southern and eastern Ohio are mostly covered with forests. There is high country there, called the Appalachian Plateau. All the rivers and streams of southern and eastern Ohio flow into the Ohio River, which flows to the Mississippi River and eventually into the Gulf of Mexico.

The rivers and streams in northern Ohio all flow into Lake Erie, which is a giant freshwater lake located between the countries of the United States and Canada. Lake Erie is shallower, warmer, and has more fish than the other four Great Lakes.

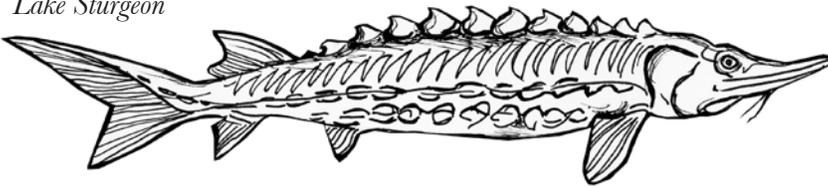
Before the 1800's, most of northwest Ohio was a huge wetland, known as The Great Black Swamp. The Great Black Swamp stretched from the eastern end of Lake Erie all the way to the border between Ohio and Indiana.

The variety of habitats, abundance of fresh water, and large areas of woodlands in parts of Ohio make it an excellent place to view wildlife. Use this book as a guide to help you learn about both common and rare Ohio animals.

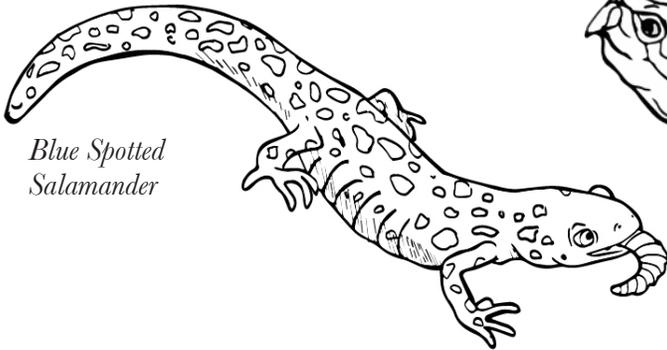


*To find Ohio on a globe, look for the Great Lakes in North America.*

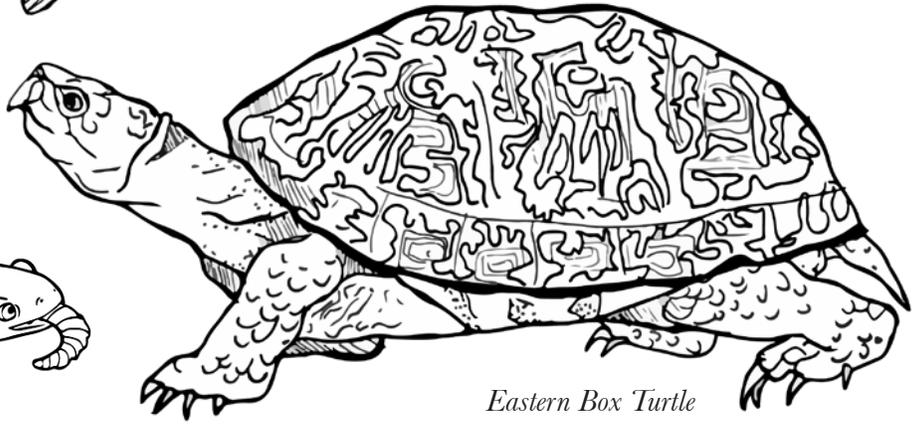
*Lake Sturgeon*



*Blue Spotted Salamander*



*Eastern Box Turtle*

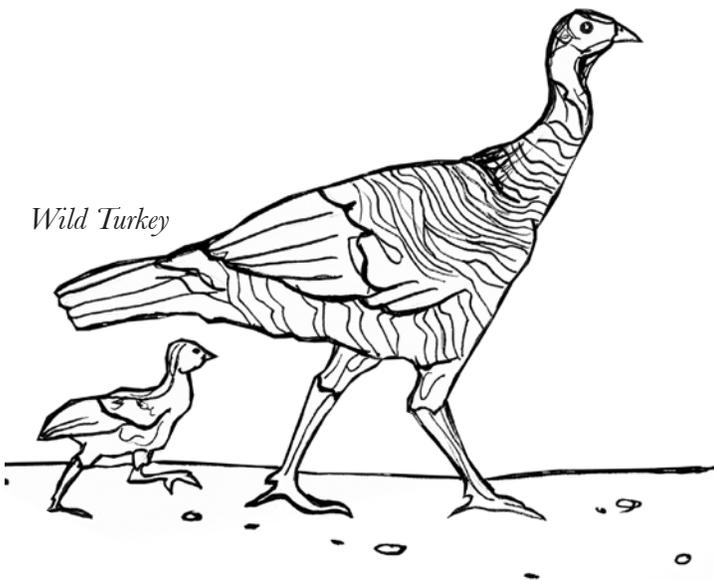


All animals can be divided into two groups: vertebrates and invertebrates. Vertebrates have backbones, and invertebrates do not. There are five main classes of vertebrates: fish, amphibians, reptiles, birds, and mammals.

The animals in this book are divided into vertebrate groups. Nurture your nature knowledge by reading about each animal that you color. If there is a word that you don't understand, check the dictionary in the back.

Find out more by looking in guidebooks, starting a species list, and using the checklists provided to make observations of the animals that you see. Complete the optional activities in each section to add art, science, and games into your life as a young naturalist.

*Wild Turkey*



*White-Tailed Deer*



# Conservation

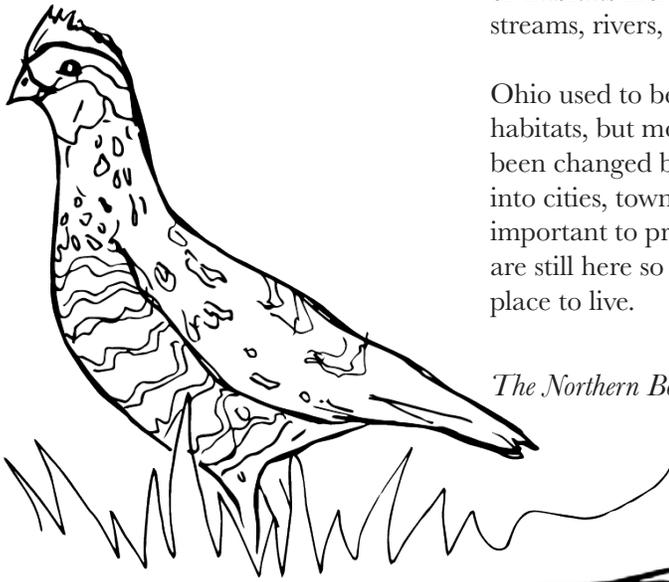
## WILDLIFE NEEDS A PLACE TO LIVE

Habitat is the natural home or environment of an animal. Ohio has many types of habitats that provide homes for different species of wildlife. Salamanders live in wetlands, while badgers prefer drier environments like prairies and oak savannas. Other types of habitats include forests and even streams, rivers, and lakes.

