



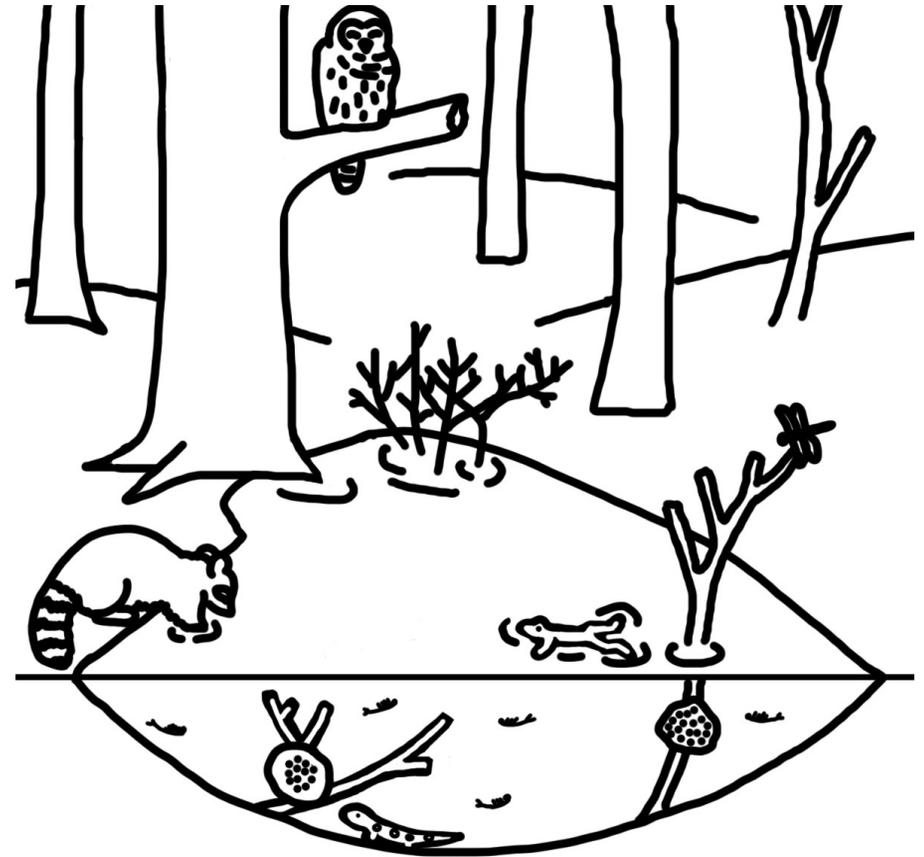
Senator George J. Mitchell Center  
for Sustainability Solutions

Maine Water Resources  
Research Institute



# My First Field Guide to Vernal Pools

Coloring Book



Maine Edition

By Kristine Hoffmann

This book belongs to \_\_\_\_\_



## RECOMMENDED WEB PAGES

Maine Vernal Pools  
[vernalpools.me](http://vernalpools.me)

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The Vernal Pool Association and Treefrog Educational  
[vernalpool.org](http://vernalpool.org)

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Amphibia Web  
[amphibiaweb.org](http://amphibiaweb.org)

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Northeast Partners in Amphibian and Reptile Conservation  
[northeastparc.org/our\\_products](http://northeastparc.org/our_products)

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Cornell Lab of Ornithology  
[birds.cornell.edu](http://birds.cornell.edu)

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Go Botany  
[gobotany.newenglandwild.org/](http://gobotany.newenglandwild.org/)

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**BLUE FLAG IRIS**



**Scientific name:** *Iris versicolor*

**Traits:** Curvy violet petals with yellow bases; leaves long and pointed

**Size:** 2 feet tall

**Habitat:** Moist or wet areas along edges of ponds, lakes, vernal pools, and bogs

PLANTS

FEATHERFOIL



**Scientific name:** *Hottonia inflata*

**Traits:** Thick green stems above water; white flowers; feather shaped leaves floating underwater

**Size:** Up to 2 feet tall

**Habitat:** Only in vernal pools

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**MEADOWSWEET**



**Scientific name:** *Spiraea alba*

**Traits:** Shrub with toothed green leaves, many small white flowers in cone shape clusters

**Size:** 3 feet tall

**Habitat:** Rivers, vernal pools, ponds, and other wet areas

WINTERBERRY



**Scientific name:** *Ilex verticillata*

**Traits:** Shrub; smooth grey bark; leaves toothed; red berries present in fall and winter

**Size:** Up to 10 feet tall

**Habitat:** Forested wetlands, vernal pools, and along shorelines of lakes and ponds

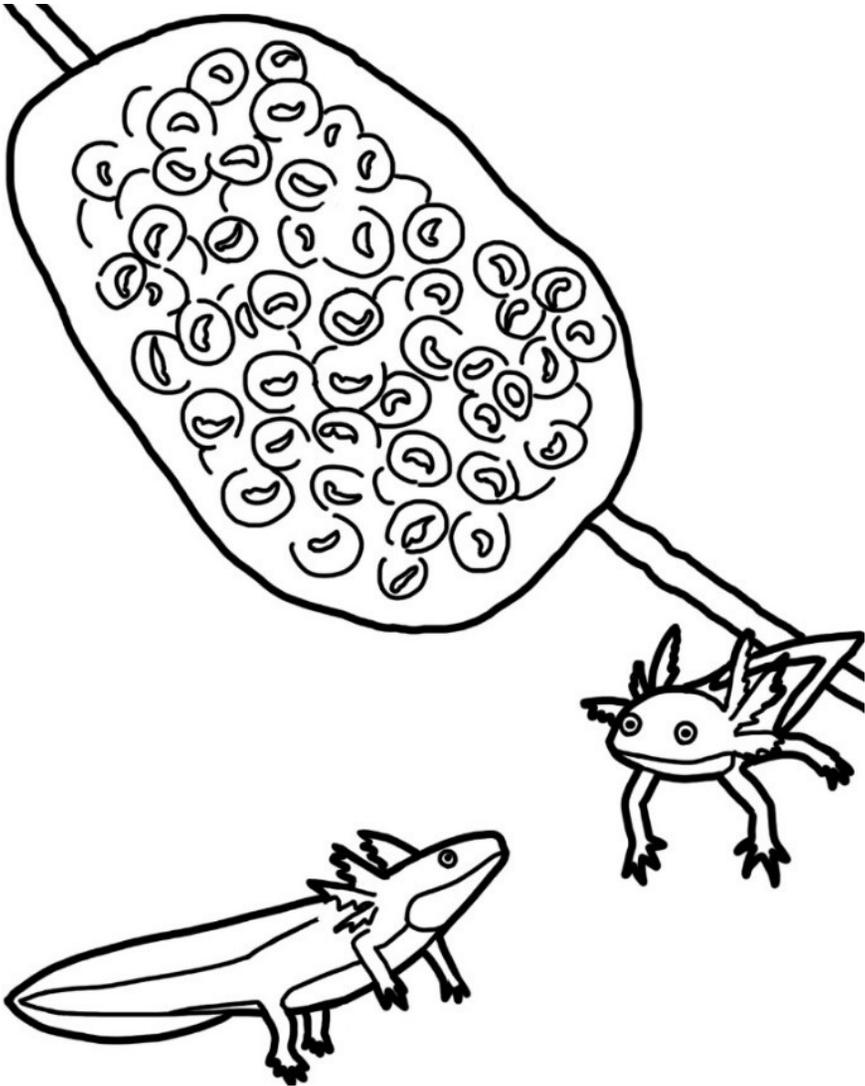
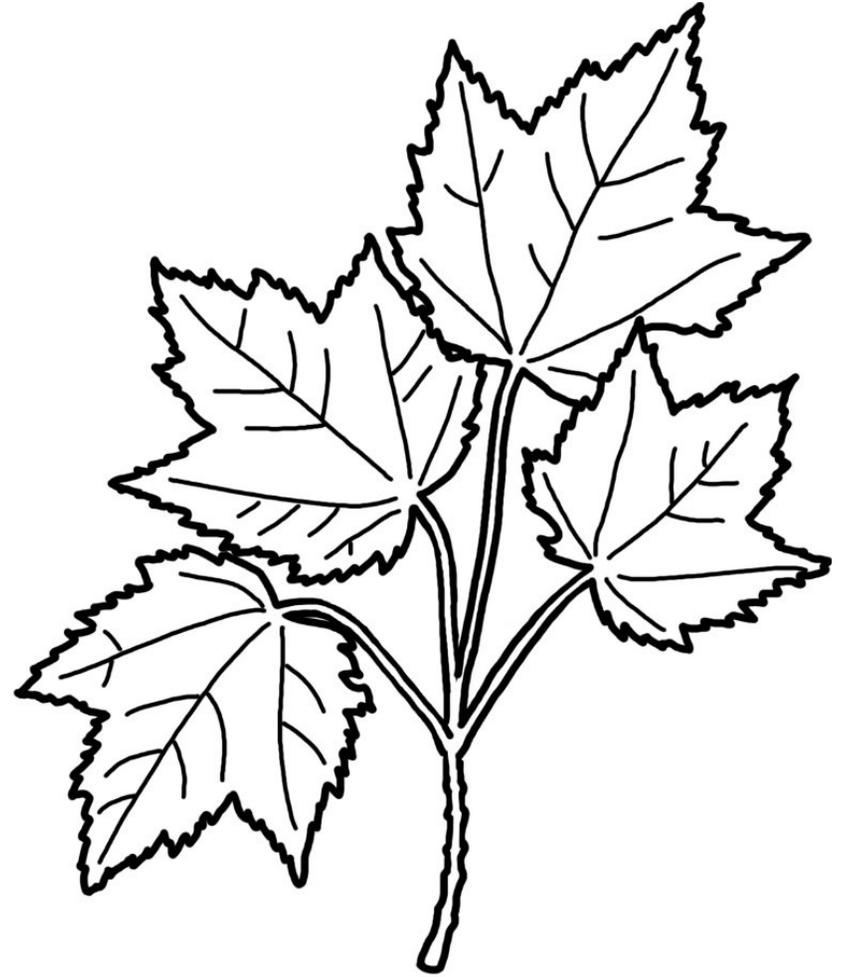
What Is a Vernal Pool?

Vernal pools are shallow wetlands with still water that dry up each year or every few years. Fish cannot persist in these temporary wetlands, but some amphibians and fairy shrimp can only reproduce or live in these small pools.



**SALAMANDER EGGS AND LARVAE**

Vernal pool amphibians lay eggs in clusters called egg masses. Spotted Salamander egg masses have an outer jelly-like layer. The developing salamanders look black inside the clear jelly. Larvae hatch from the eggs. Their gills look like feathery ears.

