

Species at Risk on Your Farm



Species Index:

Milksnake*1



Fowler's toad*4



American badger *2



Redside dace*5



Little brown bat



Bobolink*6



Monarch butterfly*3



Snapping turtle



American chestnut



*1. Photo by Ryan M. Bolton
*2. Photo by Richard Klafki
*3. Photo by Robert McCaw
*4. Photo by Robert McCaw

*5. Photo by Brian Zimmerman, NANFA.org
*6. Photo by Kelly Colgan Azar

Welcome Junior Farmers and Young Keepers of Our Land!

Your farm is a huge **ecosystem** that provides a home, or what is called a **habitat**, to many different species of birds, reptiles, fish, amphibians, insects, plants, and mammals. Did you know that you and your family are also part of the ecosystem? That is because you are mammals!

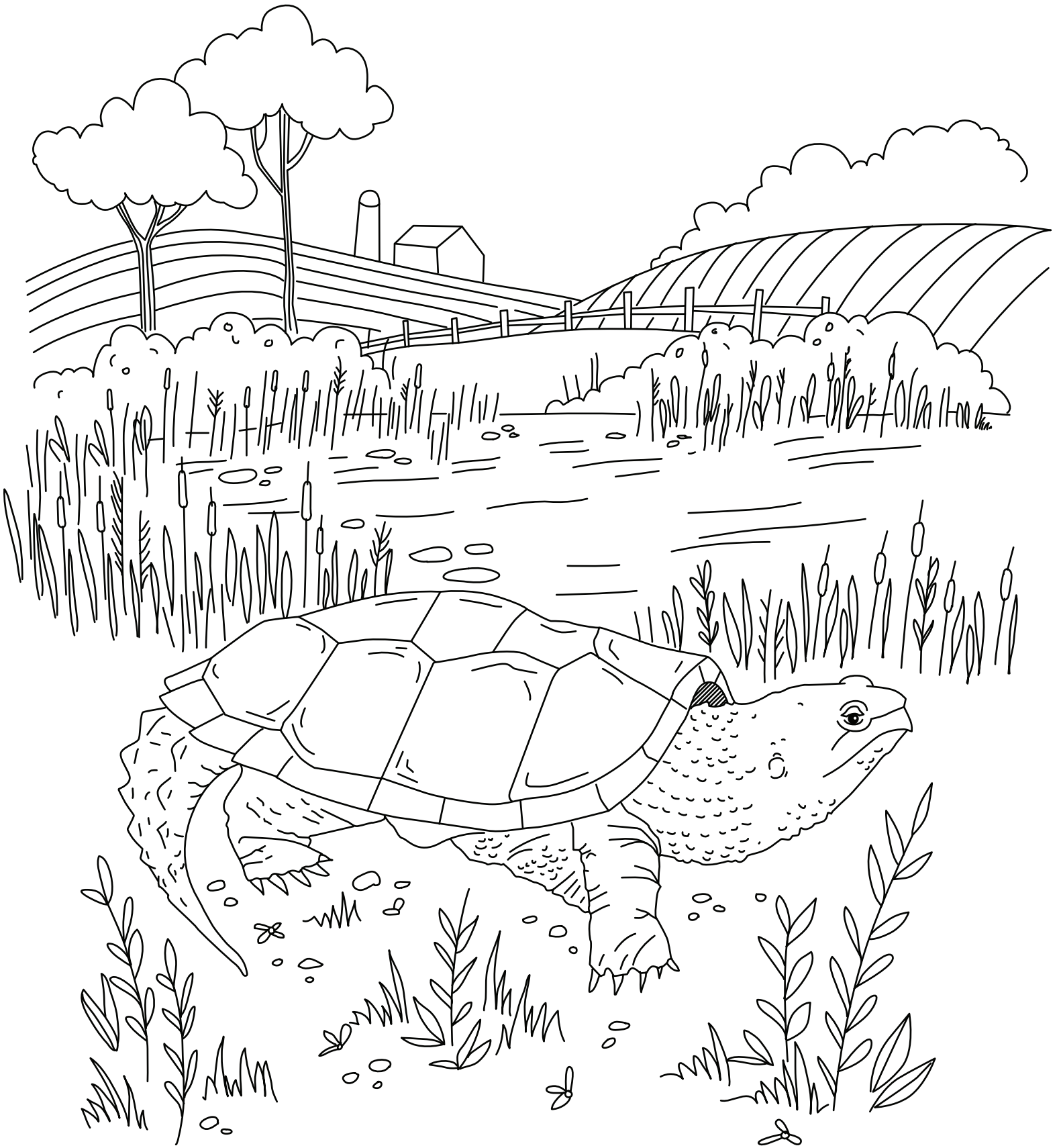
Some of the animals that call your farm home may be **species at risk**. This means that the habitat or food for these animals is changing, or disappearing, and that causes them to be in danger. If there are not enough places for these animals to live, or things for them to eat, they may not be able to survive in Ontario for much longer. With a bit of looking, you might be able to spot a few of these species on your farm. But some are so rare that only a few people have ever seen them!

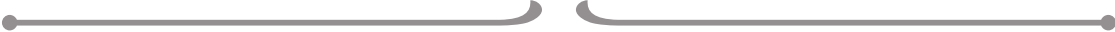
This book will help you get know 9 of the over 200 species at risk in Ontario. It will also give you some tips on what you can do on your farm to help these species, and maybe get a few more of them to call your farm home!

Snapping Turtle


Most of the snapping turtles you will meet are older than you are, making them the old wise guys of Ontario's wetlands. Did you know that snapping turtles can live up to 70 years? The fierce reputation of snappers is due to the fact that snapping turtles cannot pull their heads into their shells like other turtles, so snapping is how they protect themselves from predators and things they think are dangerous.

Although their jaws can be fast, the snapping turtle moves very slowly on land. They carry big black, olive, or brown shells and they have long tails with spikes, like a dinosaur. You could stumble across a snapping turtle in almost any waterbody, but they prefer slow-moving waterways with soft bottoms. Ditches, wetlands, and ponds are the most likely places for you to find a snapper on your farm.





We can help make sure the snapper continues to thrive. Restoring ponds and wetlands on your farm can give snapping turtles a place to call home. What is better than just a wetland? Provide a safe and sandy area for nesting, so the loonie-sized snapper hatchlings can take their time to grow up into the next generation of old wise guys.



Show us how you would help protect the habitat of these turtles.



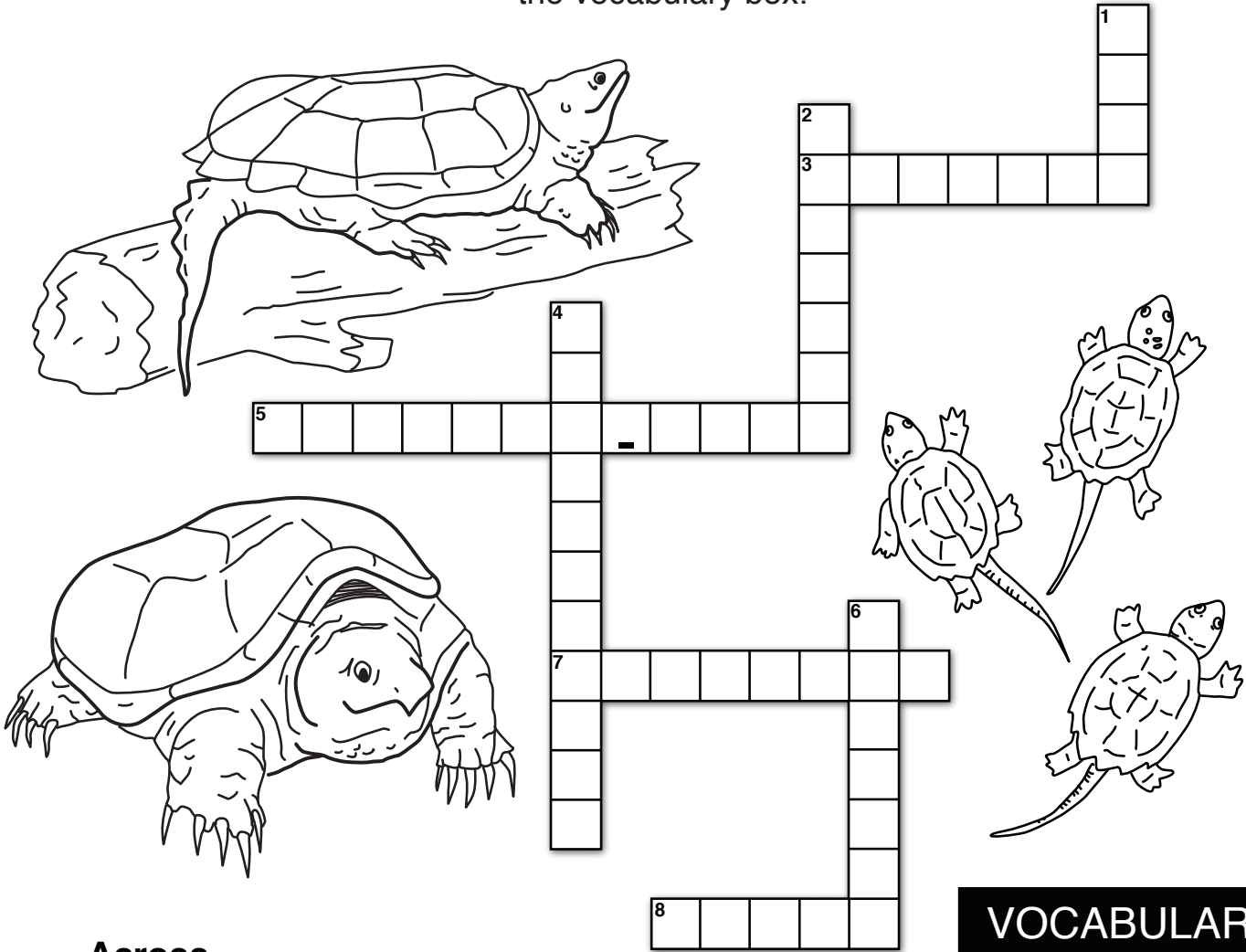


The list of things that put the snapping turtle at risk is long: habitat loss, pollution, predators (like raccoons who dig up snapper nests), and dangerous roads. These all play a role in the shrinking of snapping turtle populations.