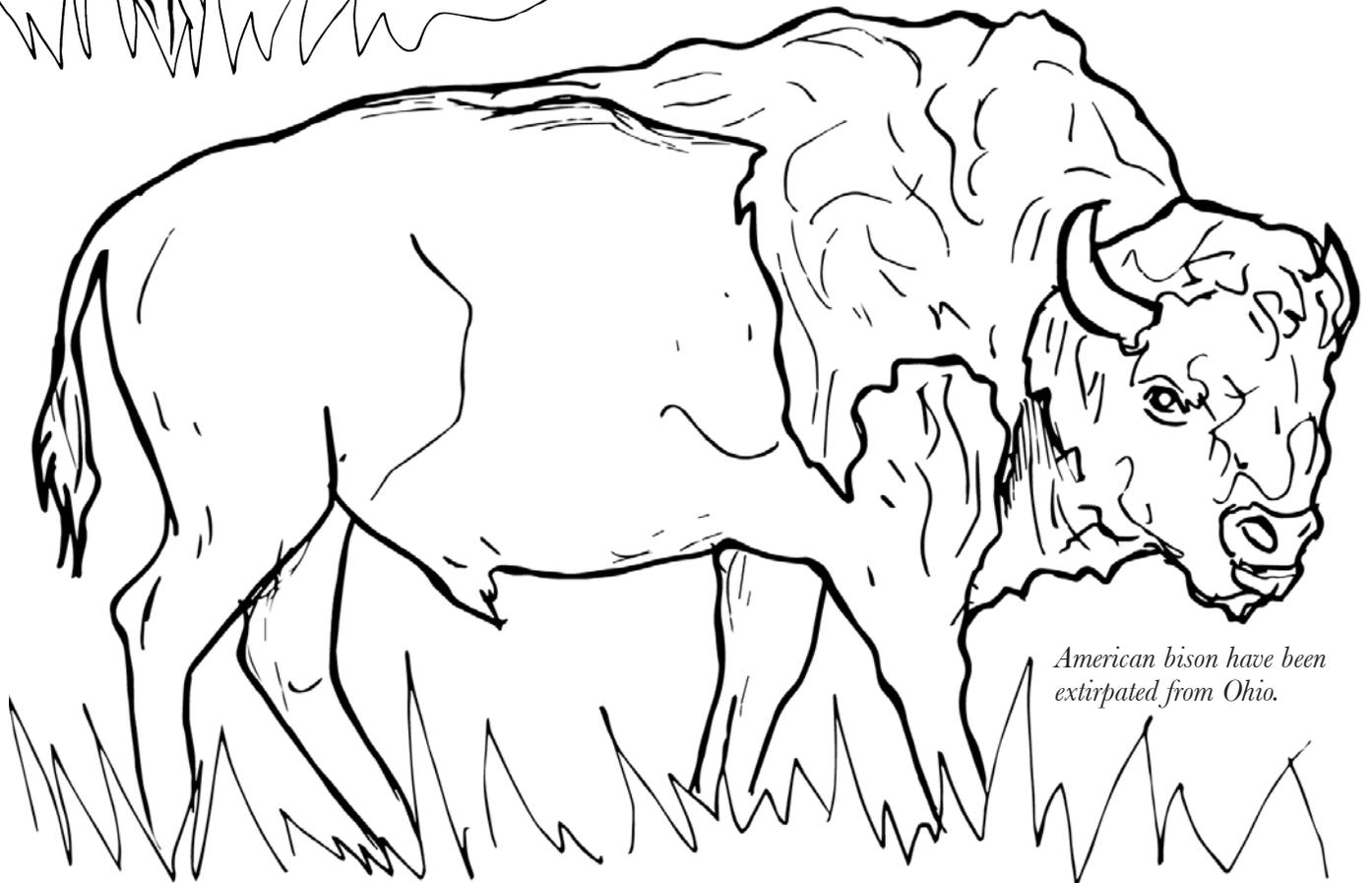
Ohio used to be entirely natural habitats, but most of those areas have been changed by humans and turned into cities, towns, and farms. It is important to protect the habitats that are still here so that wildlife have a place to live.

Some animals that used to live in Ohio are now extirpated, meaning they don't live here anymore because there isn't enough habitat left for them. These species include American bison, eastern timber wolves, and throughout much of the state bobwhite quails.

There are other species still found in Ohio whose populations are low because of habitat loss. If their habitat isn't protected and restored (re-built), we could lose them too. These species include the Kirtland's Warbler, copperbelly water snake, and Karner blue butterfly.



*The Northern Bobwhite quail, once common in Ohio, is now a species of concern.*



*American bison have been extirpated from Ohio.*

## WHO HELPS WILDLIFE?

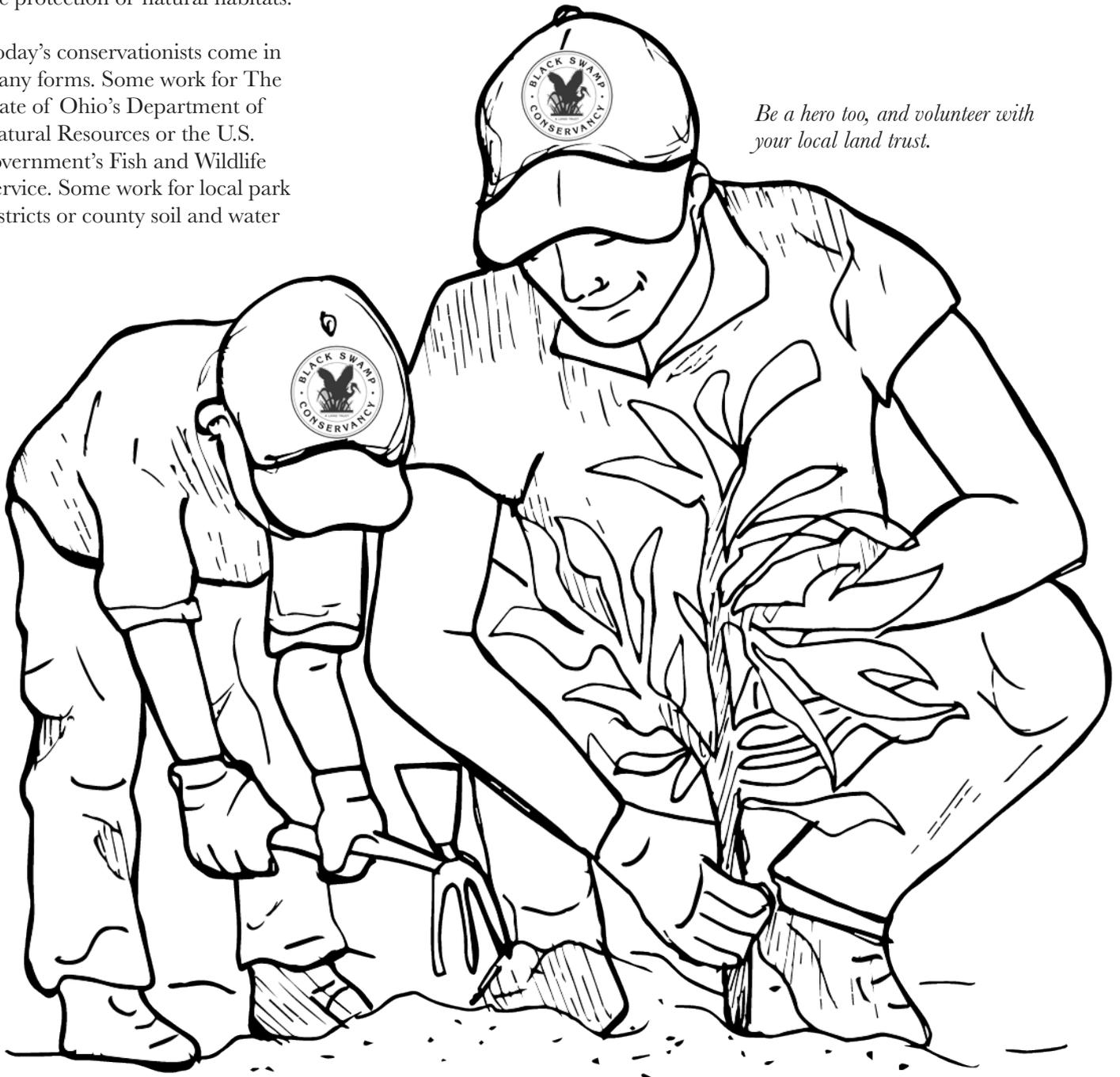
Luckily, there are conservationists (our heroes!) who work to preserve, protect and even restore habitats. The conservation movement dates back to the 1800s when leaders like Henry David Thoreau, Ralph Waldo Emerson, and John Muir worked for the protection of natural habitats.