**RED MAPLE**

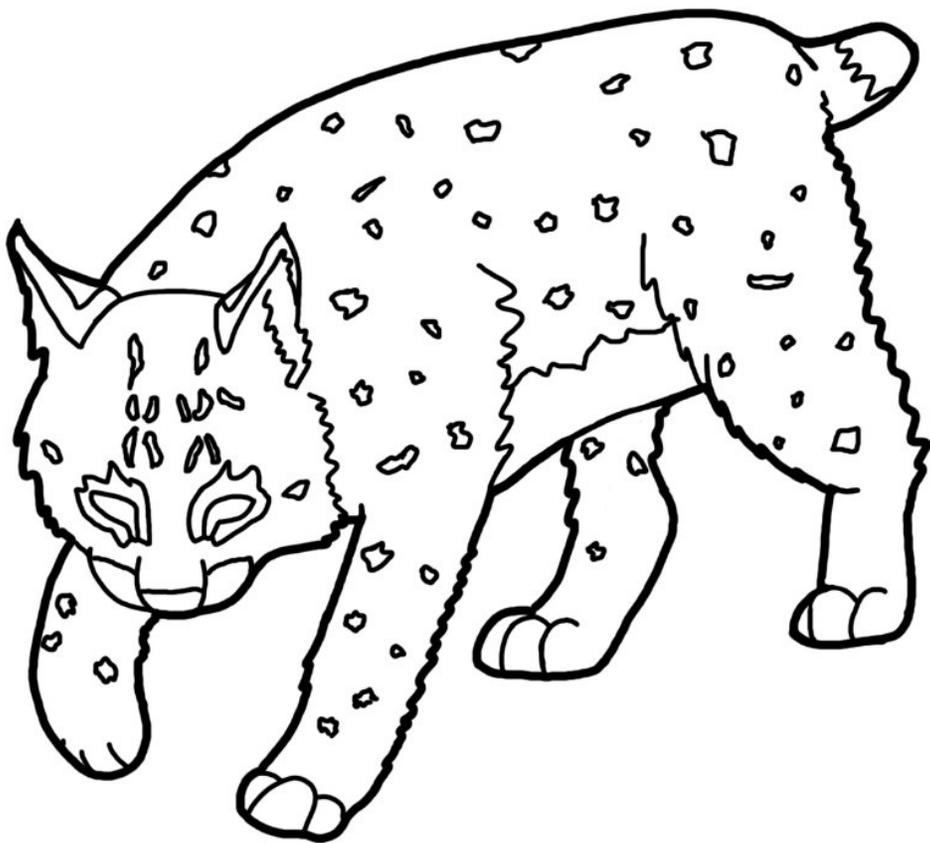
**Scientific name:** *Acer rubrum*

**Traits:** Tree; leaves are broad and have 3 to 5 lobes; leaf stems can be red and attached opposite of another stem

**Size:** Leaves 2 to 6 inches wide

**Habitat:** Most common in wet forests

## BOBCAT



**Scientific name:** *Lynx rufus*

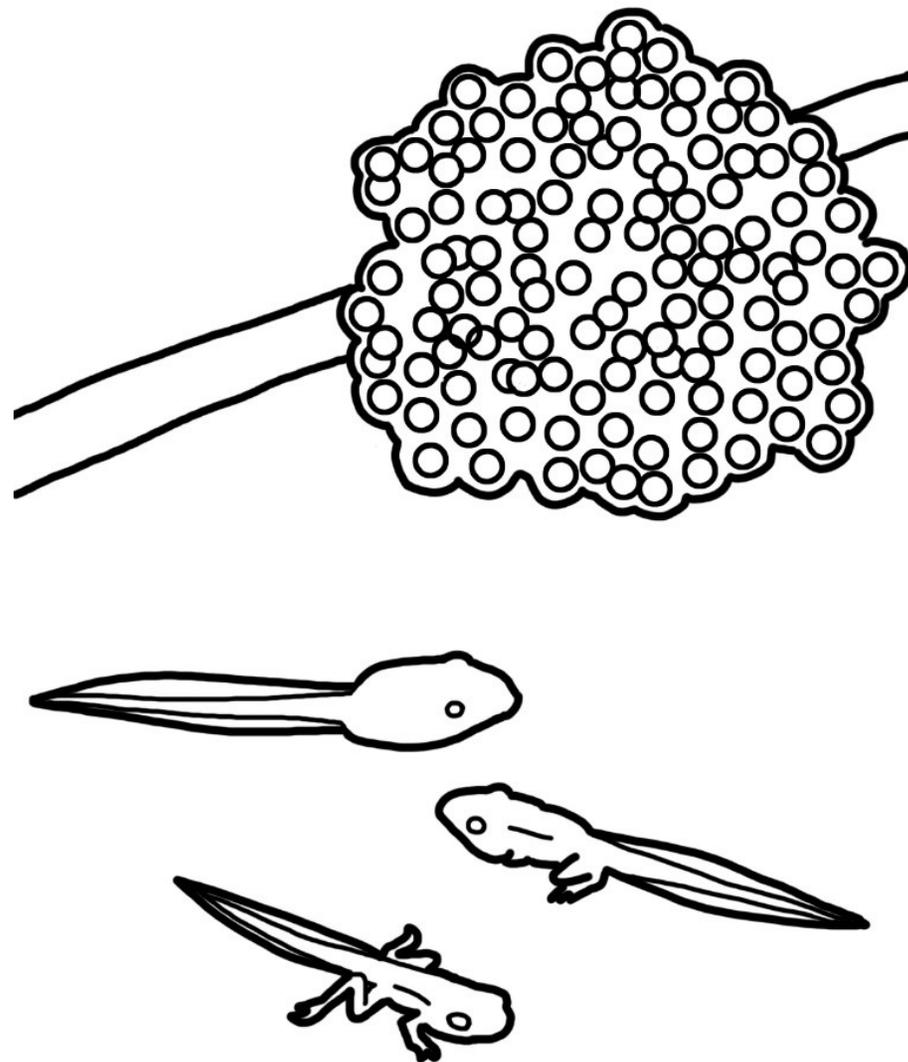
**Traits:** Brown to orange with black spots; short tail with a black top; white muzzle, blotches around eyes, and belly

**Size:** Up to 3 feet long, 2 feet tall

**Habitat:** Forests and swamps

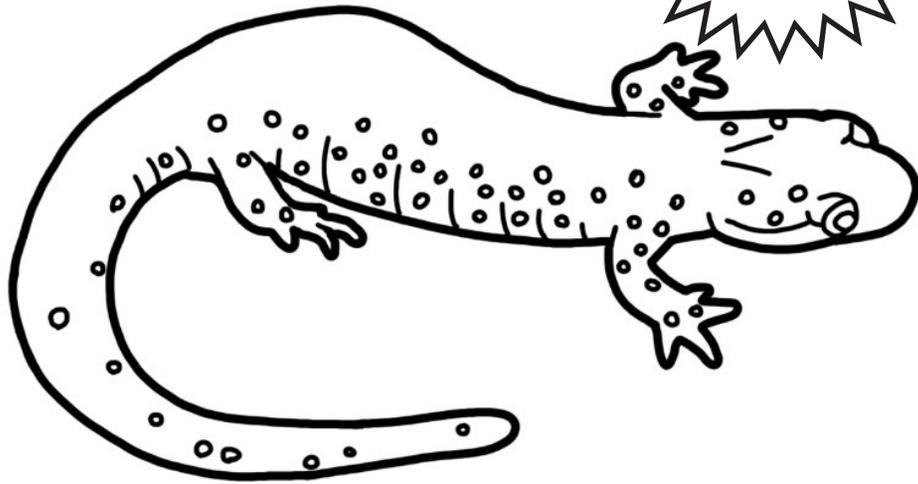
## WOOD FROG EGGS AND TADPOLES

Wood Frog egg masses are the size of softballs. The developing tadpoles are black in a clear jelly. Hundreds of tadpoles hatch from each mass. They grow legs and lose their tail as they metamorphose into young frogs.



**BLUE-SPOTTED SALAMANDER**

Maine Vernal Pool  
Indicator and  
Species of Special  
Concern



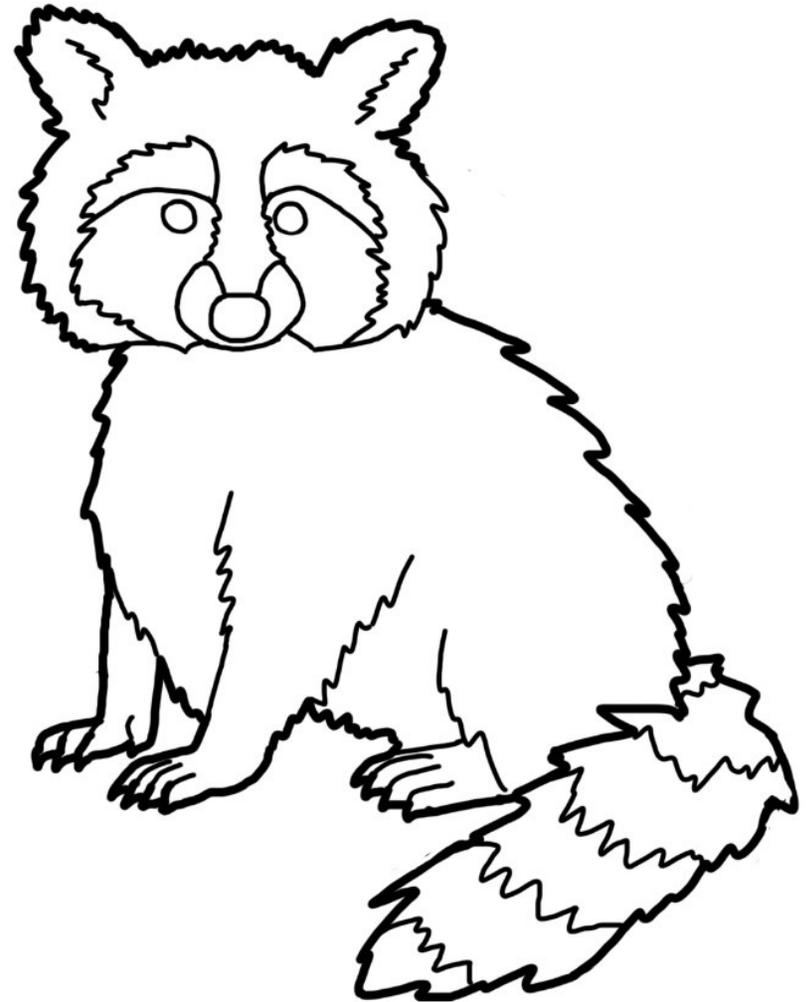
**Scientific name:** *Ambystoma laterale*

**Traits:** Black with light blue speckles

**Size:** 3 to 6 inches

**Habitat:** Underground or under the leaves in the forest; sometimes in people's basements; adults lay eggs in vernal pools in the spring and then leave

**RACCOON**



**Scientific name:** *Procyon lotor*

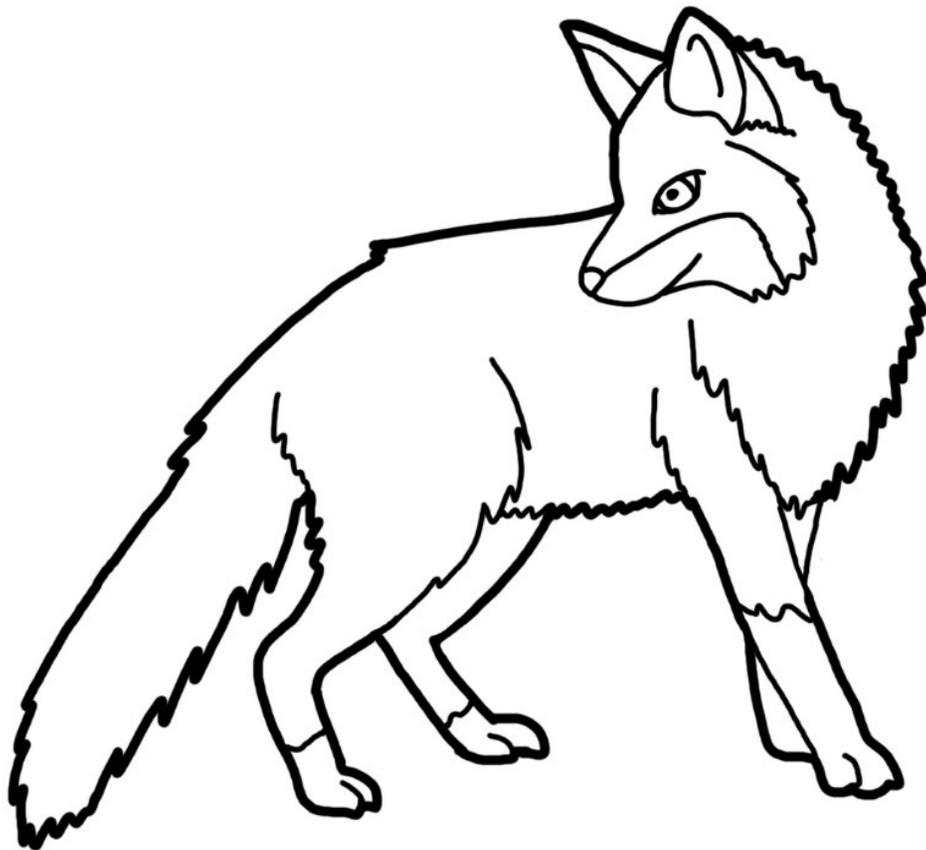
**Traits:** Brown with dark mask, white eyebrows and muzzle, black and brown striped tail

**Size:** 2 to 3 feet long, 1 foot tall

**Habitat:** Forests, fields, and neighborhoods

## MAMMALS

### RED FOX



**Scientific name:** *Vulpes vulpes*

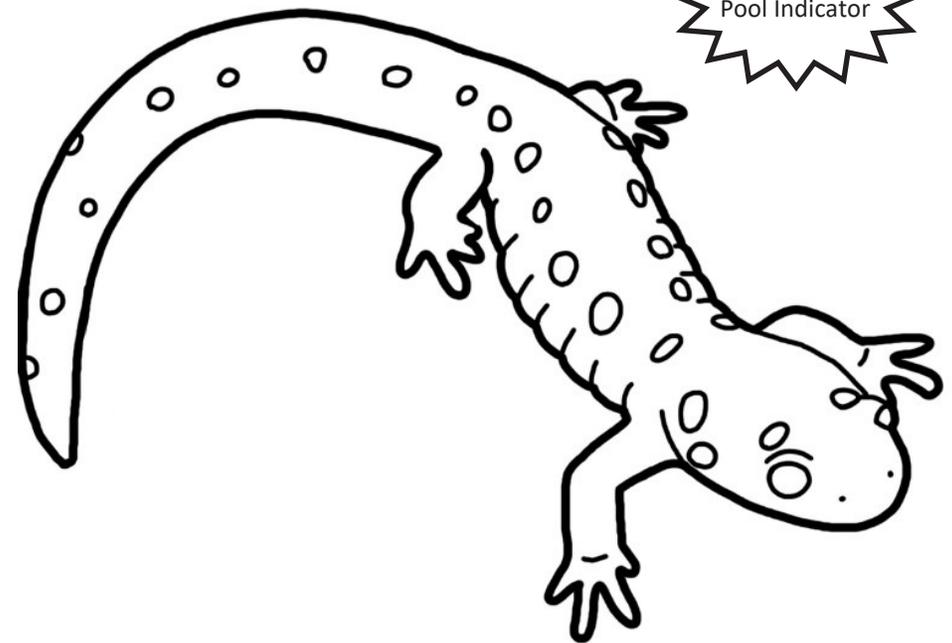
**Traits:** Red to gray body, white muzzle, black feet; ears are white on inside and black on back