Snapping Turtle Crossword

Use the clues to complete the crossword puzzle with words from the vocabulary box.



Across

3. Omnivores like snapping turtles eat plants and _____.
5. The biggest threat to the snapping turtle is _____.
7. Snapping turtles have long tails with spikes, almost like a _____.
8. Snapping turtles like to live in slow, shallow water, like wetlands, ditches and _____.

Down

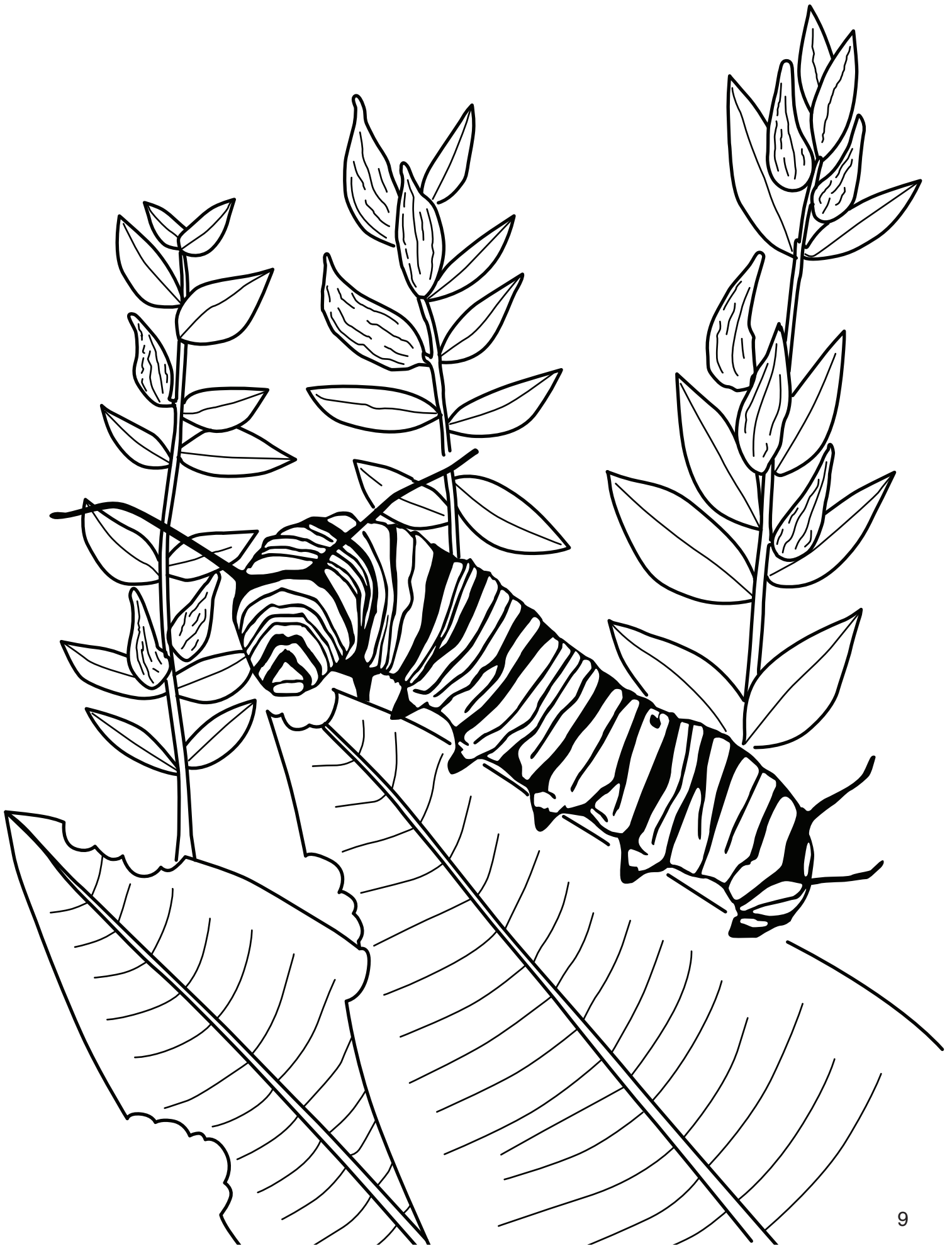
1. Snapping turtles lay _____ in nests.
2. _____ like to dig up turtle nests and eat the eggs.
4. Protect snapping turtles by keeping livestock out of _____.
6. Planting bushes and grasses around ponds is great for _____.

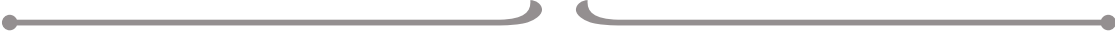
VOCABULARY:

EGGS
TURTLES
PONDS
WATERBODIES
ANIMALS
RACOONS
HABITAT_LOSS
DINOSAUR


Monarch Butterfly

The monarch is a master of the makeover because they end up looking nothing like how they started. The monarch begins life as an egg, then hatches into a black, white, and yellow striped caterpillar, and finally ends up as a beautiful orange and black butterfly. Being a picky eater, the monarch caterpillar eats only the leaves of the milkweed plant. Although they find it tasty, milkweed is not for everyone because it actually contains a ***toxin*** that is dangerous for many other species. Monarchs store this toxin in their bodies to help protect themselves against predators!





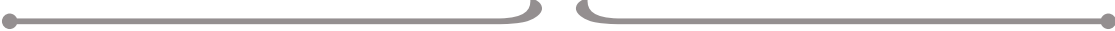
Once the monarch caterpillar becomes a butterfly, it is ready for an adventure! The monarch flies through farm fields and meadows across Ontario on the hunt for food. They love to feed on the nectar of a variety of flowers. While they are getting the benefit of a good meal, the monarchs are also providing a valuable service to everyone else in the ecosystem—***pollination!***



Colour by number.

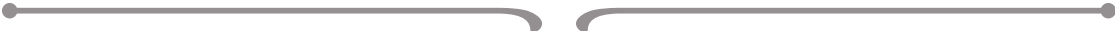


- | | |
|----------------------|-----------------------|
| 1: Orange | 2: Light Green |
| 3: Dark Green | 4: Pink |

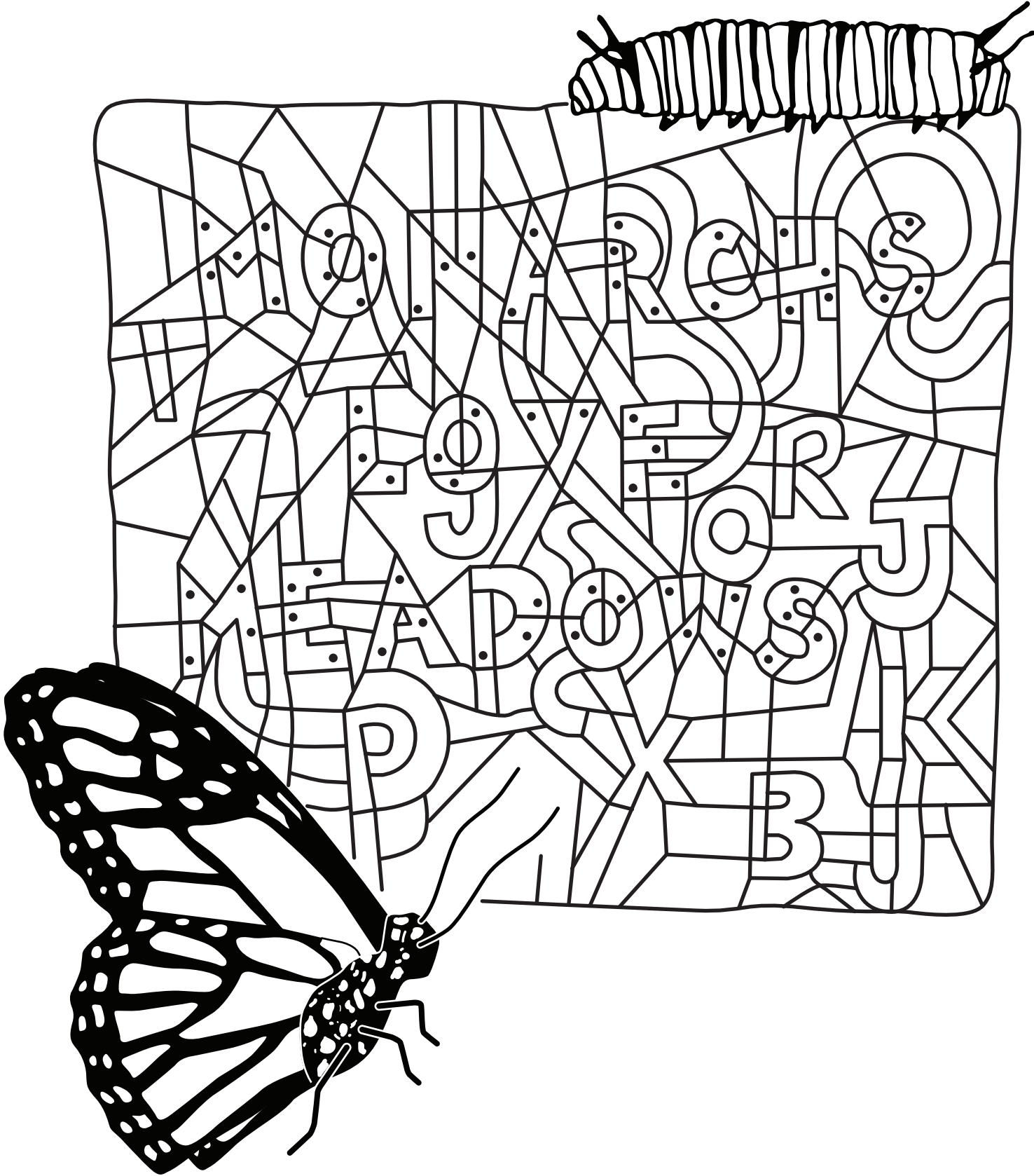


Milkweed has been thought of as a weed for many years—but without milkweed, the monarch caterpillars would go hungry and would not be able to make their amazing transformation into the beautiful butterflies we love.