Today's conservationists come in many forms. Some work for The State of Ohio's Department of Natural Resources or the U.S. government's Fish and Wildlife Service. Some work for local park districts or county soil and water

conservation districts. Others are with land trusts or conservancies, which are nonprofit organizations that work to save land. There are 24 land trusts in Ohio, and they protect more than 366,000 acres of land (an acre is about the same size as a football field).

You can be a conservationist, too! By volunteering with your local park district or land trust, you can help protect and restore habitat for wildlife. To find the land trust in your community, go to: [www.findalandtrust.org](http://www.findalandtrust.org)

*Be a hero too, and volunteer with your local land trust.*



# Amphibians

## WHAT IS AN AMPHIBIAN?

Amphibians are cold-blooded vertebrates with moist skin that usually lay eggs in the water. The babies that come out of the slimy, unshelled eggs often don't look like their parents. Instead, they look like a small fish, and they breathe through gills. In a frog, this larval stage is called a tadpole. Through a process called metamorphosis, their bodies change shape and they grow lungs.

Being cold-blooded is also called being ectothermic. It means that their body temperature changes with the temperature outside. If it is hot in their surroundings, their body temperature will be hot, and if it is cold, their body temperature will be cold.

Amphibians can breathe through their absorbent skin and need fresh water to keep it moist. Amphibians are divided into three main groups: frogs, caecilians, and salamanders.

## OHIO AMPHIBIANS

Ohio is home to 38 different kinds of amphibians: 14 species of frogs and 24 species of salamanders.



## THE STUDY OF AMPHIBIANS

Biology is the study of life. Zoology is the study of animals. Herpetology is a branch of zoology that means the study of reptiles and amphibians.

## AMPHIBIAN ENCOUNTERS

Be careful when handling amphibians. There are some that excrete toxins that can cause a reaction in humans. Always wash your hands before and after touching amphibians. Their thin skin is very sensitive, and everyday things that we use like soap, lotion, bug-spray, and sunscreen can be harmful to them.

Amphibians are indicator species. They are important to a balanced food chain and are found in healthy ecosystems. Do not capture them to keep as pets, and do not release non-native pets into the wild.

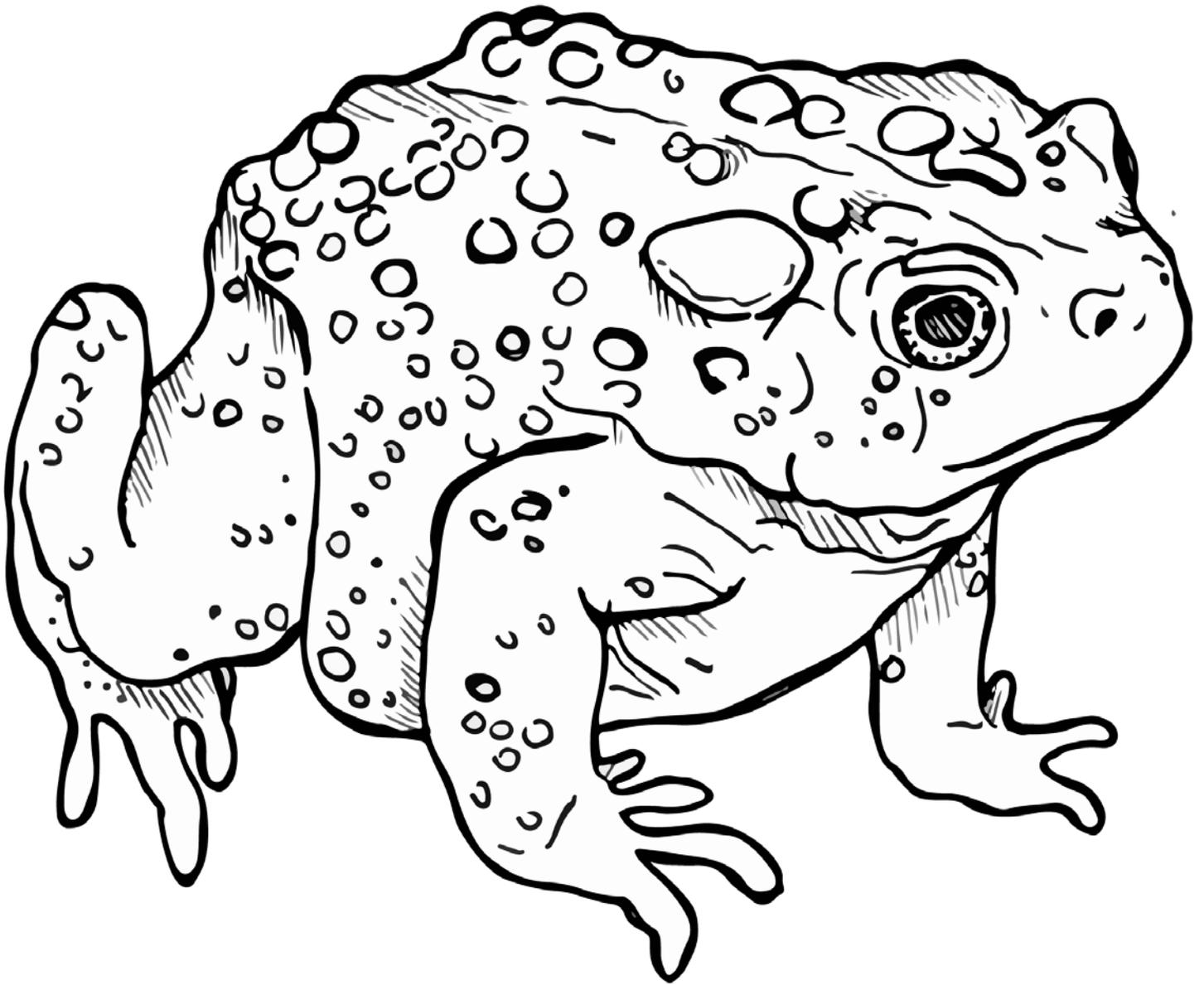
Make a frog house in your backyard by creating a safe shelter with fresh water. Paint a terra cotta pot and lay it in a shady spot in your yard. Watch for visitors to your frog house, and learn to identify frog calls to find out what kinds of frogs live near you.