**Size:** Up to 5 feet long, 1.5 feet tall

**Habitat:** Forest, fields, and neighborhoods

## AMPHIBIANS

### SPOTTED SALAMANDER



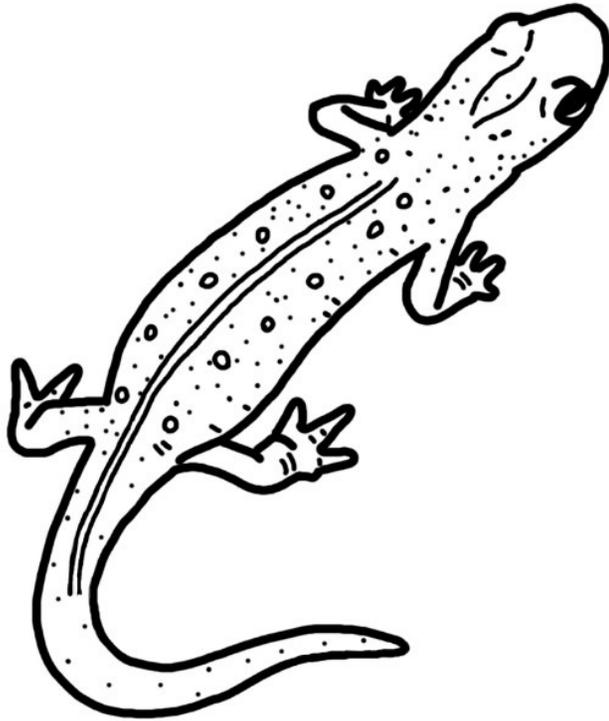
**Scientific name:** *Ambystoma maculatum*

**Traits:** Yellow spots on a black background; sometimes they have tiny blue dots

**Size:** 5 to 8 inches long

**Habitat:** Underground in the forest; sometimes in people's basements; adults lay eggs in vernal pools in the spring and then leave

EASTERN NEWT



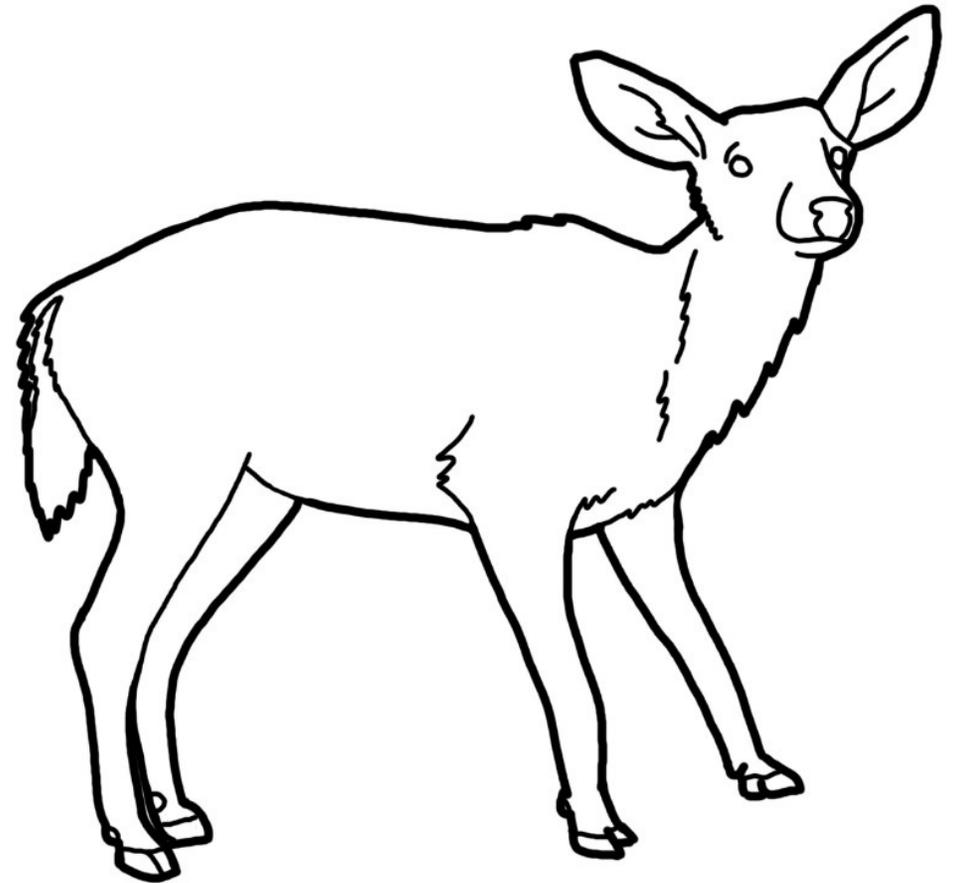
**Scientific name:** *Notophthalmus viridescens*

**Traits:** Green or brown with a lighter belly, and a line of red circles along each side; larvae metamorphose into juveniles called “efts” and are orange with red spots

**Size:** 3 to 4 inches

**Habitat:** Adults usually live in permanent ponds, but are also found in vernal pools; efts are often found on land in the forest

WHITE-TAILED DEER



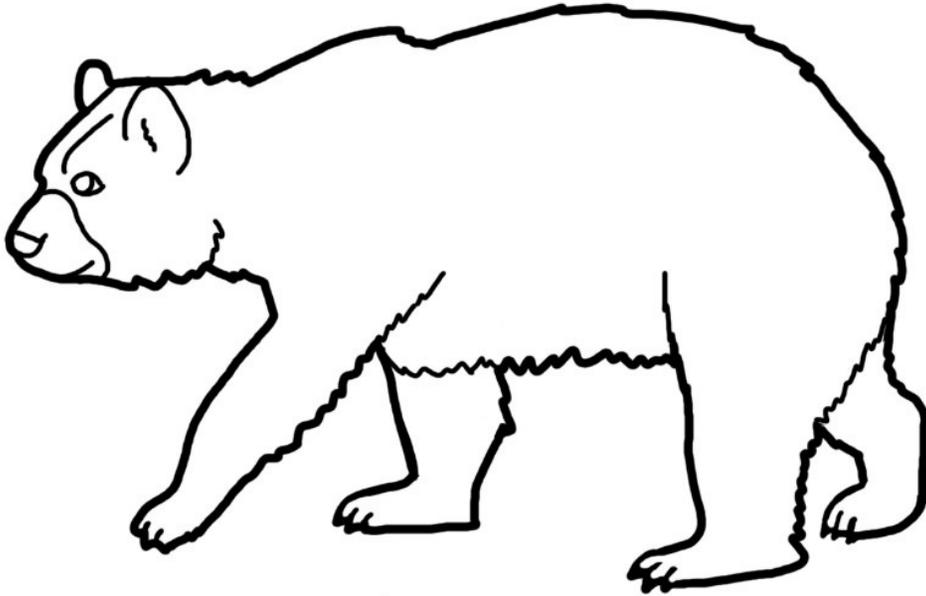
**Scientific name:** *Odocoileus virginianus*

**Traits:** Brown with a fluffy white tail and black nose

**Size:** Up to 7 feet long, 4 feet tall

**Habitat:** Forests, brushy areas, and nearby fields

AMERICAN BLACK BEAR



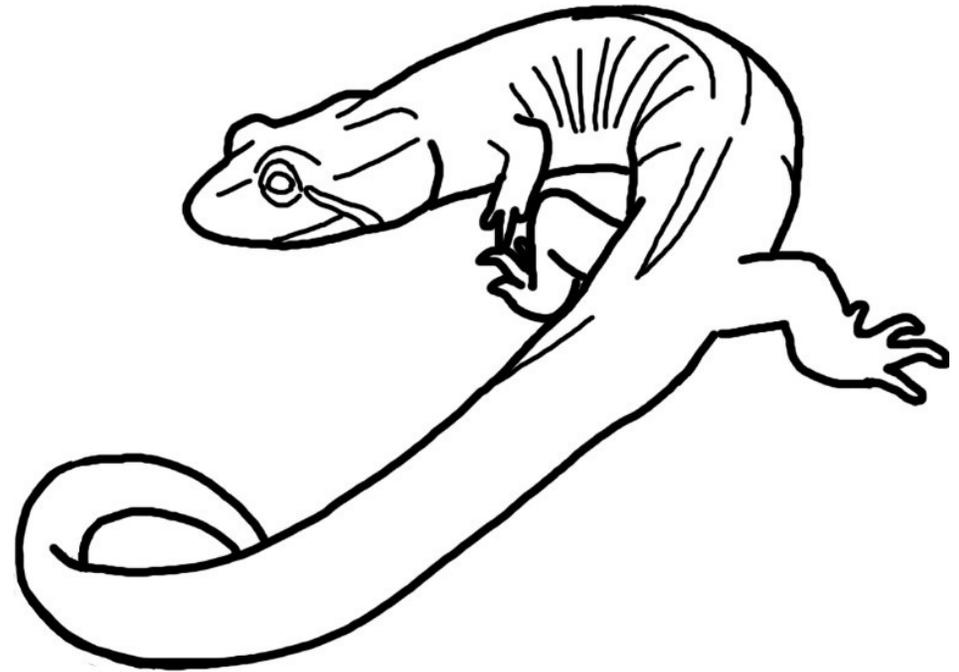
**Scientific name:** *Ursus americanus*

**Traits:** Black to brown with brown muzzle

**Size:** Up to 6 feet long, up to 3 feet tall

**Habitat:** Forests

NORTHERN DUSKY SALAMANDER



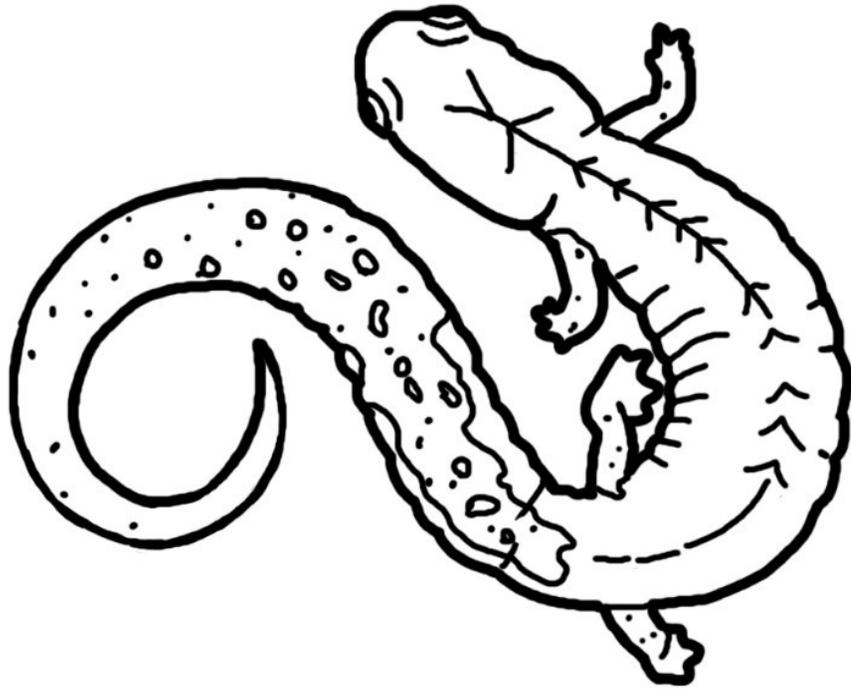
**Scientific name:** *Desmognathus fuscus*

**Traits:** Dark brown with a faint white line reaching from the eye to jaw; young may be mottled; hind legs are wider than arms

**Size:** 2 to 5 inches

**Habitat:** Under rocks and logs along stream edges, sometimes found near vernal pools

FOUR-TOED SALAMANDER



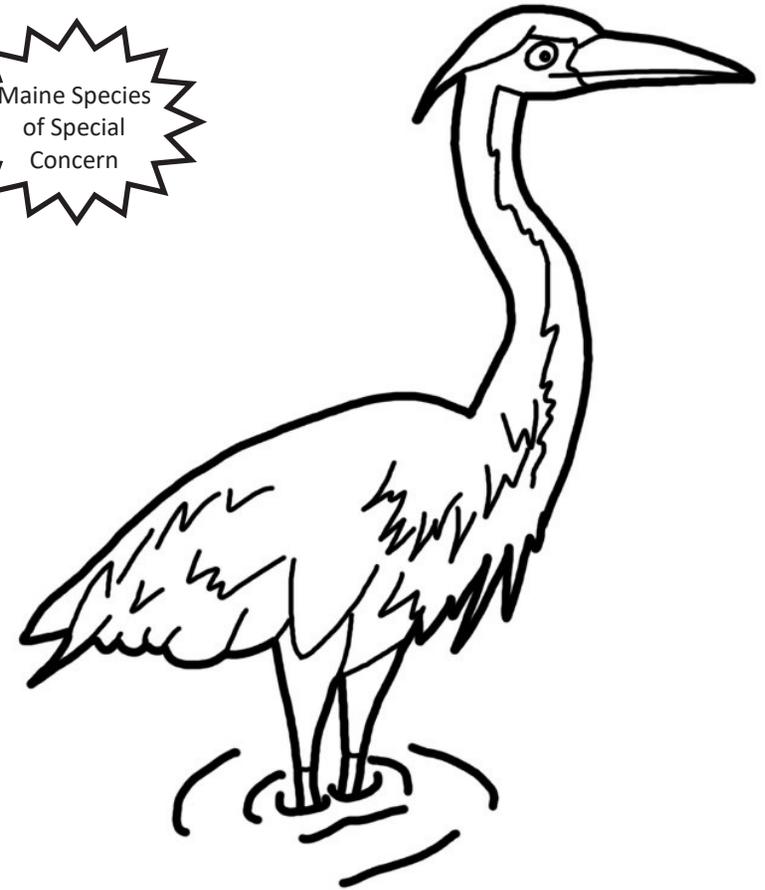
**Scientific name:** *Hemidactylium scutatum*