By allowing milkweed and other wildflowers to grow in fencerows on your farm, monarchs will come from far and wide to lay their eggs and munch away as happy caterpillars. When they grow up, the butterflies will help to pollinate other plants, which is very important for growing food.



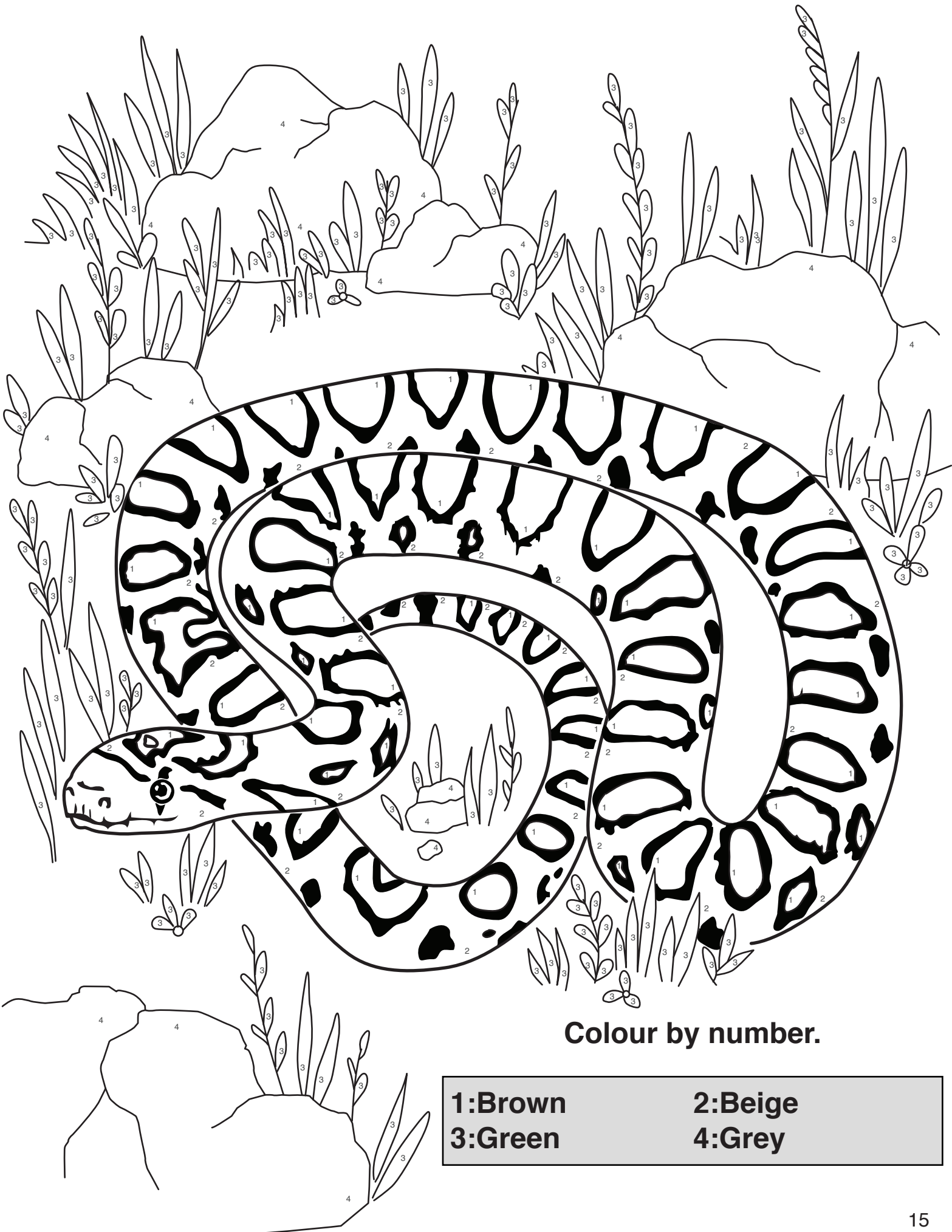
Colour the shapes with dots inside to reveal the hidden message.



Milksnake

Milksnakes love to hang around old barns across Ontario. They were so often spotted in barn buildings that we used to think they were drinking the cows' milk—that is how they got their name. Actually, the milksnake's favourite meal can be found running around barn floors and across beams — mice!

Unfortunately, the milksnake's beautifully coloured pattern looks very similar to the venomous Massasauga rattlesnake, and they can be easily mistaken for each other. Milksnakes are not venomous at all and do not have a rattle on their tails, so do not be fooled.



Colour by number.

**1:Brown
3:Green**

**2:Beige
4:Grey**

Just like other snakes, the milksnake loves to slither through grasses, especially in fields and along the edges of fields. The milksnake follows its nose to good food and they will go where they can find dinner—which often means your barn. Milksnakes and barn cats have a lot in common: they are both great at taking care of barn pests.

Even as a sneaky predator, the milksnake is having a tough time. There are fewer and fewer of them each year, mostly because of habitat loss. Setting aside some grassy spaces on your farm, or building a place where they can **hibernate** safely, will help the milksnake to stay out of harm's way.

Spot the snakes!

Colour in the farm. How many milksnakes can you find hiding in everyday places?



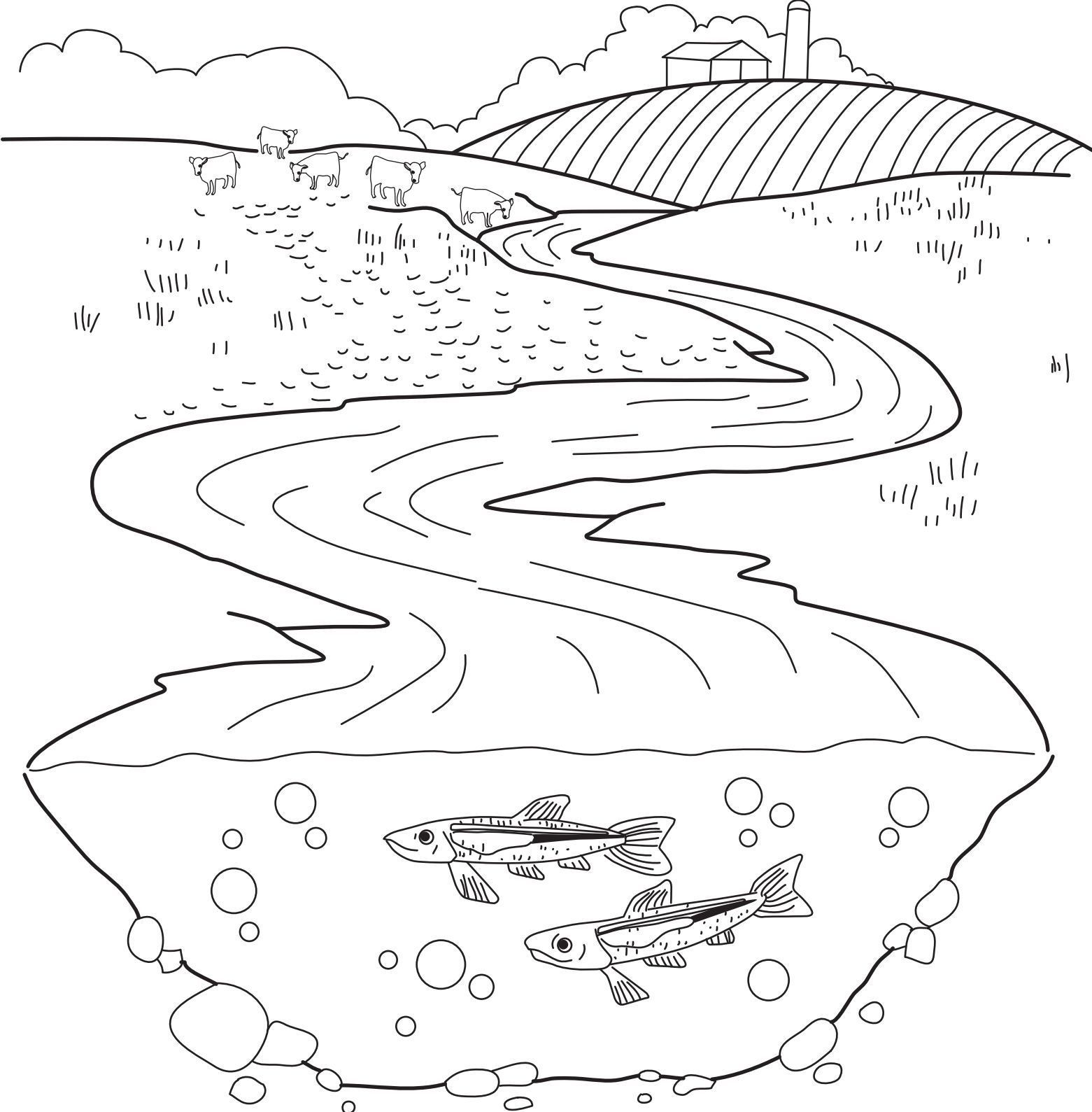
Redside Dace

Our flashy friend, the redside dace, is a fancy cousin in the minnow family. Adults grow up to 12 centimetres long and are very colourful. Just like their name, redside dace have a red stripe on their side with a bright yellow stripe above it. Being a smaller fish, they enjoy swimming in small streams with pebbles on the bottom.

The redside dace likes to keep cool, and will choose a shaded home that has grasses and shrubs that hang over the water. What is the coolest thing about the redside dace? Even though they do not have legs, they are amazing jumpers—they can jump up to 10 centimetres out of the water! But they do not just jump for the fun of it, they are actually catching insects collecting near all those overhanging plants.

If you have a stream on your farm, the redside dace might like to call your farm home. To make them feel even more comfortable, make sure your stream has enough plants and tall grasses to provide shady areas and attract insects for the redside dace to feast on.


What would help these dace? Can you make their home more comfortable?