*Bullfrogs are common in Ohio near bodies of water.*

# American Toad

*(Bufo americanus)*



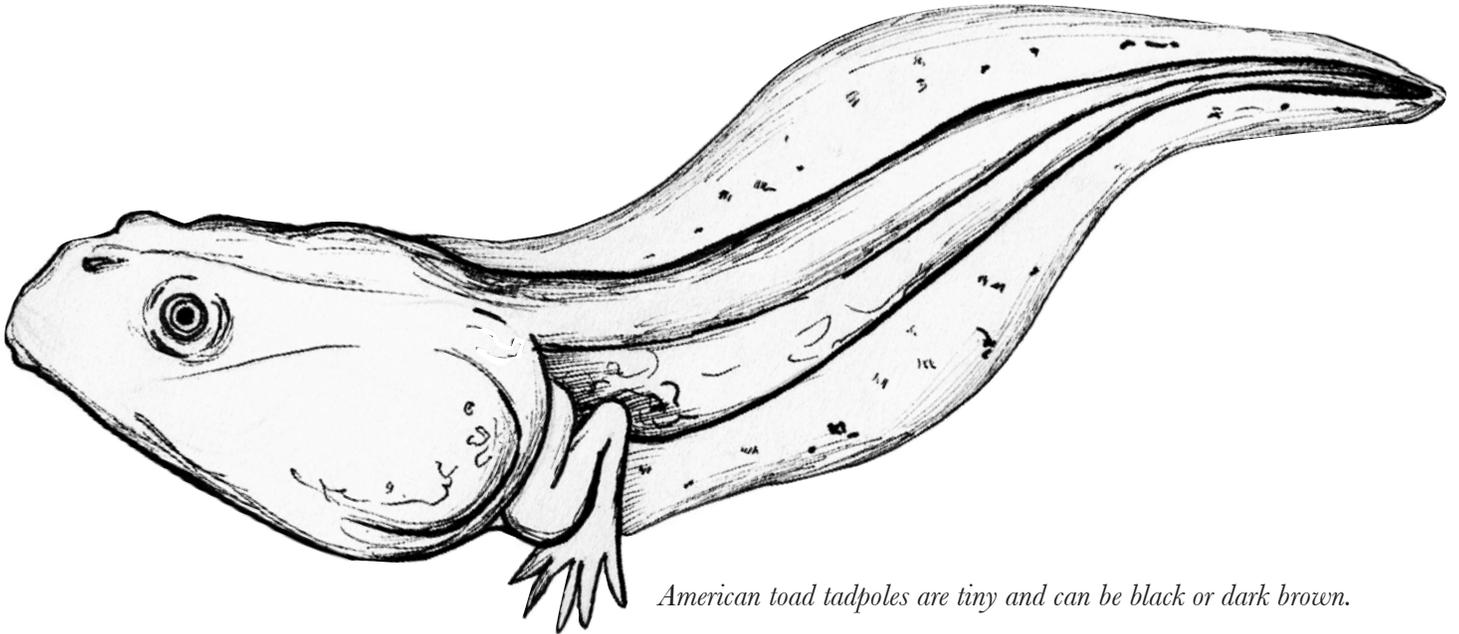
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**ABOUT:** American toads are one of the most common amphibians in Ohio. Their thick bumpy skin is usually brown with black spots. The males have darker colored throats, and their call is a loud musical trill that lasts up to 30 seconds.

**SIZE:** Length: 2 to 4.5 in. (females are larger).

**DIET:** Toads are considered great garden friends. They eat thousands of invertebrates a year, including: grasshoppers, flies, spiders, and slugs. Tadpoles eat aquatic plants and carrion.

**HABITAT:** Terrestrial and very adaptable, they live in forests, fields, wetlands, and backyards.



*American toad tadpoles are tiny and can be black or dark brown.*

**LIFE CYCLE:** In early spring, big groups of toads gather near shallow ponds. The females lay long strings of up to 20,000 eggs wrapped around water plants. The tadpoles hatch about a week later, and transform after 40 to 70 days. In the fall, they use their back legs as shovels to dig deep down into the dirt below the frost line. They stay very still for the entire winter, breathing slowly with a slow heart rate. Their lifespan is 5 to 8 years.

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## NATURE KNOWLEDGE

- A toad is a kind of frog that usually lives on land. They have warty skin and short legs. Toads travel using short hops, and frogs take long leaps.
- American toads can change their skin color from light tan to dark brown depending on their environment.
- American toads have toxins in their skin that help to protect them from predators. If you touch your eye after handling an American toad, you could have a reaction. Toads do not cause warts.
- Fowler's toads look like American toads, but they are smaller with more warts, lighter colored skin, and a shorter, lower-pitched call.