**Traits:** Brown back and legs, lighter tail, white belly with black “salt and pepper” spots

**Size:** 2 to 4 inches

**Habitat:** Under logs and rocks in the forest; adults lay eggs in moss above the water and the larvae drop into the pool when they hatch

GREAT BLUE HERON



**Scientific name:** *Ardea herodias*

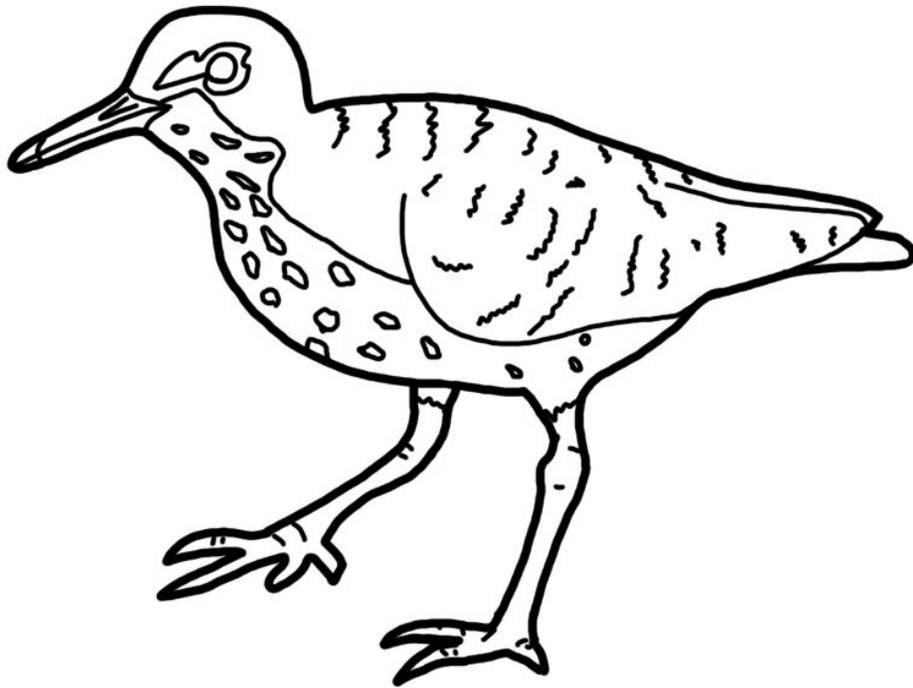
**Traits:** Black cap, yellow bill, grey to blue back, white throat, long necks and legs

**Size:** Wingspan up to 70 inches

**Habitat:** Ponds, swamps, vernal pools, rivers, coasts, and other wet places

**Song:** Loud squawks

SPOTTED SANDPIPER



**Scientific name:** *Actitis macularius*

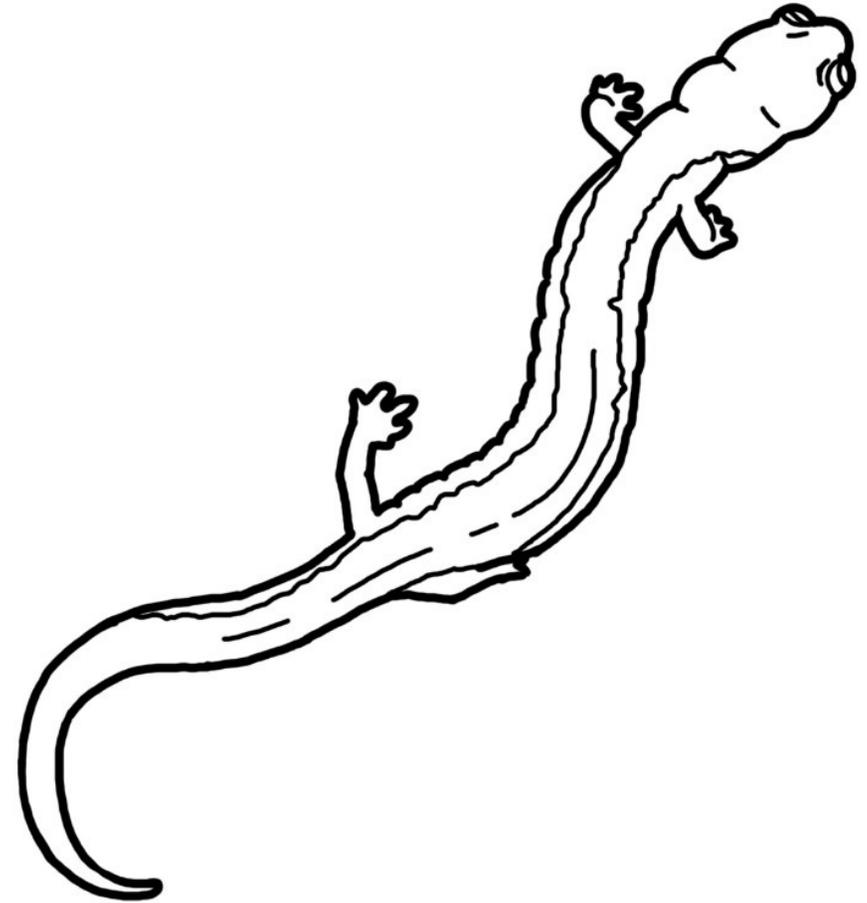
**Traits:** Brown back, white belly with brown spots, yellow bill and legs, and white circles around eyes

**Size:** Wingspan up to 15 inches

**Habitat:** Shorelines of rivers, ponds, vernal pools, and lakes

**Song:** Series of tweets

NORTHERN REDBACK SALAMANDER



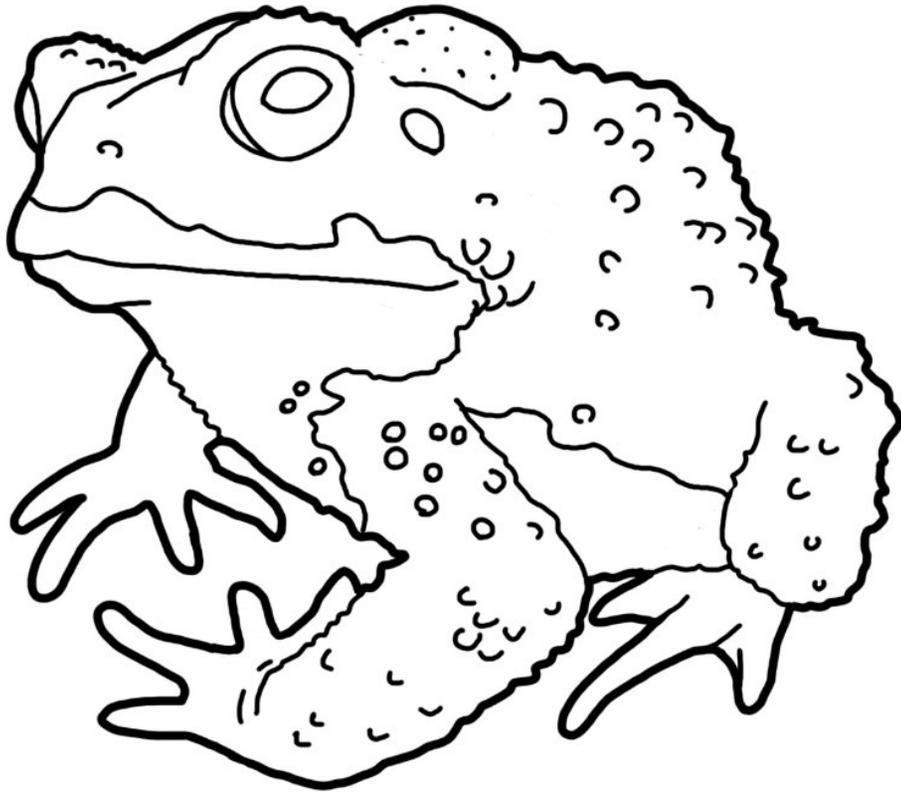
**Scientific name:** *Plethodon cinereus*

**Traits:** Most have dark gray sides with a red stripe on their back, but some lack the stripe and some have red sides

**Size:** 2 to 4 inches

**Habitat:** Under logs and rocks on dry land; often found near or in dry vernal pools but do not lay eggs in wetlands

AMERICAN TOAD



**Scientific name:** *Anaxyrus americanus*

**Traits:** Brown, dry, bumpy skin and relatively short legs

**Size:** 2 to 4 inches

**Habitat:** Forests, fields, lawns, and wetlands

**Song:** Long trill (up to 30 seconds)

WOOD DUCK



**Scientific name:** *Aix sponsa*

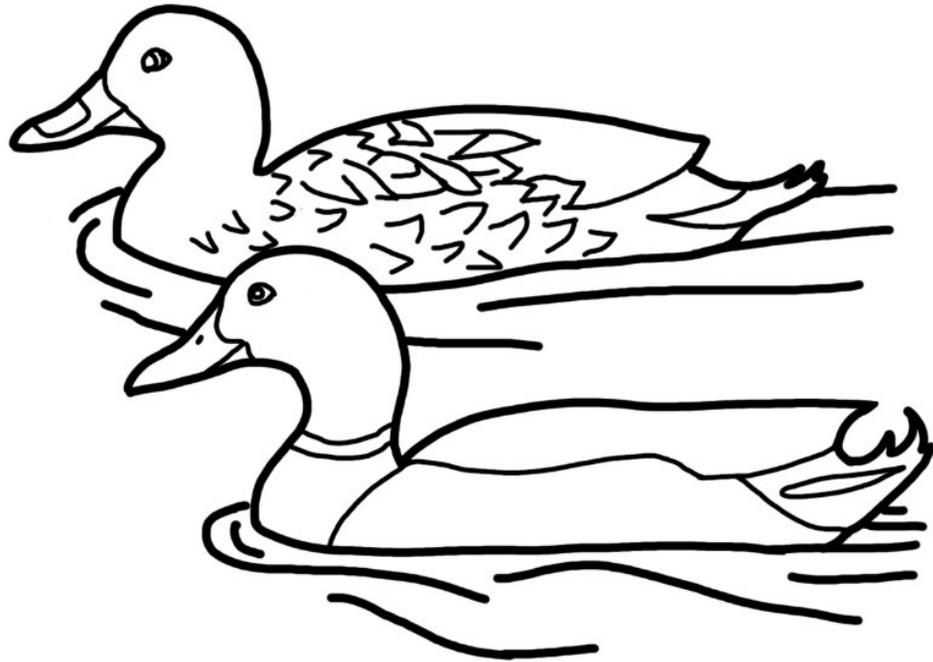
**Traits:** Males have green heads with white stripes, dark brown chest, light brown sides, and dark brown back; females are brown and have white eye patches and white stripes and blue patches on their wings