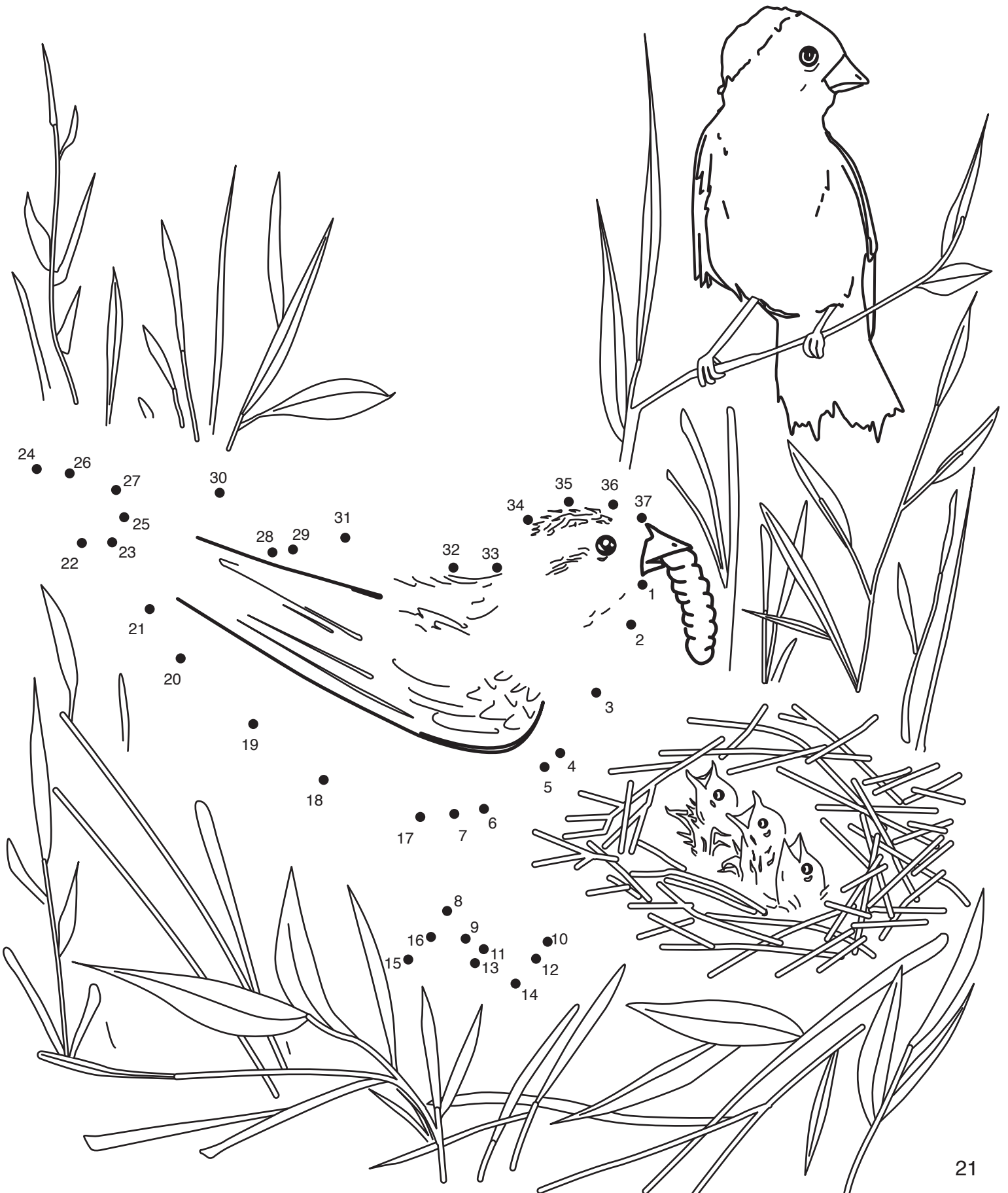
Bobolink


The bobolink, one of our favourite songbirds, is found in hayfields and pastures across Ontario. You might spot a bobolink perched on blades of grass in a hayfield, where they build their nests on the ground to hide them in the tall ***vegetation***. To protect their nest, bobolinks will never fly directly to them. Instead, they land a little ways away and walk through the tall grass to find their families.




Connect the dots

Who is hiding in the grass? Connect the dots to find out.



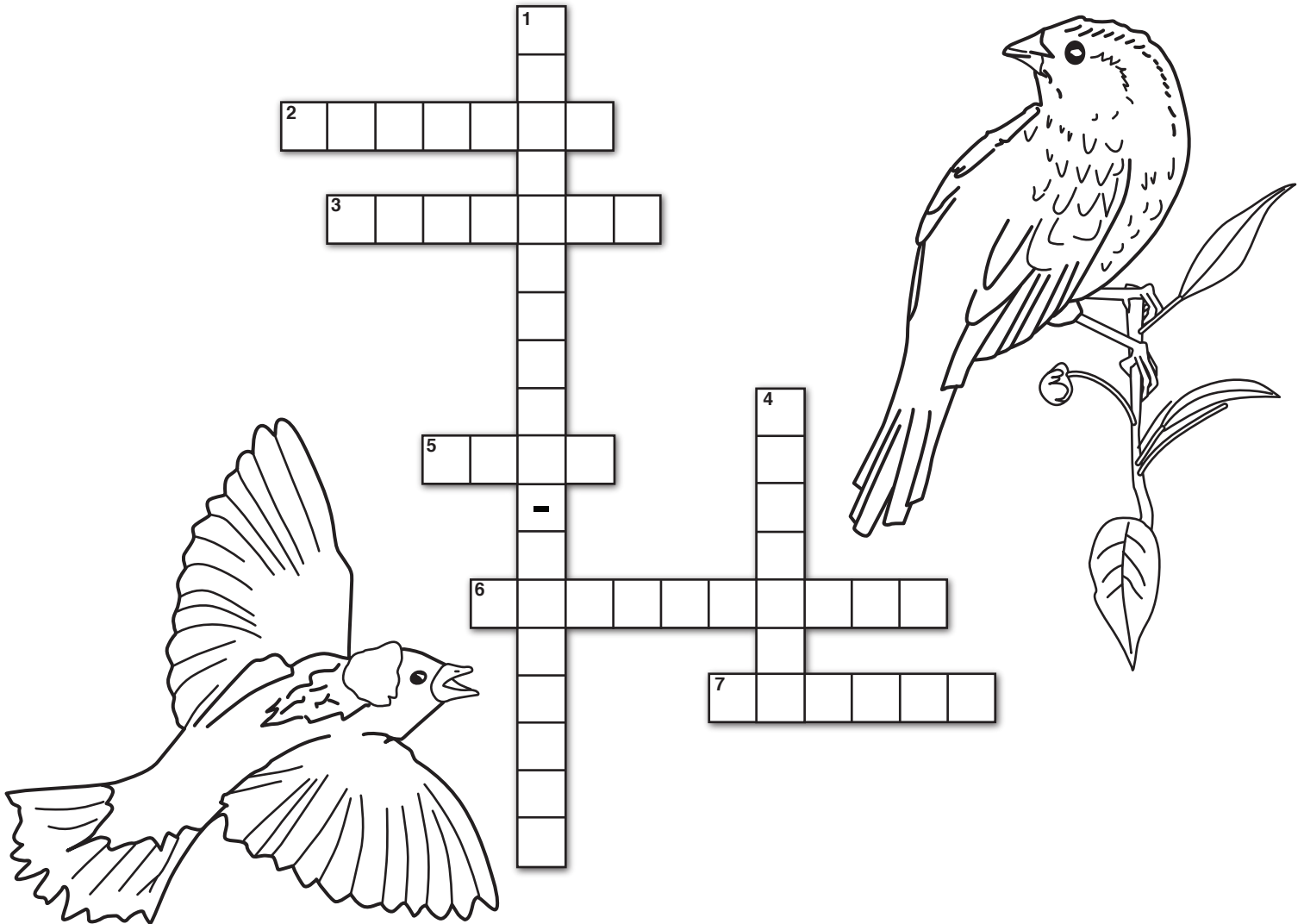


The bobolink is great at flying and can travel long distances. In the winter, you will not be able to find these singing sweethearts in Ontario because they fly to South America to escape the cold. That is right—they fly all the way to a different continent!



Bobolink Crossword

Use the clues to complete the crossword puzzle with words from the vocabulary box.



Across

2. Bobolinks eat seeds and _____.
3. Bobolinks are threatened because they are losing their _____.
5. The best time to harvest hay to protect the bobolink is after _____.
6. Where can you find bobolinks on your farm?
7. Male bobolinks are black, white, and _____.

Down

1. What farming practice helps bobolinks living in pastures?
4. What does the bobolink do in the fall?

VOCABULARY:

MIGRATE
 YELLOW
 ROTATIONAL-GRAZING
 JULY
 GRASSLANDS
 INSECTS
 HABITAT

As brave as the bobolink is, it is also having trouble keeping its population safe. Bobolinks are always looking for the perfect nesting area and they are known for building their nests in farmers' hayfields. They also like to build their nests in pastures where livestock graze, and you can probably already guess that cows do not pay too much attention to little birds that may be in their path.

If you want to hear the bobolink sing its bubbling musical song, sit in a hayfield on a quiet day this spring and listen carefully.

**Can you find the male and female bobolink in the hayfield?
Can you find their nest?**




American Badger


Not many people get to see badgers because these nocturnal animals like to sleep during the day and stay up all night. If you are lucky enough to see a badger you may mistake it for a skunk, because like the skunk, the badger has black and white stripes on its face. And the similarities between the skunk and badger do not end there! Badgers also have a scent gland, just like our smelly friend the skunk.

Although the badger has a reputation for being a rough and tough creature in the wild, there are not many of them left in Canada. The last time ecologists checked, there were only 200 adult badgers in all of Ontario. Badgers love to roam in tall grasses, which means if you are going to spot one, it will likely be along the grassy edges of your farm fields.