### **COLOR REALISTICALLY:**

Use the following colors:  
**brown, black**

# Blue Spotted Salamander

*(Ambystoma laterale)*

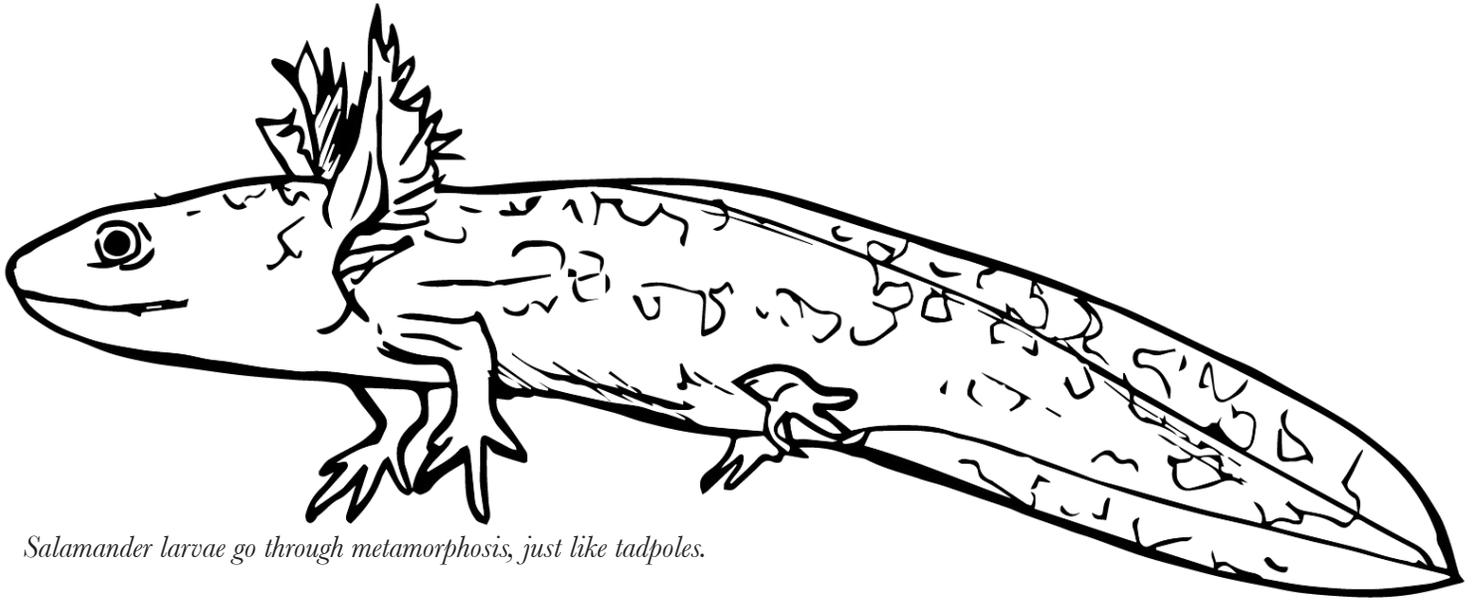


**ABOUT:** The blue-spotted salamander is part of a group of amphibians called mole salamanders that spend most of their lives underground. They have black skin that is speckled with light blue blotches. Their tail is almost as long as their body, and it can release a toxin for self defense. They have four toes on their front feet, and five toes on their back feet.

**SIZE:** Length: 4 to 6 in.

**DIET:** Carnivores, they eat worms, slugs, centipedes, spiders, and insects. The young salamanders eat small invertebrates in the water, including mosquito larvae.

**HABITAT:** They prefer moist woodlands with sandy soil and small ponds, and are found in both deciduous and coniferous forests. They stay under damp leaves and logs, or in underground burrows, and search for food at night.



*Salamander larvae go through metamorphosis, just like tadpoles.*

**LIFE CYCLE:** During the warm evening rains of spring, blue-spotted salamanders travel to woodland breeding ponds. The female lays up to 500 eggs, placing them at the base of rocks, plants, or sticks under the water. About a month later, the eggs hatch into a tadpole like looking creature called a salamander larva. They have leafy gills that stick out from the sides of their heads and are called external gills. After a few weeks, they grow legs. By late summer, they transform into adults and leave the pond. Their lifespan is unknown.

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## NATURE KNOWLEDGE

- Most salamanders can be divided into either the lungless family (Plethodontidae), or the mole family (Ambystomatidae). Lungless salamanders do not have lungs, instead they breathe through their skin. Mole salamanders have lungs and live underground, such as tiger, spotted, marbled, and small-mouthed salamanders.
- Even though salamanders look like lizards, they are very different. Lizards are reptiles, and salamanders are amphibians.
- Blue-spotted salamanders look a lot like Jefferson salamanders, but have more blue flecks on their back.
- Blue spotted salamanders are endangered in Ohio. Handling them is against the law.

**COLOR REALISTICALLY:**  
Use the following colors:  
**black, blue**

# Gray Tree Frog

*(Hyla versicolor)*



**ABOUT:** Gray tree frogs change the color of their skin depending on their environment. They can be brown, gray, or bright green with dark blotches. They have moist bumpy skin, a dark stripe behind their eyes, and bright yellow patches under their back legs. Large sticky circles on the tips of their toes help them to climb up trees and walls. The male gray tree frog has a dark chin, and his call is a short musical chirp that repeats every few seconds.

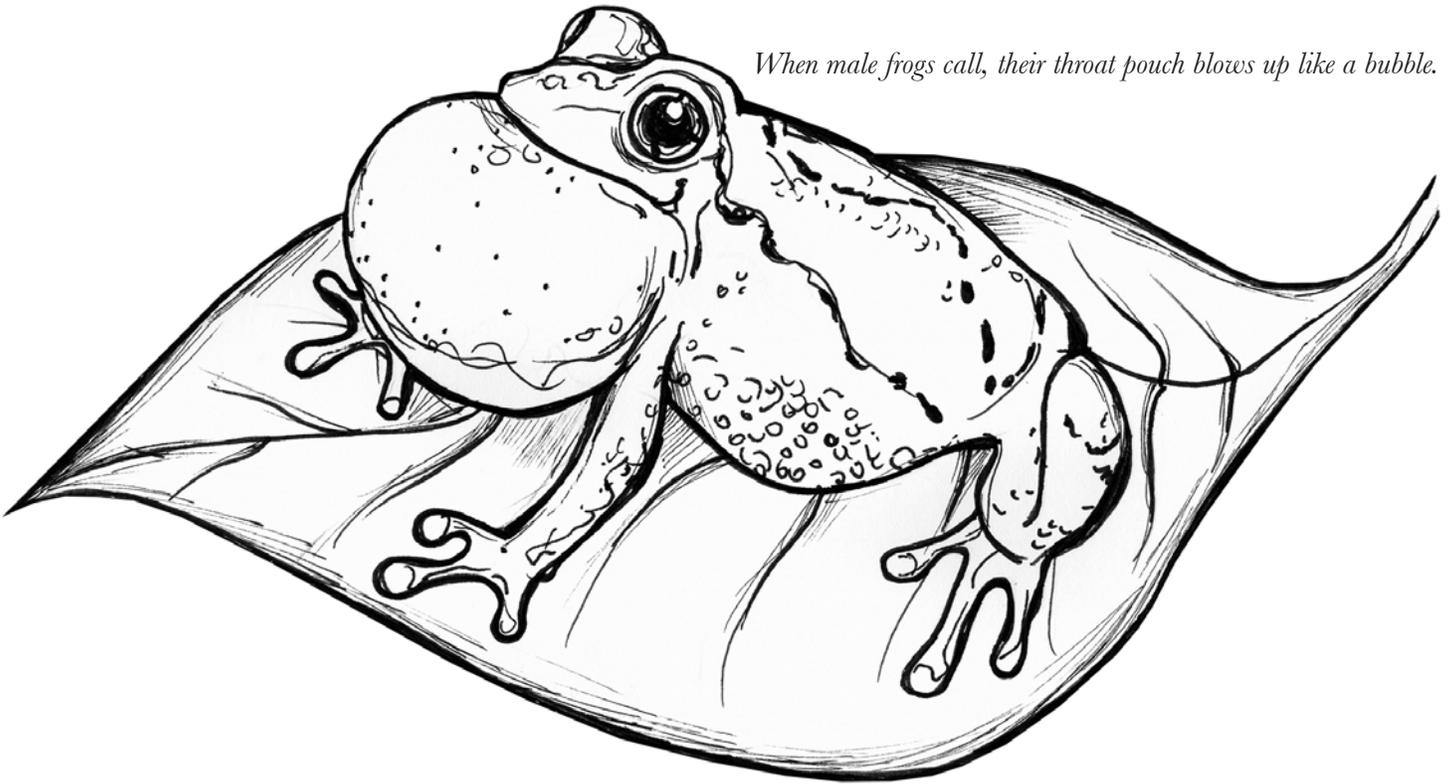
**SIZE:** 1.25 to 2.5 in.  
(females are larger).