**Size:** Wingspan up to 30 inches

**Habitat:** Forested wetlands

**Song:** Whistling

## MALLARD



**Scientific name:** *Anas platyrhynchos*

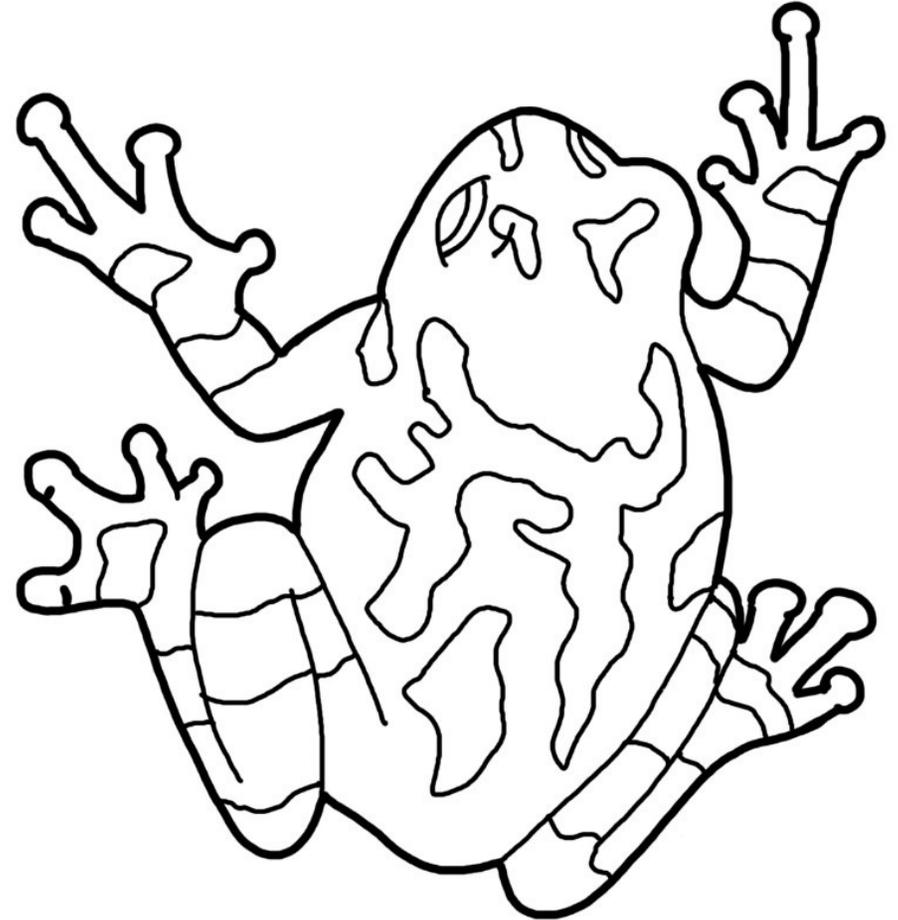
**Traits:** Females are brown with orange bills and a blue patch on wings; males have yellow bills, green heads, a white neckband, light brown sides, dark brown backs, and black tails

**Size:** Wingspan up to 40 inches

**Habitat:** Lakes, ponds, vernal pools, rivers, and streams

**Song:** Quacking

## GRAY TREEFROG



**Scientific name:** *Hyla versicolor*

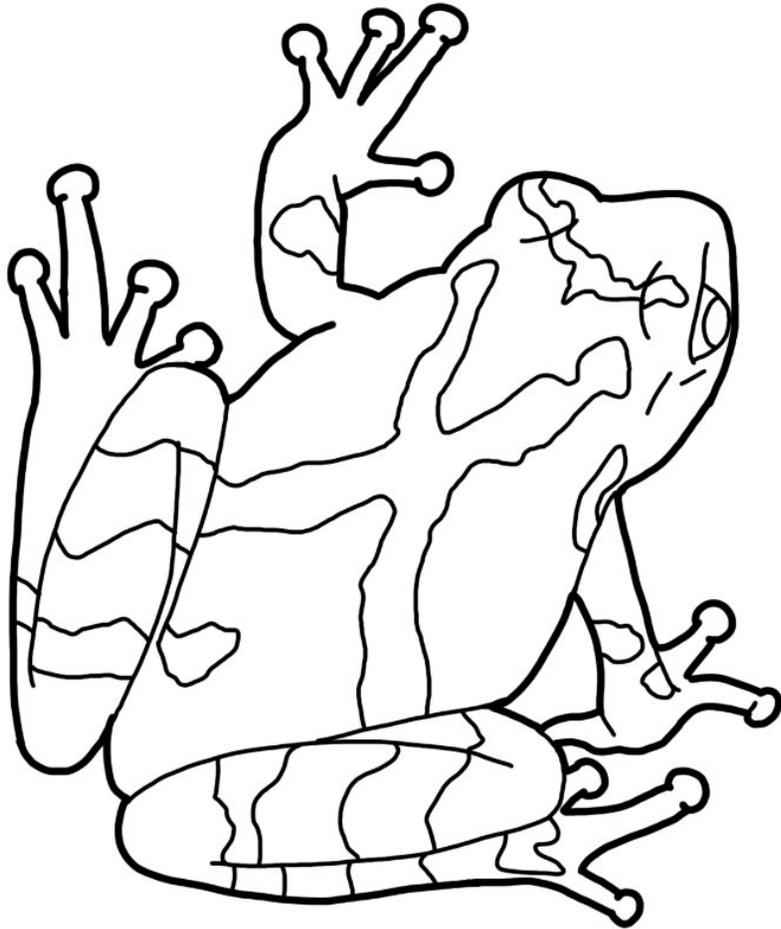
**Traits:** Gray, brown, or green with dark splotches; the end of each finger is a suction cup allowing the frog to climb

**Size:** 2 to 4 inches

**Habitat:** In trees; often found hiding in pipes and bird houses

**Song:** Short trill

## SPRING PEOPER



**Scientific name:** *Pseudacris crucifer*

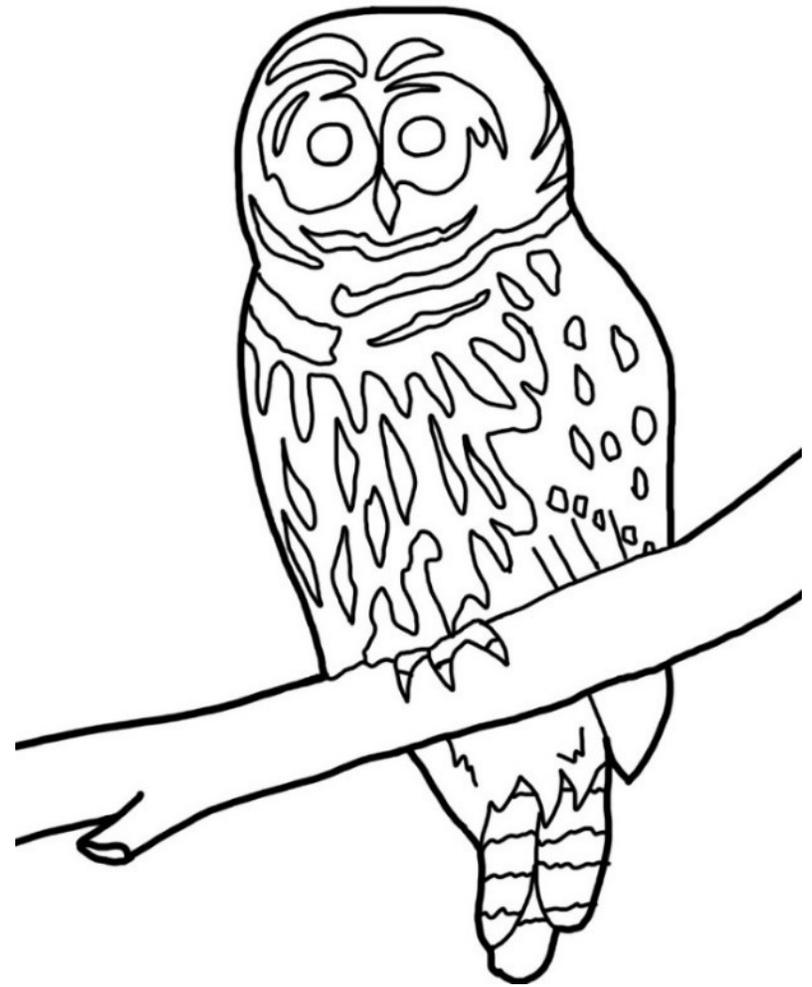
**Traits:** Tiny; dark blotches on their brown back form an “X” and suction cups on their fingers allow the frogs to climb

**Size:** 0.5 to 1.5 inches

**Habitat:** Forests near ponds, especially brushy areas; lay eggs in pools that stay wet most of the year

**Song:** Loud, high-pitched peep

## BARRED OWL



**Scientific name:** *Strix varia*

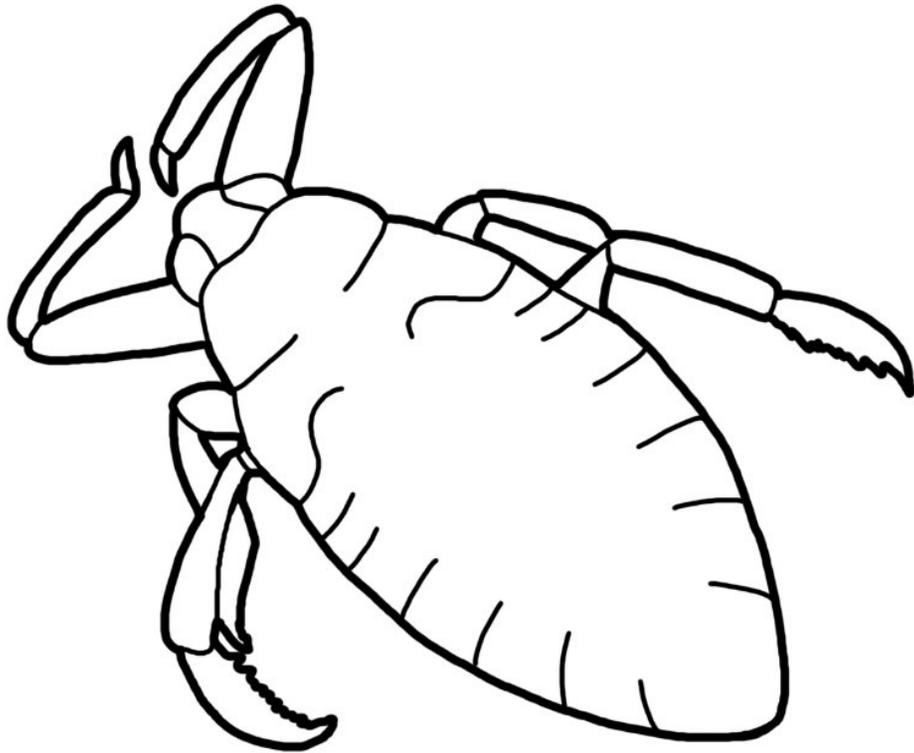
**Traits:** Dark brown bars on upper chest; dark brown stripes on white or tan belly; back brown

**Size:** Wingspan up to 50 inches

**Habitat:** Forests

**Song:** Hooting in a “who cooks for you?” rhythm

## GIANT WATER BUG



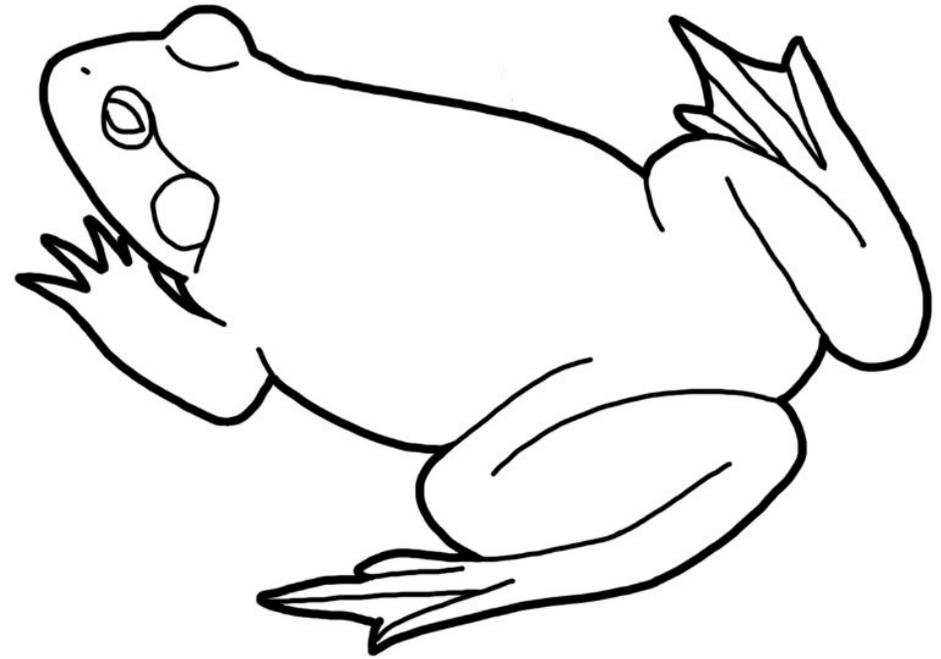
**Order:** Hemiptera (True bugs)