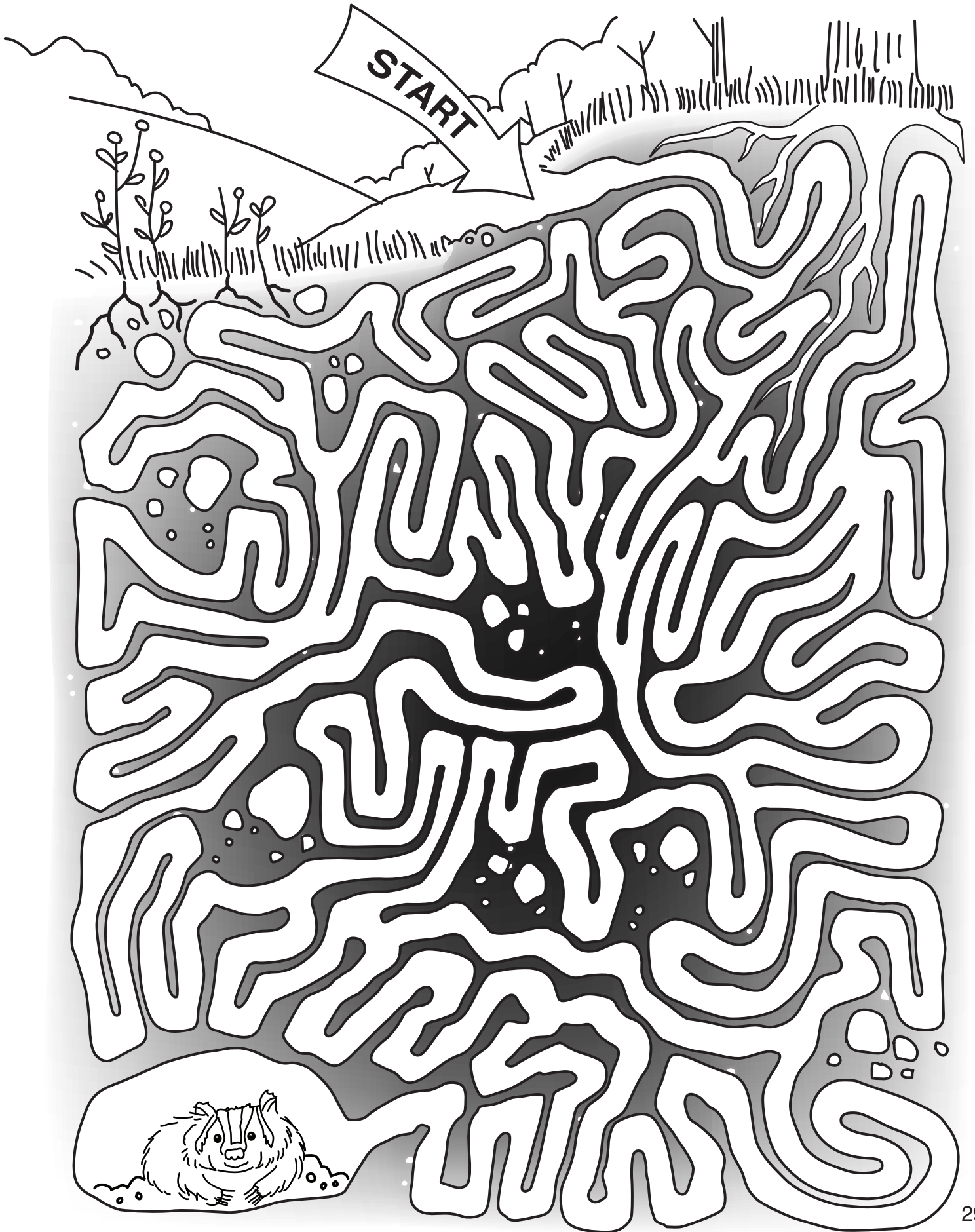




Badgers love to dig and they are great at it! These hard and determined workers can dig their dens up to three metres underground and have over 10 metres of tunnels—that is the length of a school bus!



Find the badger in his den.

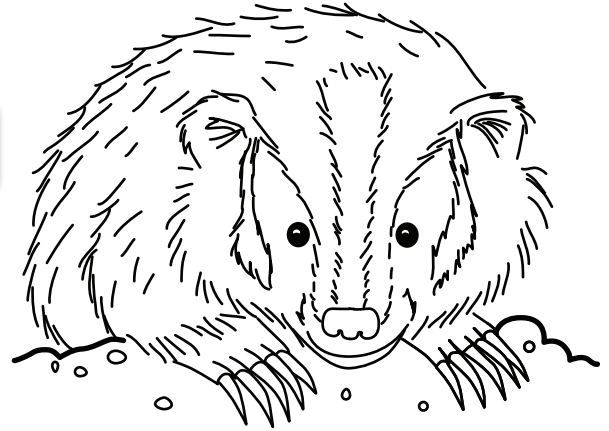
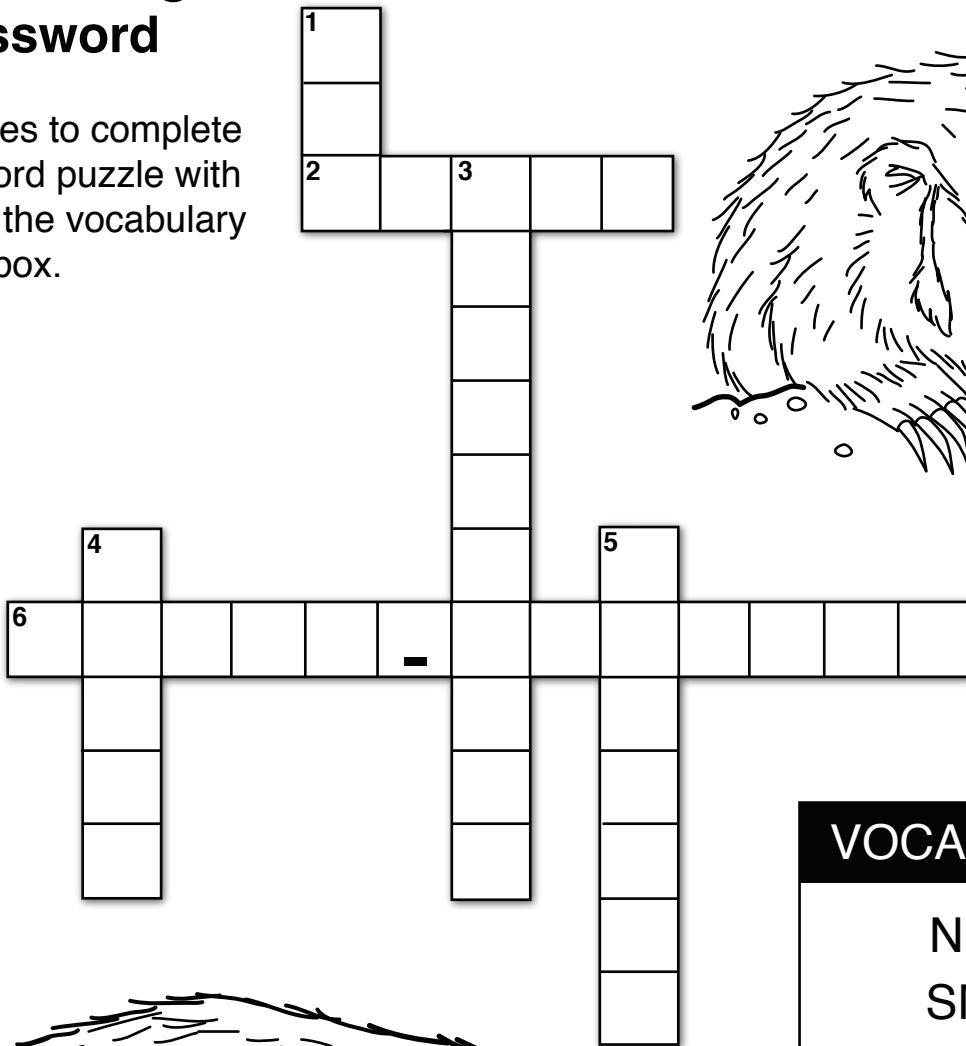


Badgers are solitary creatures, which means they like to travel alone. They will travel across 10 farms to find food. That is a long way to go for a good meal!

Southern Ontario is a great place for a badger to find food and live, but it is also such a busy place that badgers are vulnerable during their travels. What do you think are some hazards that could make a badger's journey difficult, or even life threatening? Sometimes, even the toughest species need your help. By making tall grassy areas available on your farm, you could help a badger call your farm home.

American Badger Crossword

Use the clues to complete the crossword puzzle with words from the vocabulary box.



VOCABULARY:
NIGHT
SMELL
GRASSLANDS
SMALL ANIMALS
DEN
DIGGING

Across

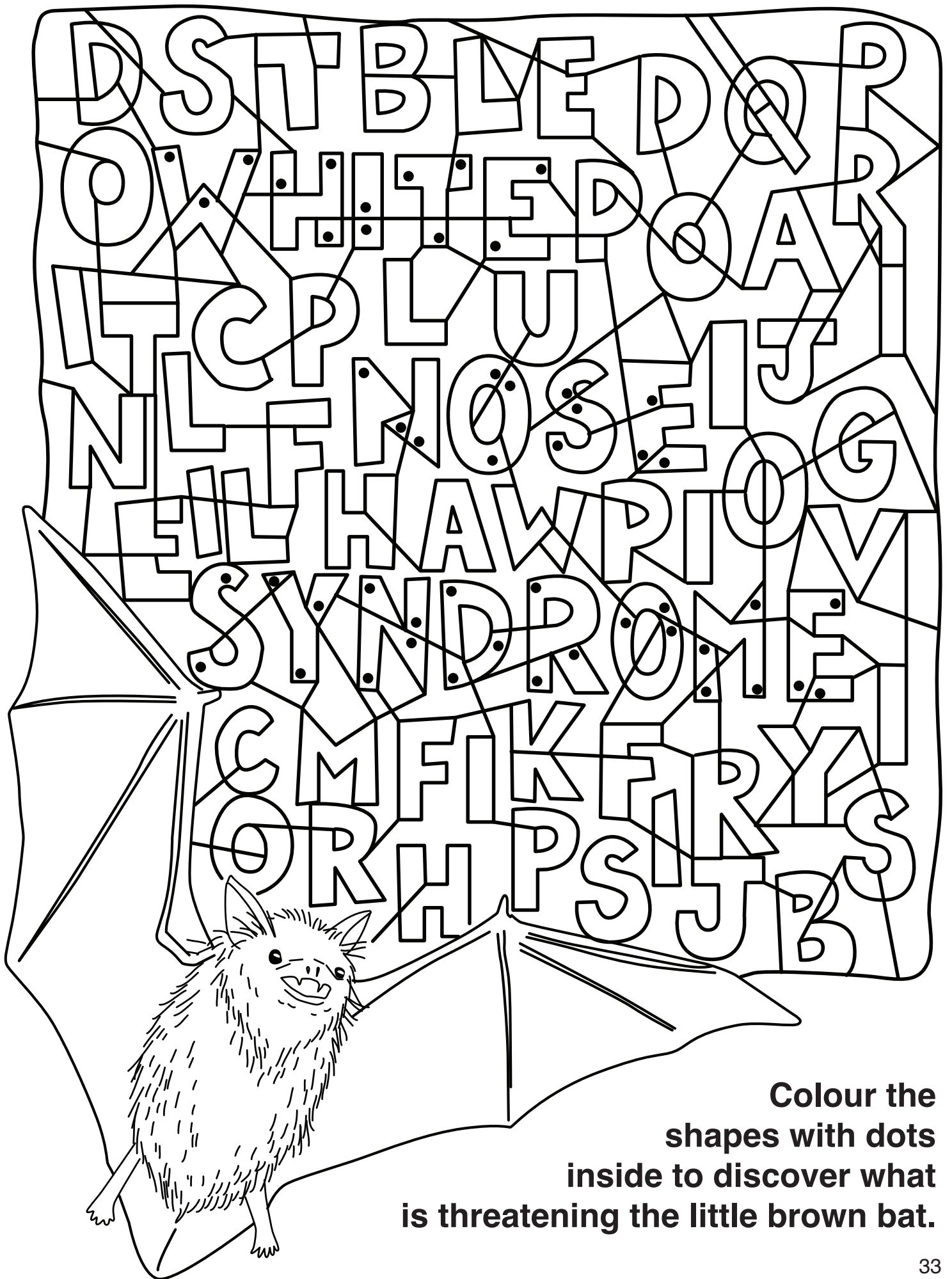
- 2. Badgers are nocturnal which means they are often awake during the _____.
- 6. Badgers eat _____.