**DIET:** Adults eat thousands of insects and spiders a year. Tadpoles are plant eaters.

**HABITAT:** Gray tree frogs are arboreal and nocturnal. They live high in the treetops of forests, swamps, and backyards. They can be found on windows and walls near outdoor lights.



*When male frogs call, their throat pouch blows up like a bubble.*



**LIFE CYCLE:** Each year in May, male gray tree frogs call from leaves that overhang water. Females lay small clusters of 30 to 40 eggs that hatch in 3-6 days. The greenish colored tadpoles go through metamorphosis by late summer. In wintertime, they hibernate under logs, rocks, roots, and leaf litter. Their bodies partially freeze and a sugar called glycerol acts as an “antifreeze” to keep internal ice crystals from forming. Their lifespan is 7 to 9 years.

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## NATURE KNOWLEDGE

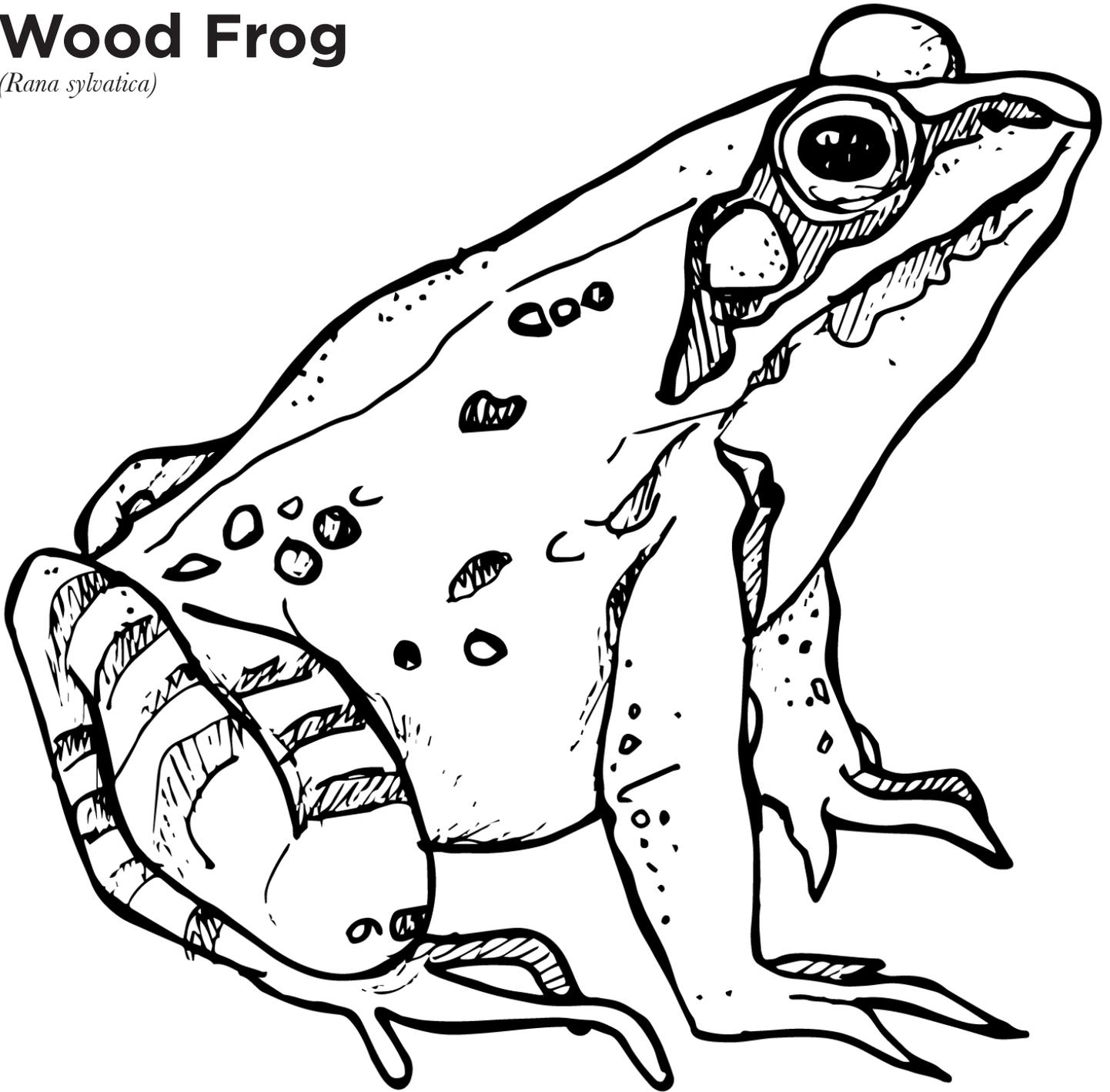
- The Cope’s gray tree frog looks almost exactly like the gray tree frog, but it has smoother skin and a faster trilling call.
- Frog fossil evidence dates back over 200 million years, from even before the dinosaurs.
- Frogs use their long tongues to catch their prey. Their large eyeballs help them to swallow by sinking into their mouth and mashing up their food.

### **COLOR REALISTICALLY:**

Use the following colors:  
**gray, green**

# Wood Frog

(*Rana sylvatica*)



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**ABOUT:** Wood frogs can live farther north than any other North American amphibian. They are usually brown, with a dark “mask” across their eye, and a white stripe along their lip. When males gather at breeding ponds, their calls sound like quacking ducks.

**SIZE:** Length: 1 to 3.25 in. (females are larger).

**DIET:** Adults eat invertebrates such as flies, mosquitoes, slugs, beetles, and crickets. Tadpoles mostly eat aquatic plants.

**HABITAT:** They are terrestrial, and are found in forested areas near water.



*Leaf litter is important habitat for many creatures.*

**LIFE CYCLE:** In early spring, female wood frogs lay clusters of up to 3,000 eggs in ponds. Large brown tadpoles hatch a few weeks later, and transform within a few months. In winter, wood frogs are frozen alive in the moist leaf-litter. Their blood stops flowing, and their breathing and heart rate stops. Their body produces high amounts of internal glucose, which keeps their cells from freezing. Their lifespan is 3 to 5 years.

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## NATURE KNOWLEDGE

- The amount of time that it takes frog eggs to hatch, and tadpoles to transform, depends on the surrounding temperature. In warm water, tadpoles might hatch in four days, and in colder water, it could take up to four weeks. Complete metamorphosis occurs over six to fifteen weeks.
- In the spring, large groups of wood frogs travel together to their breeding ponds, and sometimes cross roads.
- It only takes wood frogs one day of warm spring weather to unfreeze. They become active a month earlier than other frogs, and will even breed in puddles of melting snow.