**Traits:** Brown or green; large and flat

**Size:** Up to 3 inches

**Habitat:** Streams, ponds, and vernal pools

## BULLFROG



**Scientific name:** *Lithobates catesbeianus*

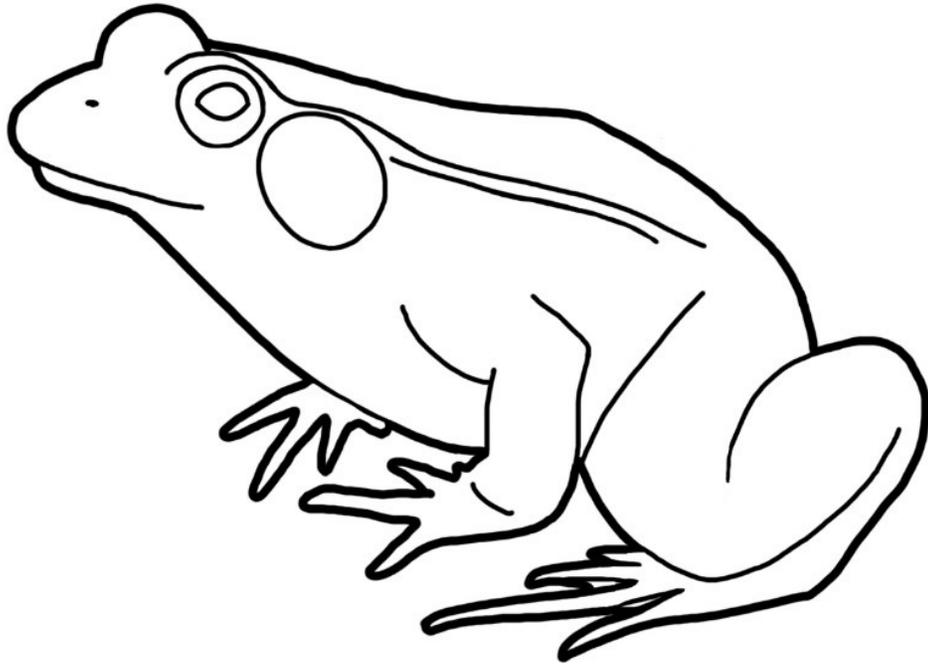
**Traits:** Green or brown with a light belly; a ridge reaches from the eyes to the ears, but not down the back; they can have small spots

**Size:** 4 to 8 inches

**Habitat:** Lakes, ponds, streams, and vernal pools; lay eggs in lakes and ponds

**Song:** Deep bellow sounding like “jug-o-rum”

GREEN FROG



**Scientific name:** *Lithobates clamitans*

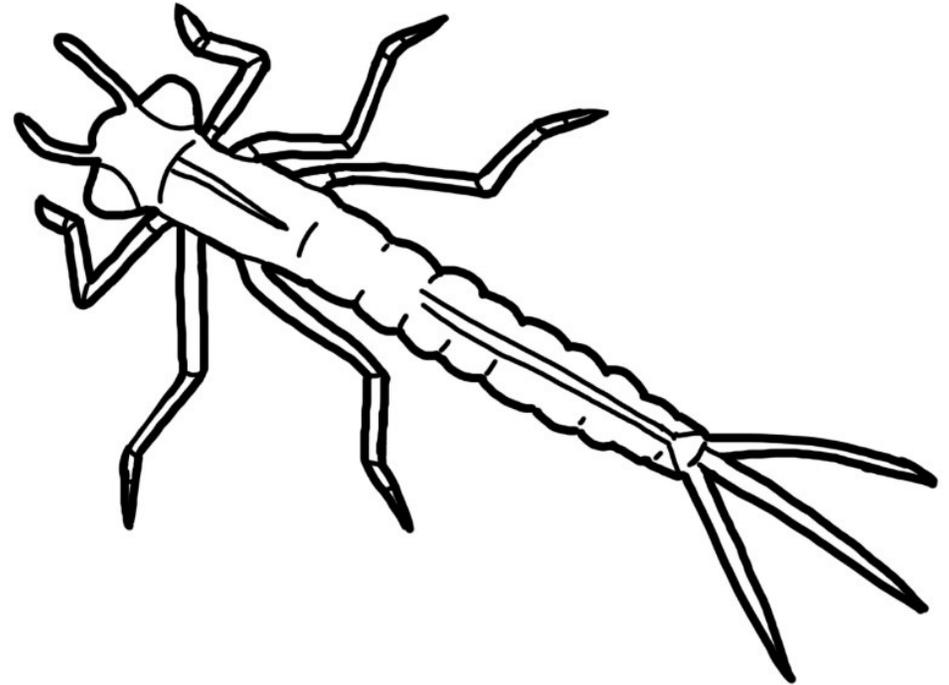
**Traits:** Green or brown with a light belly; ridge reaches from the eyes down the back to the waist; can have spots

**Size:** 2 to 4 inches

**Habitat:** Lakes, ponds, streams, and vernal pools

**Song:** Rubber band twanging or plucked banjo string

DAMSELFLY LARVA



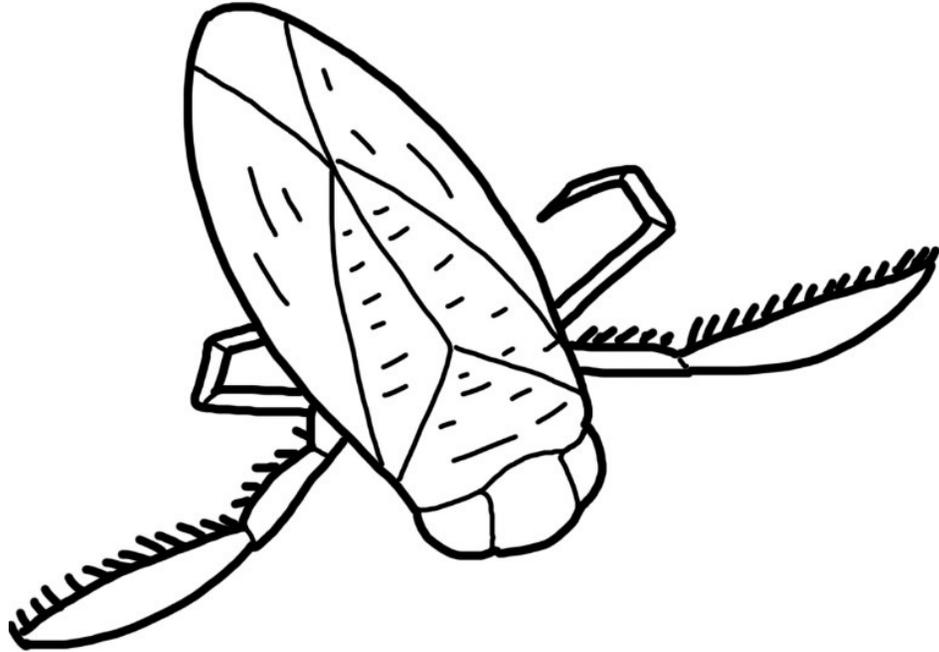
**Order:** Odonata (Dragonflies and relatives)

**Traits:** Brown; long and thin body; “tail” consists of three gills

**Size:** Up to 2 inches

**Habitat:** Ponds, vernal pools, bogs, lakes, streams, and rivers

**WATER BOATMAN**



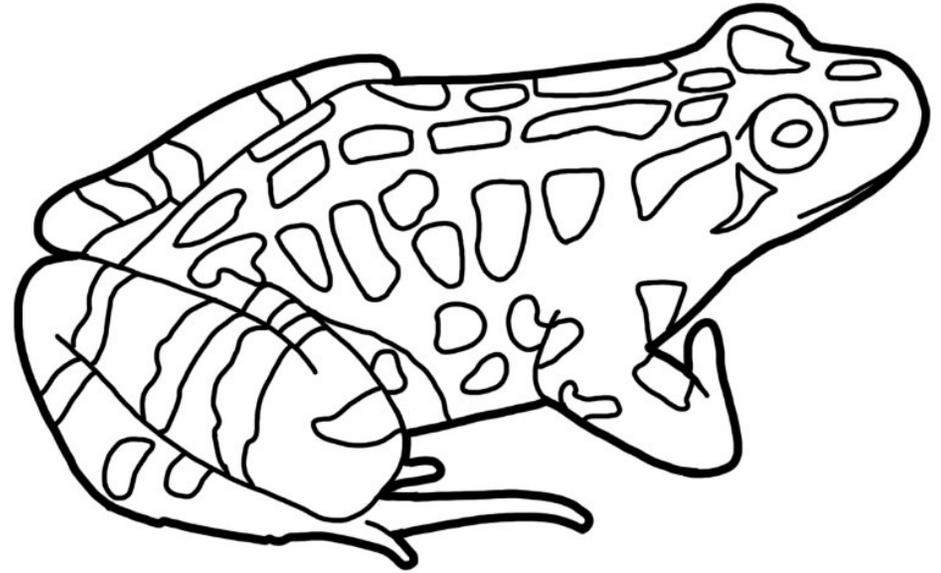
**Order:** Hemiptera (True bugs)

**Traits:** Brown to yellow with black stripes and long paddle-like legs

**Size:** Up to one half-inch

**Habitat:** Ponds, lakes, vernal pools, rivers, and streams

**PICKEREL FROG**



**Scientific name:** *Lithobates palustris*

**Traits:** Brown or green with dark brown rectangles; the bottom of their legs and lower belly is bright yellow to orange

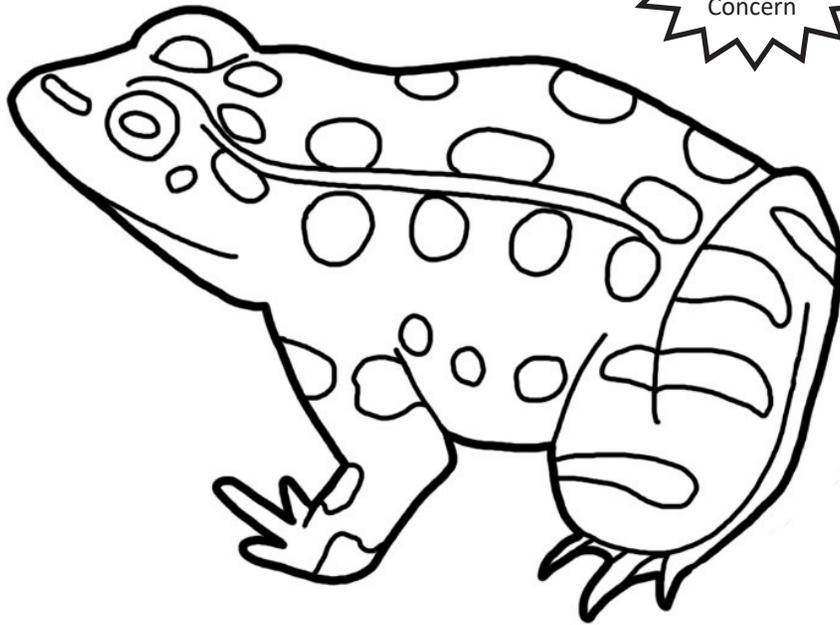
**Size:** 1 to 3 inches

**Habitat:** Lakes, ponds, streams, and fields

**Song:** Low-pitched snore or creaking door

NORTHERN LEOPARD FROG

Maine Species  
of Special  
Concern



**Scientific name:** *Lithobates pipiens*

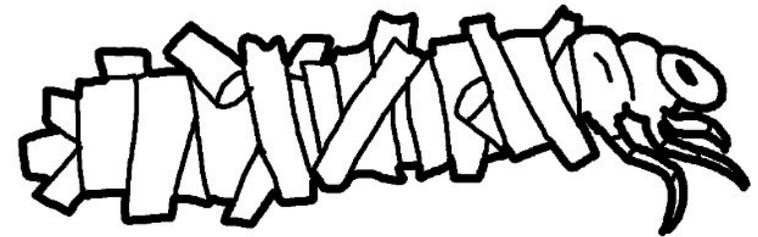
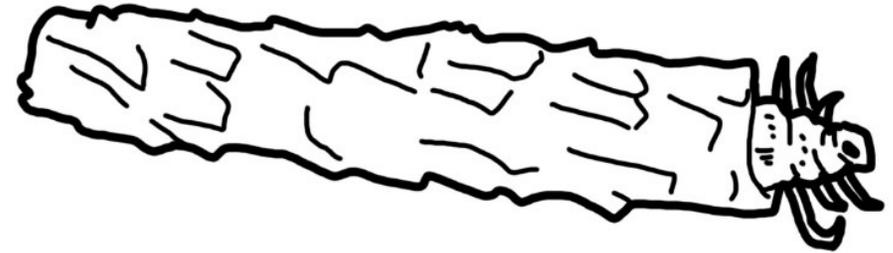
**Traits:** Green or brown with dark ovals; the bottom of their back legs is gray or white

**Size:** 2 to 4 inches

**Habitat:** Fields, forests, lakes, ponds, and streams

**Song:** Chuckle or snore

CADDISFLY LARVA



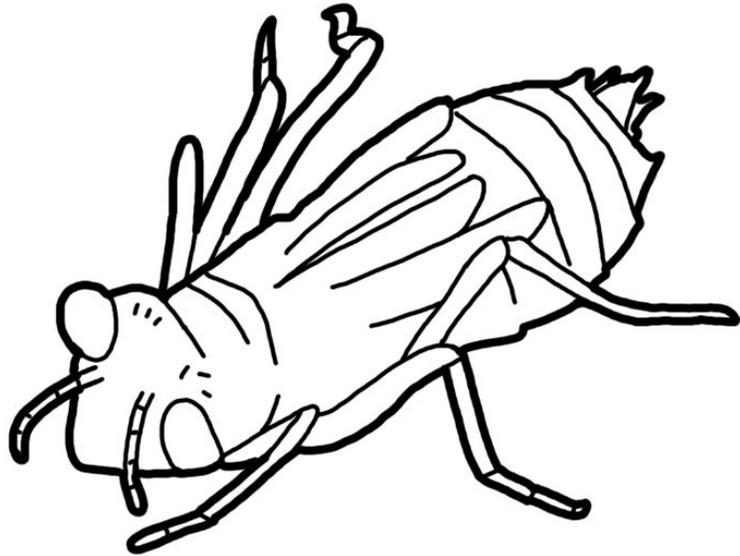
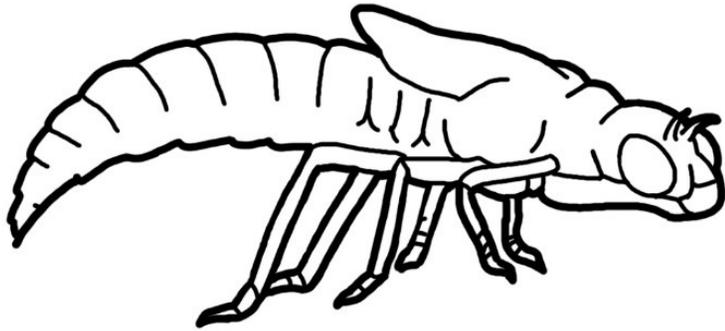
**Order:** Trichoptera (Caddisflies)