Down

- 1. A badger's house is called a _____.
- 3. Badgers are threatened because of the loss of _____.
- 4. When they are scared badgers will release a bad _____.
- 5. Badgers have long claws and strong front arms for _____.

Little Brown Bat

The little brown bat is just what it sounds like—this tiny bat is only four to five centimetres long, about the weight of a loonie, and has glossy brown fur. Even though these night creatures are small, they have a big appetite for insects. The little brown bat catches their insect prey right out of the air and can eat up to 1,000 insects a night! You will find the little brown bat hanging around forests and water because they know there are plenty of flying insects nearby, their favourite snack.



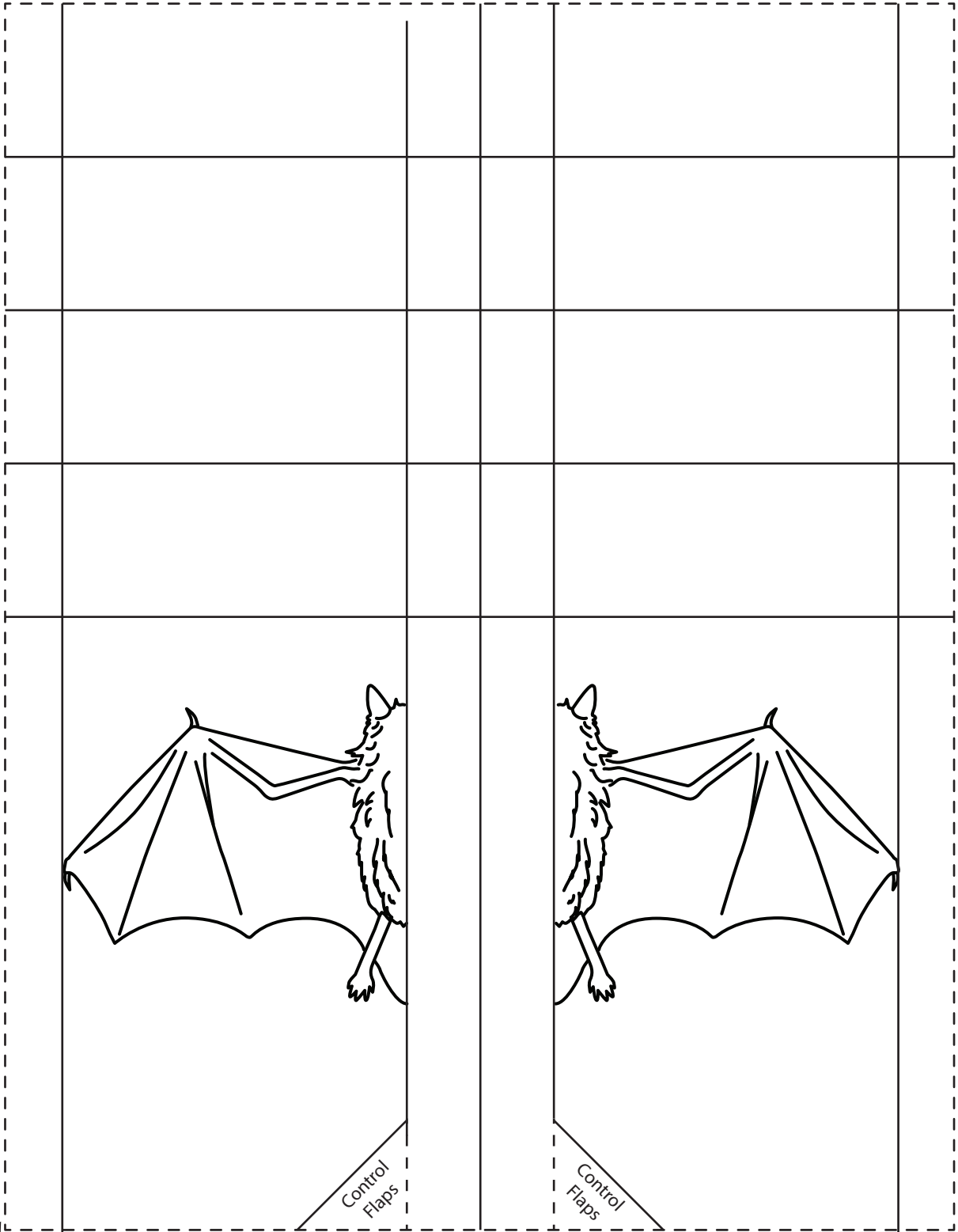
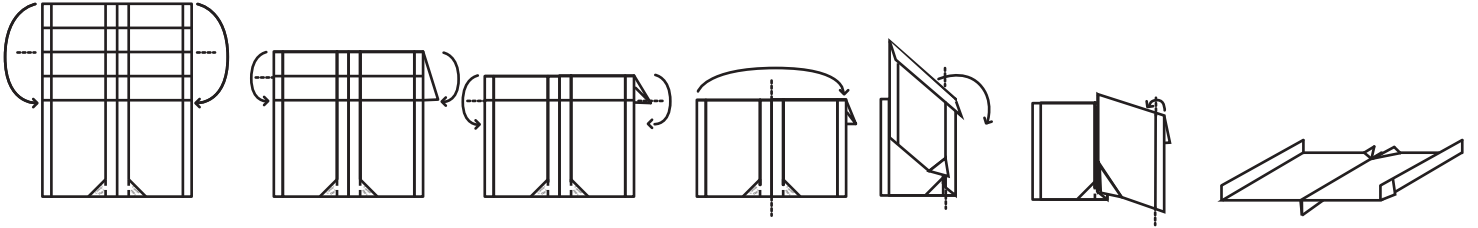
Colour the shapes with dots inside to discover what is threatening the little brown bat.

These flying acrobats hang upside down while they are sleeping during the day. They love attics, abandoned buildings, barns, and bat boxes for their summer homes. In the winter, the little brown bat hibernates in caves or abandoned mines. Lately, these **hibernators** have been less than happy while they are taking their winter nap. A new illness called “white nose syndrome” is waking them up during their winter sleep, and causing big problems.

There is not much you can do to help with white nose syndrome, but building bat boxes can help to make bats feel welcome on your farm during the warmer months. As long as you provide them with a home, they will be happy to eat lots of those pesky insects that are flying around.

Make your own stunt bat!

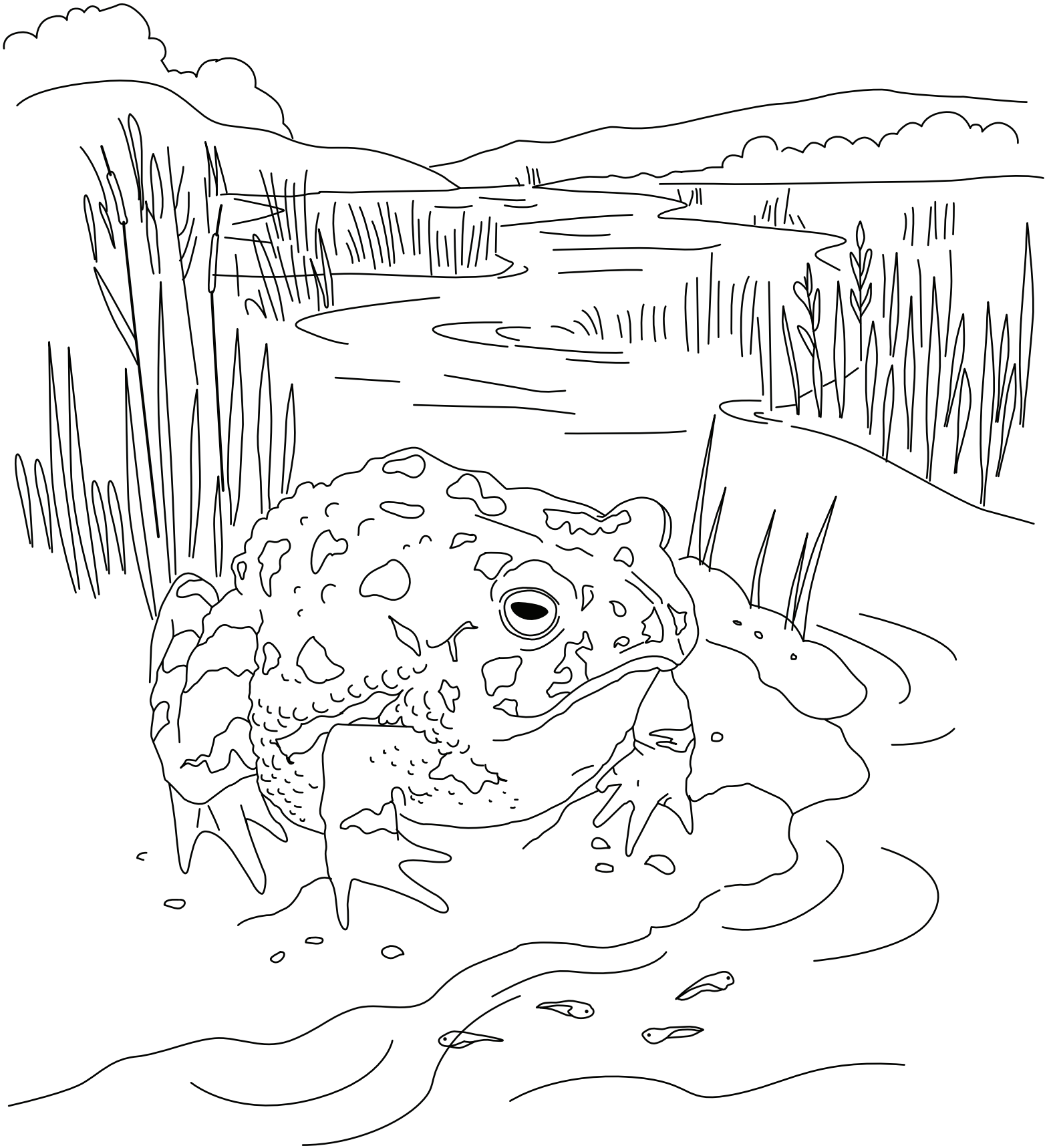
Colour the little brown bat, cut along the dotted lines, and then fold as shown in the instructions below to create your own flying little brown bat!