### **COLOR REALISTICALLY:**

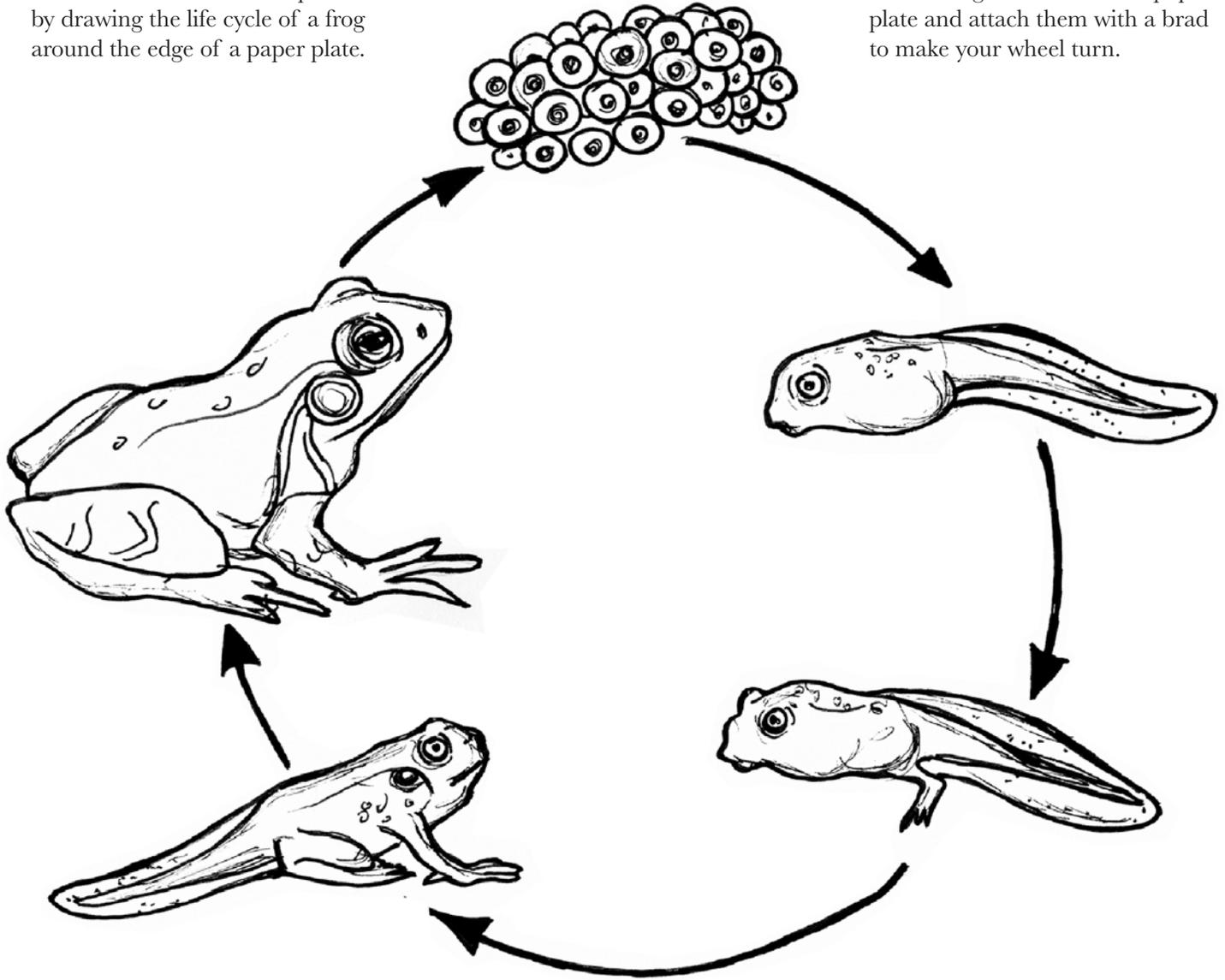
Use the following colors:  
**brown, black, white**

# Amphibian Activities

## MAKE ART: Wheel Of Metamorphosis

1. Make a wheel of metamorphosis by drawing the life cycle of a frog around the edge of a paper plate.

2. Cut a wedge out of another paper plate and attach them with a brad to make your wheel turn.



## EXPERIMENT WITH SCIENCE: Amphibian Slime

Many amphibians have a coat of slime that protects their skin from bacteria, pollution, and damage. Make your own amphibian slime with water, food coloring, and cornstarch.

1. Pour one cup of corn starch into a bowl and add a quarter cup of water.
2. Mix them together with your fingers until your slime feels thick like honey. Keep adding a little bit of corn starch and a little bit of water until it is the right consistency. If you poke your finger at the top of the bowl quickly, the surface will feel hard, but if you let your finger slowly sink, it will feel like a liquid.
3. When your mixture is right, add two drops of food coloring. Play around with it by squeezing it into a hard ball, and then letting it slime down your fingers!

## PLAY GAMES: Human Frog Chorus

Frogs call when they are scared, trying to attract a mate, or protecting their territory. Different species make different calls, and you can learn how to identify frogs by the sound they make, just like birds. Practice frog calls with a group of friends to make a human frog chorus.

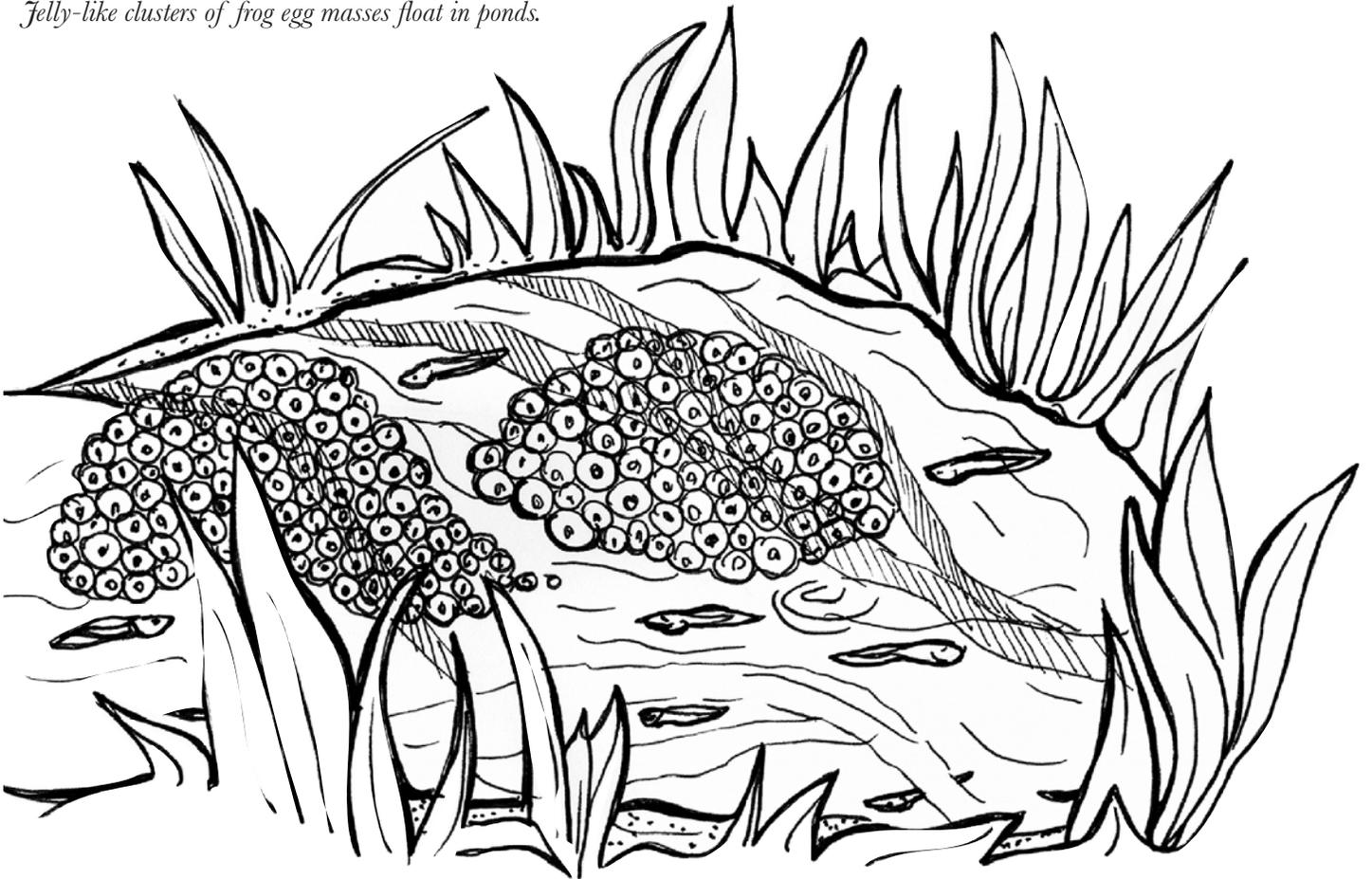
1. Many arboreal frogs sing by filling up air sacs at their throats. Practice making the sound of a tree frog by pinching your nose and using a nasally voice to say: “hey ba-by, hey ba-by, hey ba-by.”
2. Terrestrial frogs often have low, deep voices. Pretend to be a pickerel frog by pinching your nose and sounding like a sheep: “maaaaa maaaaaaaaaaaaa maaaaa.”
3. Aquatic frogs make loud sounds that carry long distances. To sound like an American bullfrog, use a deep voice to say: “rum, rum, jug-o-rum, rum; rum, rum, jug-o-rum, rum.”