**Traits:** Brown caterpillar-like bodies surrounded by a case made of twigs, leaves, and stones

**Size:** 1 to 3 inches

**Habitat:** Ponds, lakes, vernal pools, rivers, and streams

DRAGONFLY LARVA



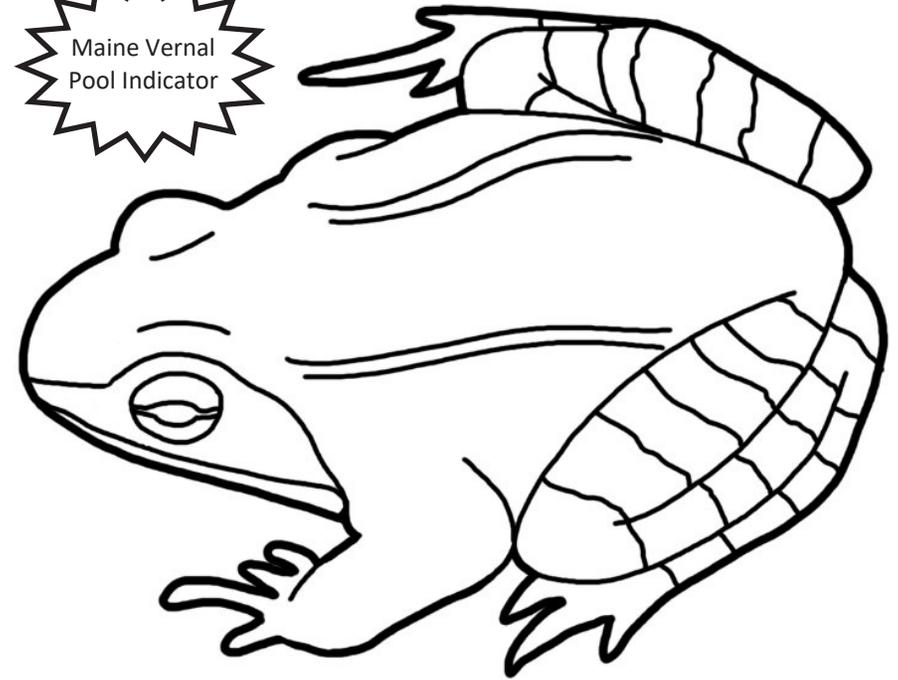
**Order:** Odonata (Dragonflies and relatives)

**Traits:** Brown and bulky; large heads and abdomen; short antennae; extendable lower jaw

**Size:** Up to 1 inch

**Habitat:** Still or slow-moving water in vernal pools, ponds, lakes, rivers, and streams

WOOD FROG



**Scientific name:** *Lithobates sylvaticus*

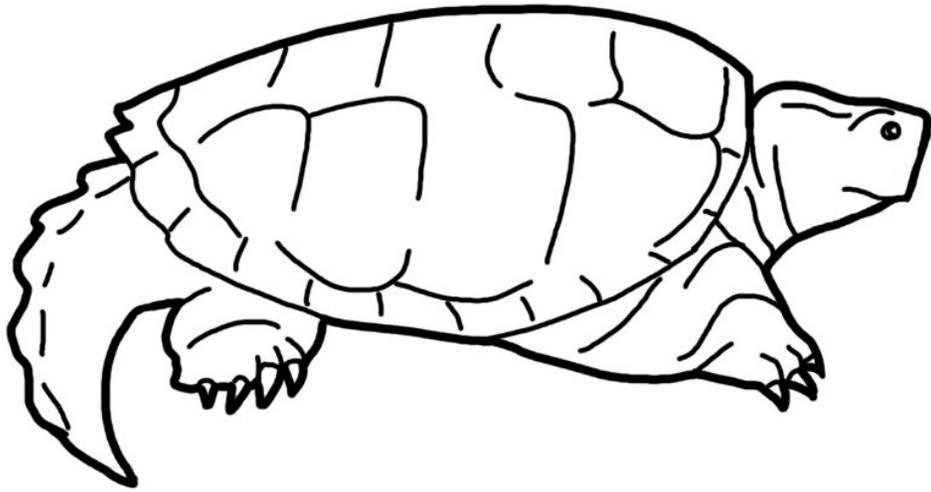
**Traits:** Brown to pink with white lips and a dark brown mask

**Size:** 1 to 3 inches

**Habitat:** Wet spots in the forest; lay eggs in vernal pools in the spring

**Song:** Chuckle or duck-like quack

## COMMON SNAPPING TURTLE

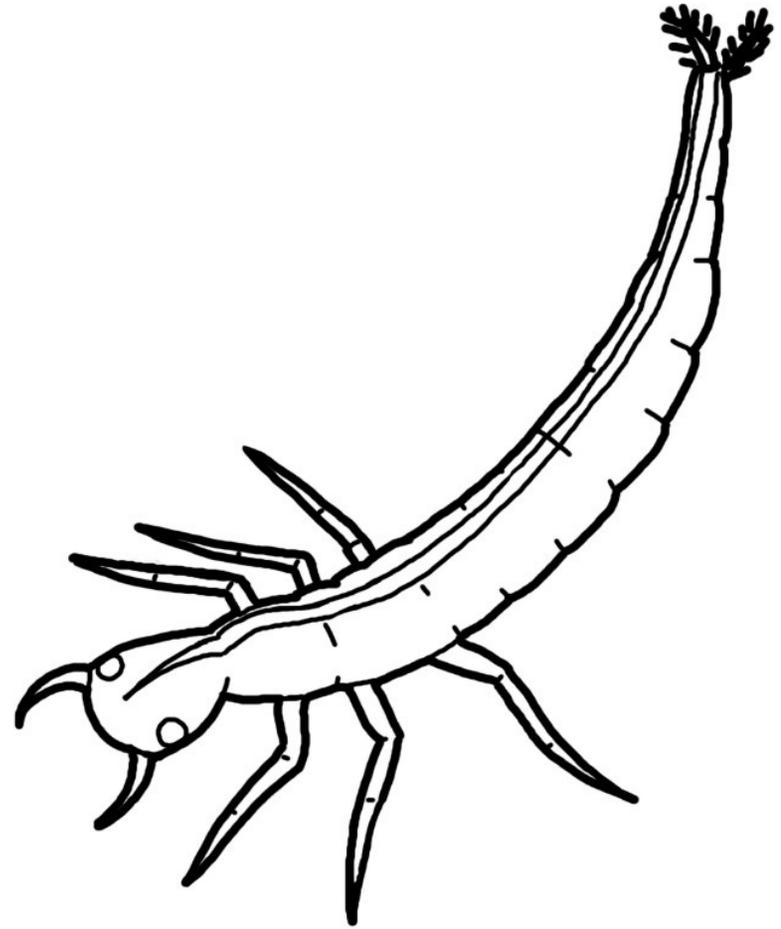


**Scientific name:** *Chelydra serpentina*

**Traits:** Brown, with spikes along the top of the tail and back of the shell

**Size:** Shell up to 20 inches long

**Habitat:** Lakes, ponds, swamps, streams, rivers; will visit vernal pools to eat tadpoles and insects

PREDACEOUS DIVING BEETLE LARVA  
(WATER TIGER)

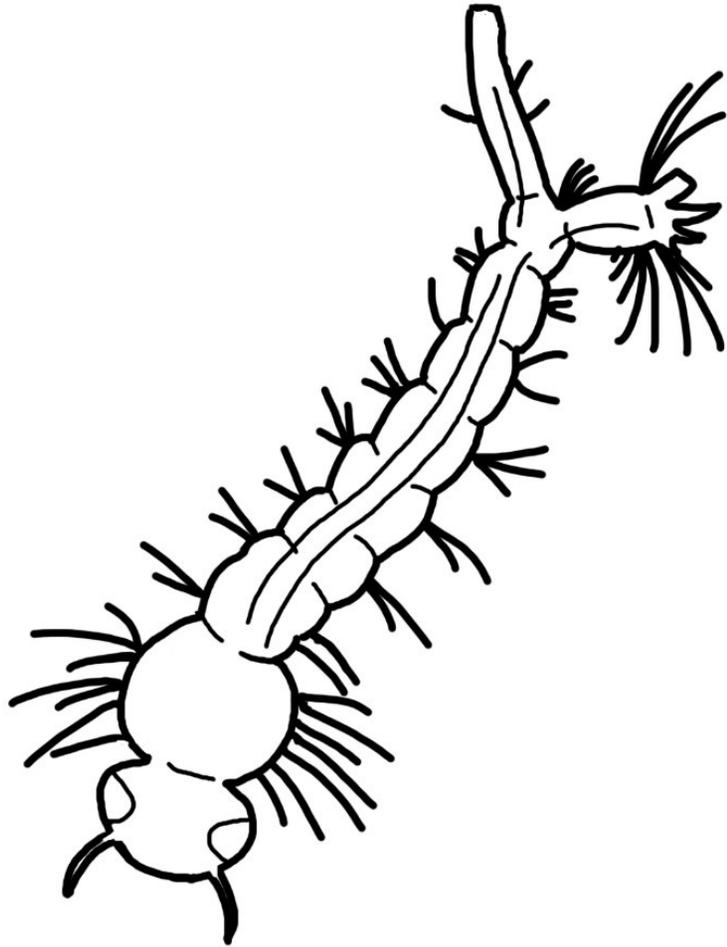
**Order:** Coleoptera (Beetles)

**Traits:** Brown with a thick abdomen and large mouth pinchers

**Size:** 1 to 3 inches

**Habitat:** Slow or still water in vernal pools, ponds, and streams

## MOSQUITO LARVA



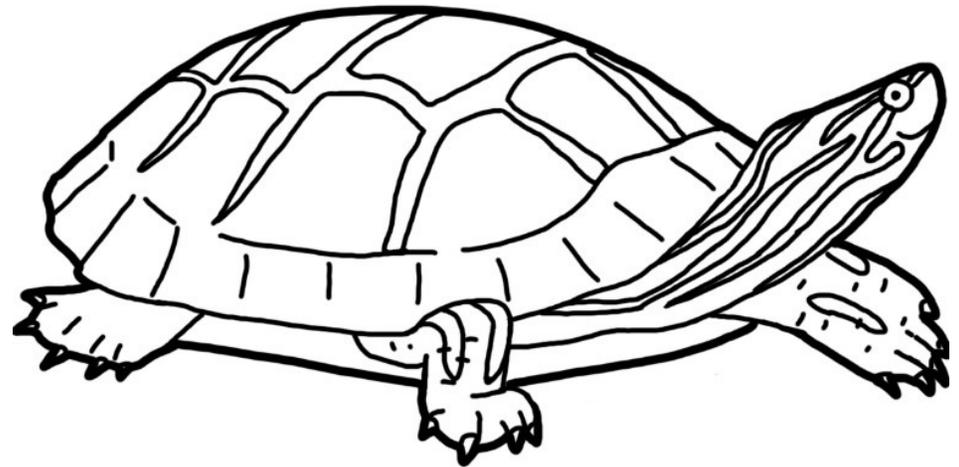
**Order:** Diptera (True Flies)

**Traits:** Brown wriggling body, often resting just under the water surface

**Size:** Up to one half-inch

**Habitat:** Still water such as in swamps, vernal pools, ditches, and bird baths

## PAINTED TURTLE



**Scientific name:** *Chrysemys picta*

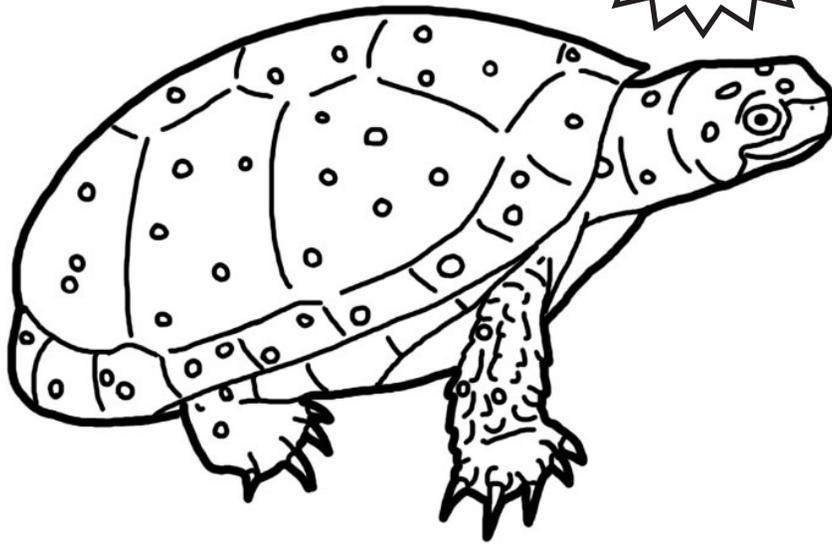
**Traits:** Dark green, brown, or black shell with scales outlined in light brown; underside of the edge of the top shell has red lines outlined in black; yellow belly