Fowler's Toad


Sometimes mistaken for a warty fellow, the Fowler's toad is actually just a bumpy buddy! There are only two species of toads in Ontario: the Fowler's toad and the American toad. How can you tell them apart? Fowler's toads have a completely white belly, unlike their American friends who have black blotches on their underside.

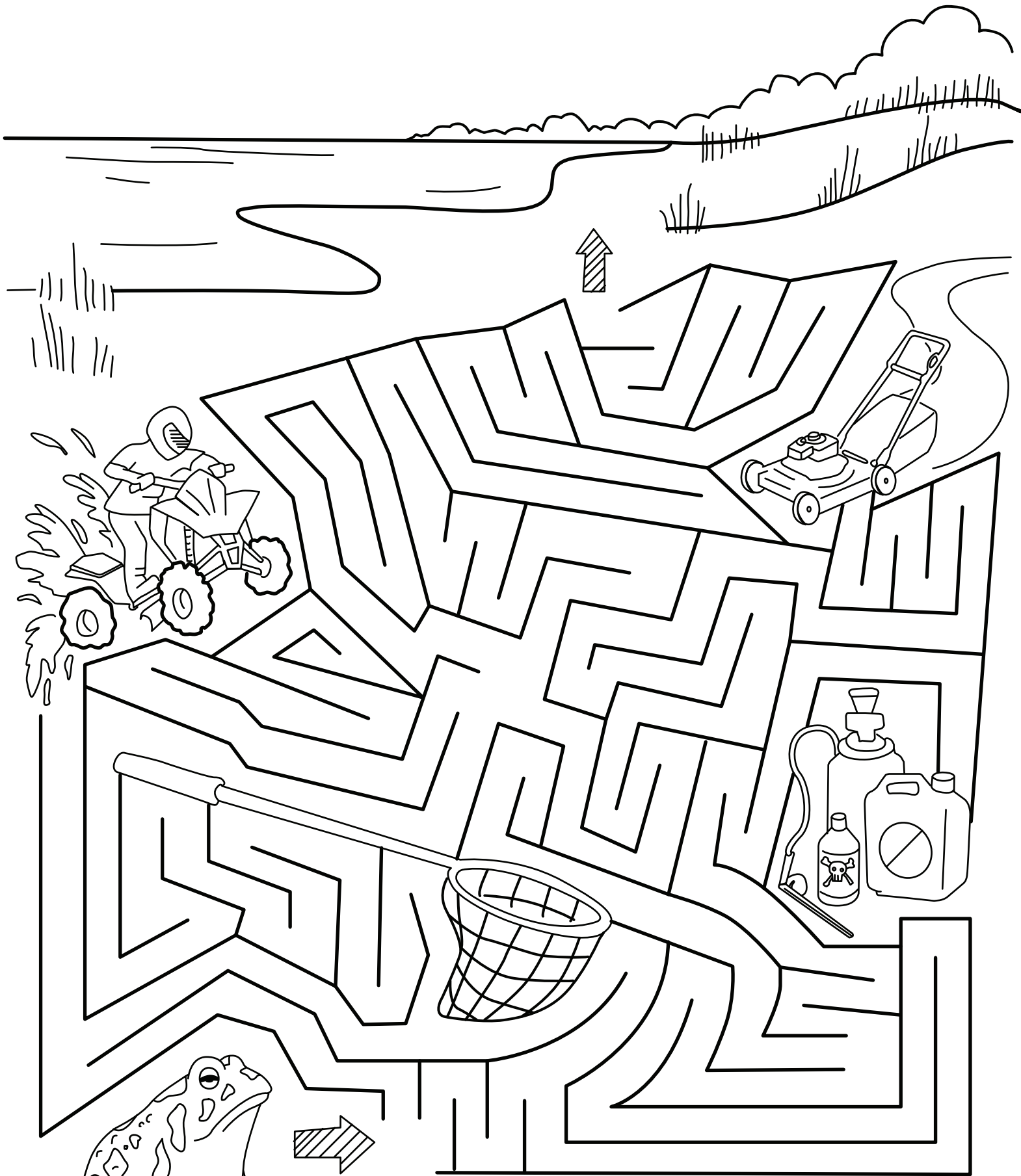
The Fowler's toad likes sandy areas along lakeshores, especially the shores of Lake Erie. The beach life is perfect—Fowler's love the driftwood, plants, and rocks found on beaches because they provide places to hide. Although they love the beach, female Fowler's lay their eggs in wetlands, stream mouths, rock pools, and ponds.





Unfortunately, you are not likely to find our friend the Fowler's toad because there are very few left in Ontario. It is a hard life being a toad. Pesticides and other chemicals are especially dangerous for the Fowler's toad and other amphibians, as their skin is highly absorbent of these toxins. These brave, little, bumpy buddies also have to deal with habitat loss and disturbances to their beach homes—like people riding ATVs. When human visitors drive along the beach, it removes many of the Fowler's hiding spots and makes the sand too hard to dig into. What other activities at the beach might disturb their habitat?

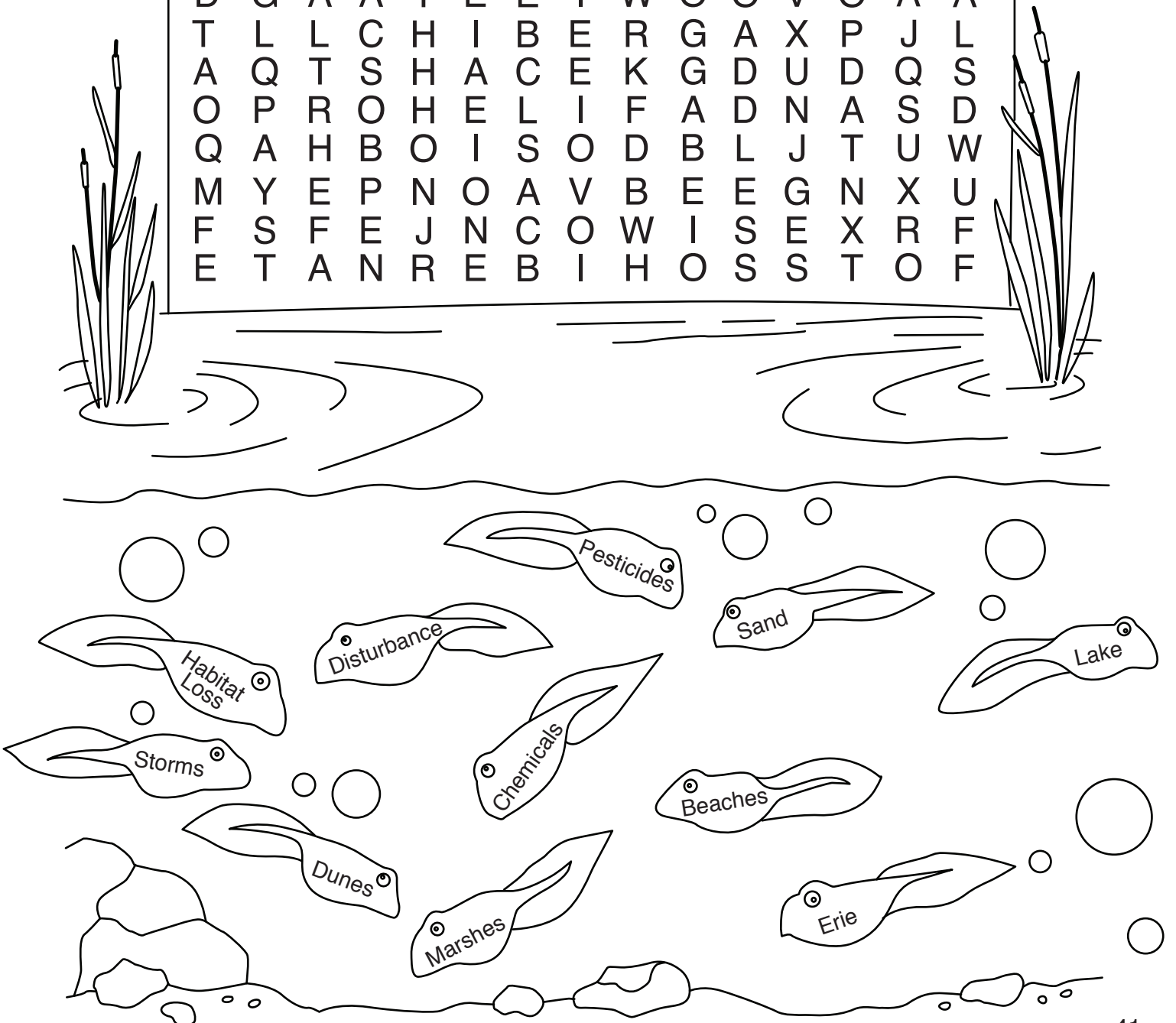




Help the Fowler's toad avoid the threats and get him to his habitat on the beach!