## EXPLORE NATURE: Look & Learn

Amphibians are all around us! In the spring, look for tadpoles and frog eggs in ponds. When American toads complete their metamorphosis in early summer, there can suddenly be hundreds of tiny toads hopping around in yards and forests.

Find red-backed salamanders under logs near rivers and lakes, and tree frogs on the sides of your house at night. Look for mole salamanders on rainy summer nights, or during their annual migration to breeding ponds in very early spring.

*Jelly-like clusters of frog egg masses float in ponds.*



Have you ever wondered where frogs go in the winter or how to identify a bird? Do you enjoy taking walks in the woods and want to learn more about the wildlife in your backyard? Then kids and adults, this book is for you! Unique coloring pages feature Ohio wildlife with information that is formatted like a guide book. Find out about animal tracks and scat, life cycles, diet, and habitat. Increase your nature knowledge with fun facts, an extensive dictionary, art, science, games, and more. Calling all Ohio Nature Explorers, this is your go-to guide for discovering more about your favorite animals!



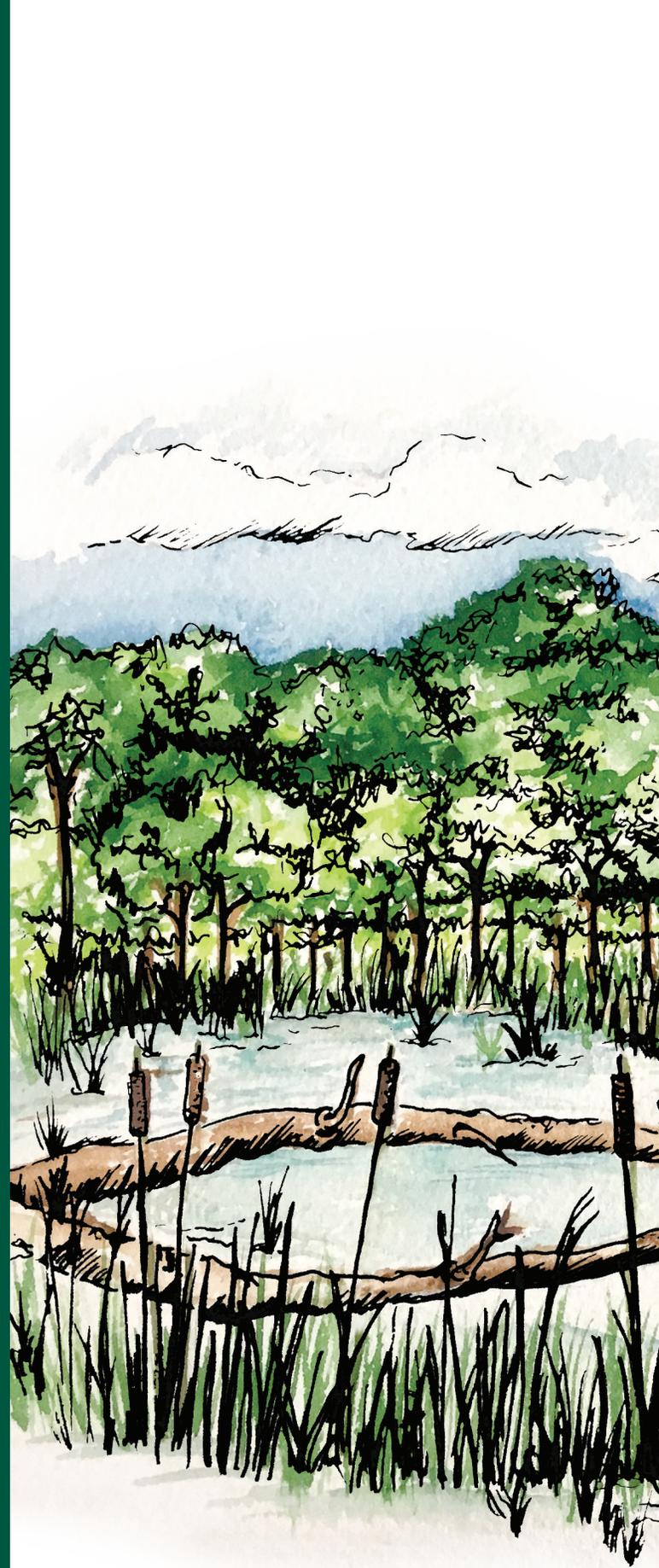
Amalia Celeste Fernand has a Master of Science in ecological leadership and education. Her bachelor's is in environmental studies with minors in marine science and anthropology. Amalia founded

Nature Explorers International (NEI) with the mission to: inspire excitement and curiosity for the environment through art, science, and outdoor experiences. She has worked with children and animals in over 20 countries on six continents, and currently teaches summer camps, forest kindergarten, and homeschool classes in Northern Michigan. Amalia shares her love of wildlife through this one of a kind book that introduces readers to the basic concept of a field guide in a fun and interactive way.

[www.amaliaexplores.com](http://www.amaliaexplores.com)



Anna Bazyl is Ukrainian and specializes in illustration. She has produced on numerous design platforms including websites, newspapers, magazines, and in books published worldwide.



\$14.99