**Size:** Shell up to 7 inches long

**Habitat:** Ponds, lakes, swamps, and streams; will visit vernal pools to eat tadpoles and insects

SPOTTED TURTLE

Maine  
Threatened  
Species



**Scientific name:** *Clemmys guttata*

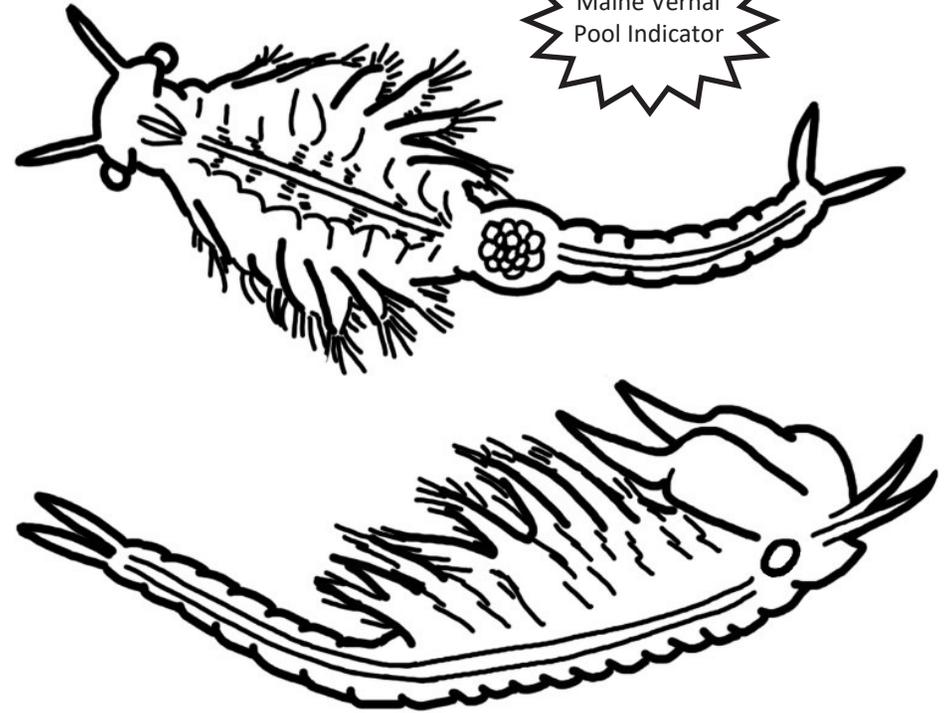
**Traits:** Black with yellow spots; females have yellow chins

**Size:** Shell is 3 to 5 inches

**Habitat:** Vernal pools, swamps, shallow ponds, fields, and forests

FAIRY SHRIMP

Maine Vernal  
Pool Indicator



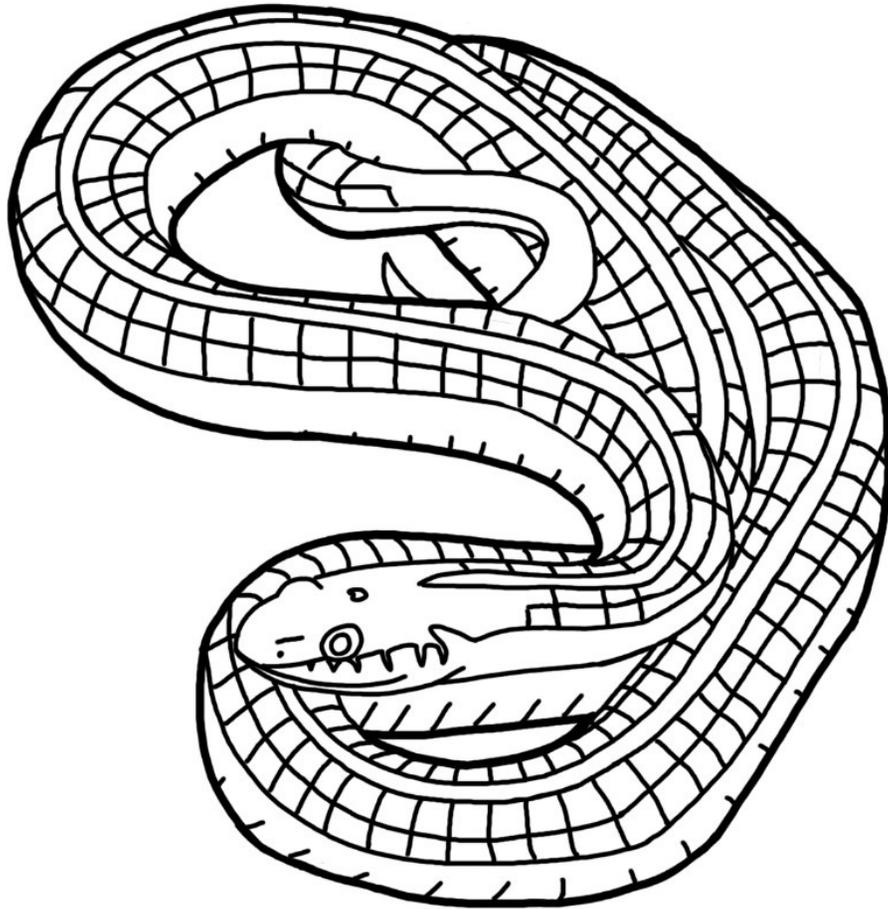
**Order:** Anostraca (Fairy Shrimp)

**Traits:** Pink to orange; swim on their back by paddling their legs; females carry eggs on their back

**Size:** One half-inch to 2 inches

**Habitat:** Vernal pools

COMMON GARTER SNAKE



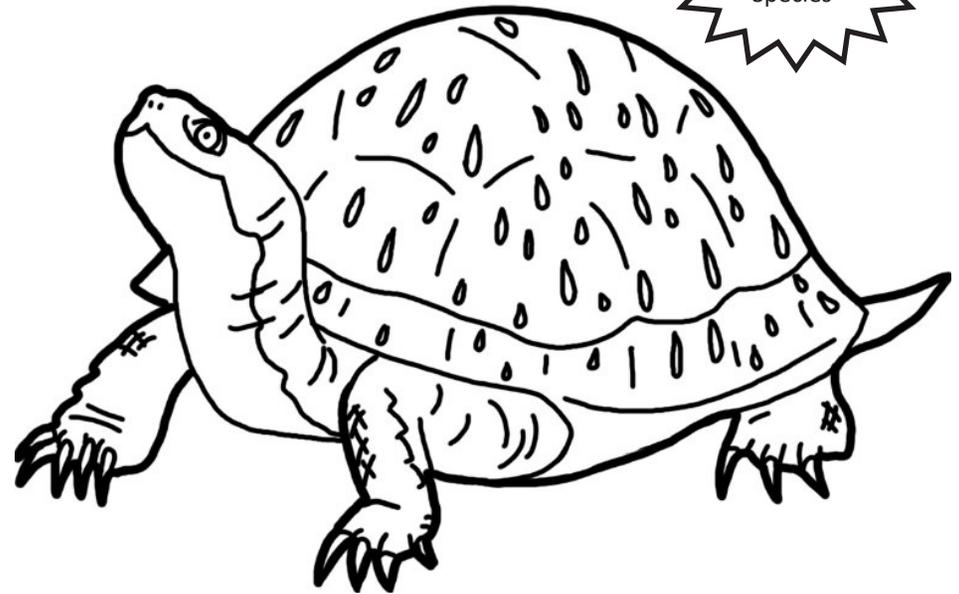
**Scientific name:** *Thamnophis sirtalis*

**Traits:** Brown or black with yellow stripes; area between stripes is checkered with light and dark squares; light belly; lips have faint stripes

**Size:** 9 to 25 inches

**Habitat:** Forests, fields, and swamps; often visit vernal pools to eat frogs and slugs

BLANDING'S TURTLE



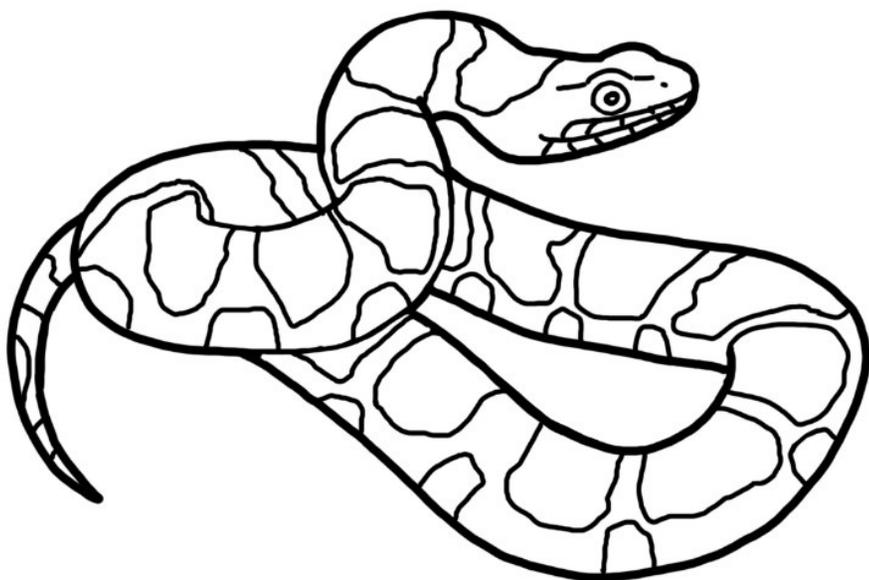
**Scientific name:** *Emydoidea blandingii*

**Traits:** Black shell with yellow streaks that look like dripped paint; yellow chin and throat

**Size:** Shell 7 to 9 inches

**Habitat:** Ponds, marshes, and swamps; will stop at vernal pools to rest before laying eggs on land

## NORTHERN WATER SNAKE



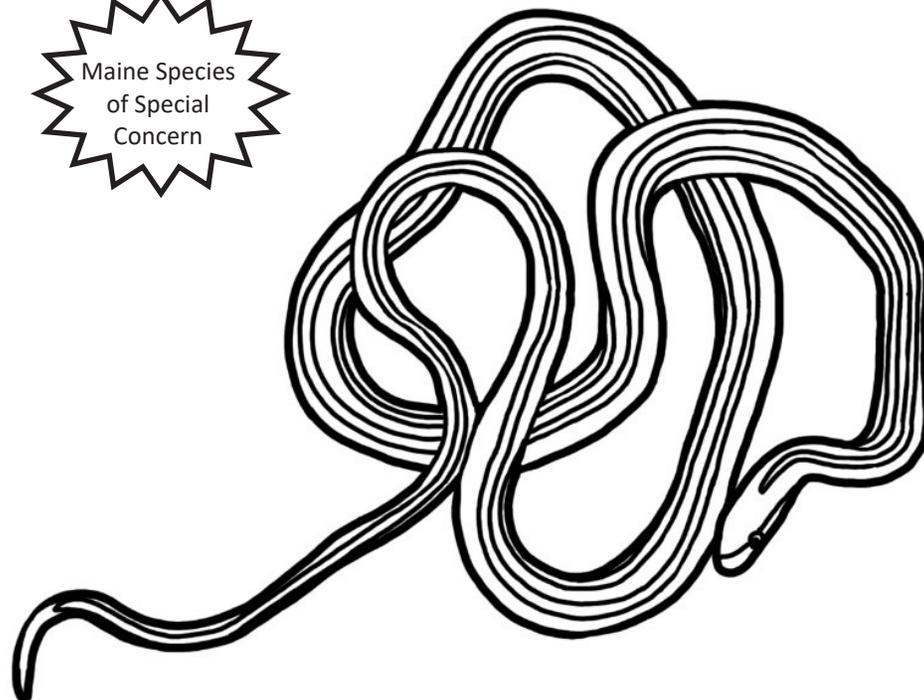
**Scientific name:** *Nerodia sipedon*

**Traits:** Brown to gray with brown, black, or red blotches

**Size:** 24 to 42 inches

**Habitat:** Ponds, lakes, streams, vernal pools, and swamps;  
often found basking in sunny spots along the edge of the water

## RIBBON SNAKE



**Scientific name:** *Thamnophis sauritus*

**Traits:** Dark brown or black body with yellow stripes and a light belly; no checkers on their sides nor stripes on their lips

**Size:** Up to 28 inches

**Habitat:** Ponds, streams, swamps, and vernal pools