Tadpole pond word search

K	W	A	F	G	X	O	R	R	I	G	G	N	M	S
E	M	V	N	I	R	T	S	A	T	B	I	Y	S	C
X	F	L	E	V	S	E	Q	X	N	D	T	O	T	H
D	I	S	T	U	R	B	A	N	C	E	L	W	O	R
X	P	E	E	G	I	N	S	E	C	T	S	P	R	M
B	J	E	I	I	L	G	Y	A	A	H	S	E	L	I
M	E	U	S	J	R	S	A	T	E	H	V	L	S	C
D	G	A	A	T	E	E	I	W	O	O	V	L	O	A
T	L	L	C	H	I	B	E	R	G	A	X	P	J	Q
A	Q	T	R	H	A	C	E	K	G	D	U	D	A	S
O	P	R	O	H	E	L	I	F	A	D	N	A	T	S
Q	A	H	B	O	I	S	O	D	B	L	J	T	U	X
M	Y	E	P	N	O	A	V	B	E	E	G	N	X	R
F	S	F	E	J	R	E	B	I	H	O	S	T	O	F



American Chestnut

The American chestnut was once found all across Ontario's *landscape*. This strong tree is made weak by disease, and what hurts them the most is a disease called the chestnut blight. It has infected almost all of the American chestnuts in Ontario. When a chestnut tree becomes infected, the top dies off, but often the roots remain healthy. If that happens, sometimes trees can re-sprout from the stump.

American Chestnut

**Chestnut burs
(summer)**



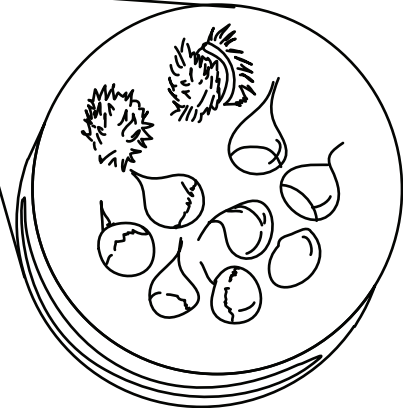
**Leaves
(spring/ summer)**



**Flowers or catkins
(spring)**



Bark



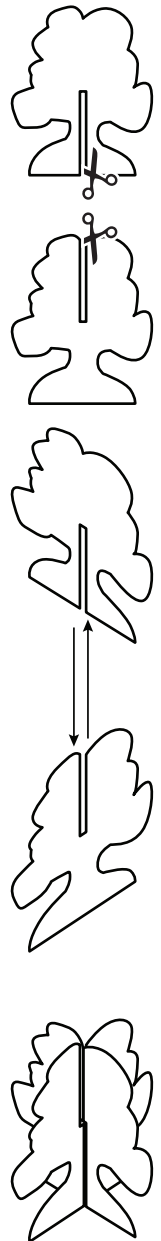
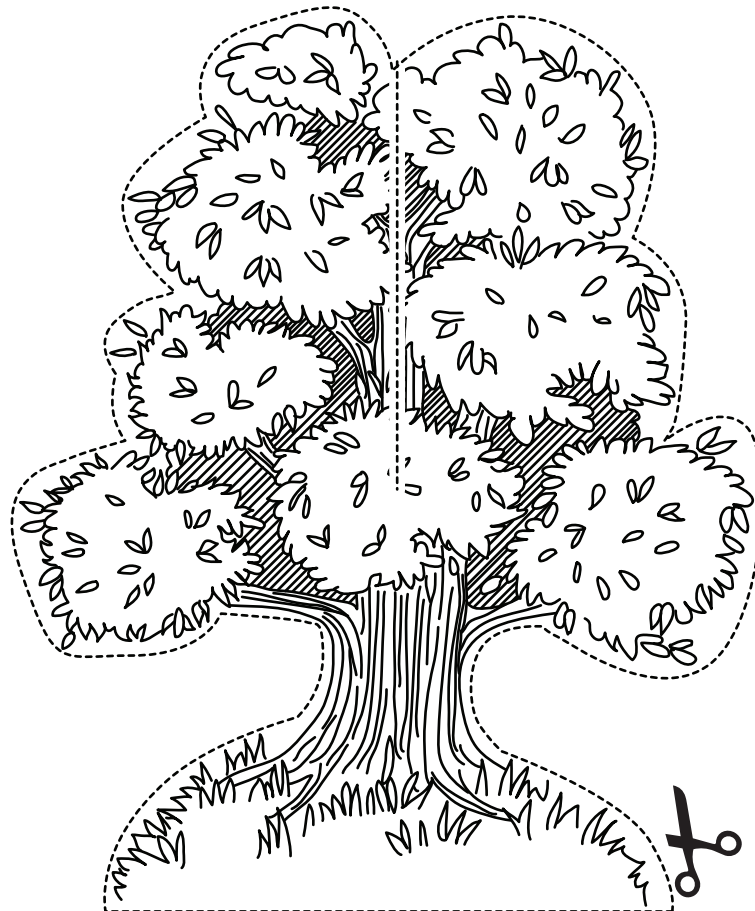
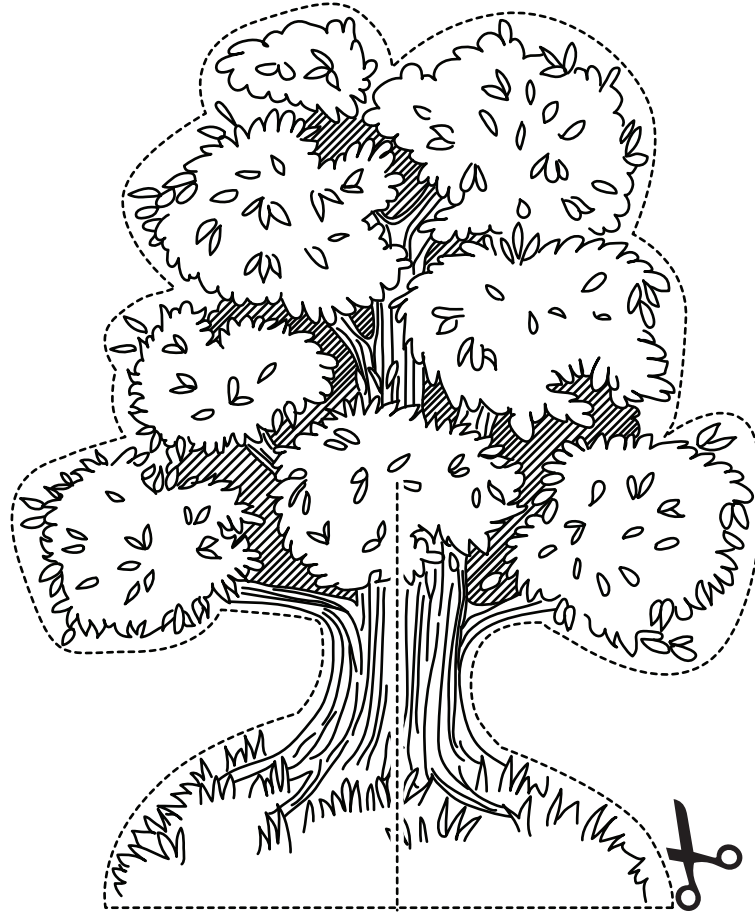
**Chestnuts
(fall)**



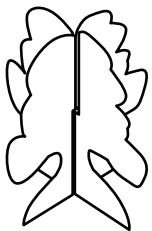
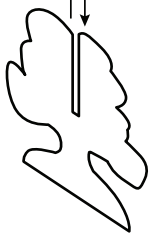
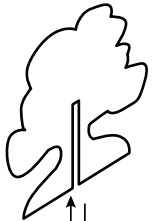
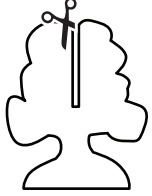
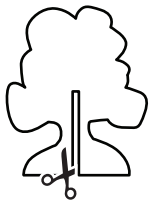
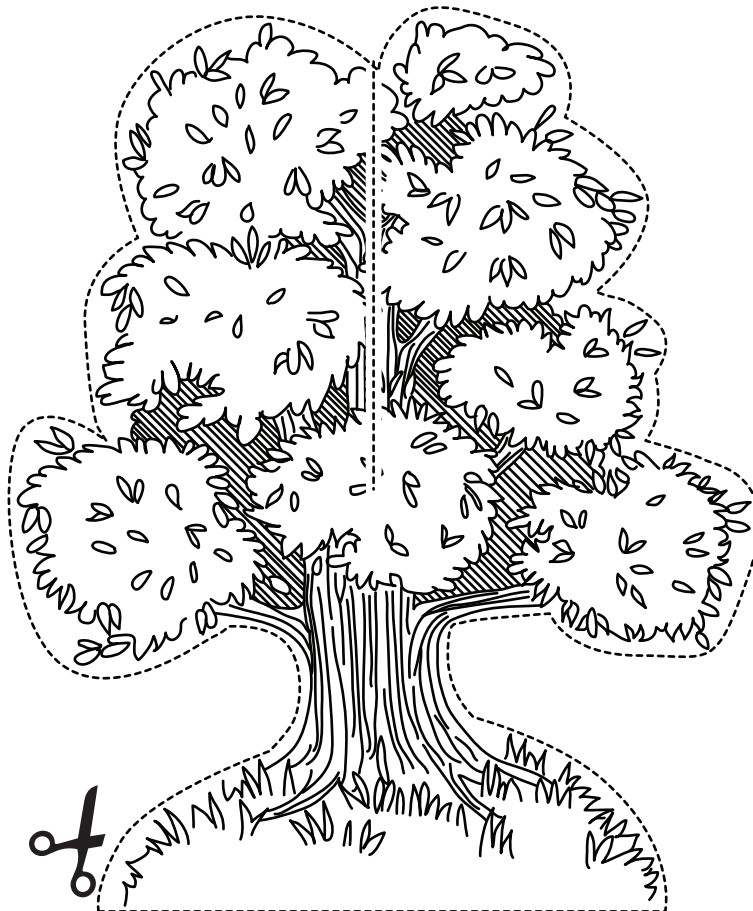
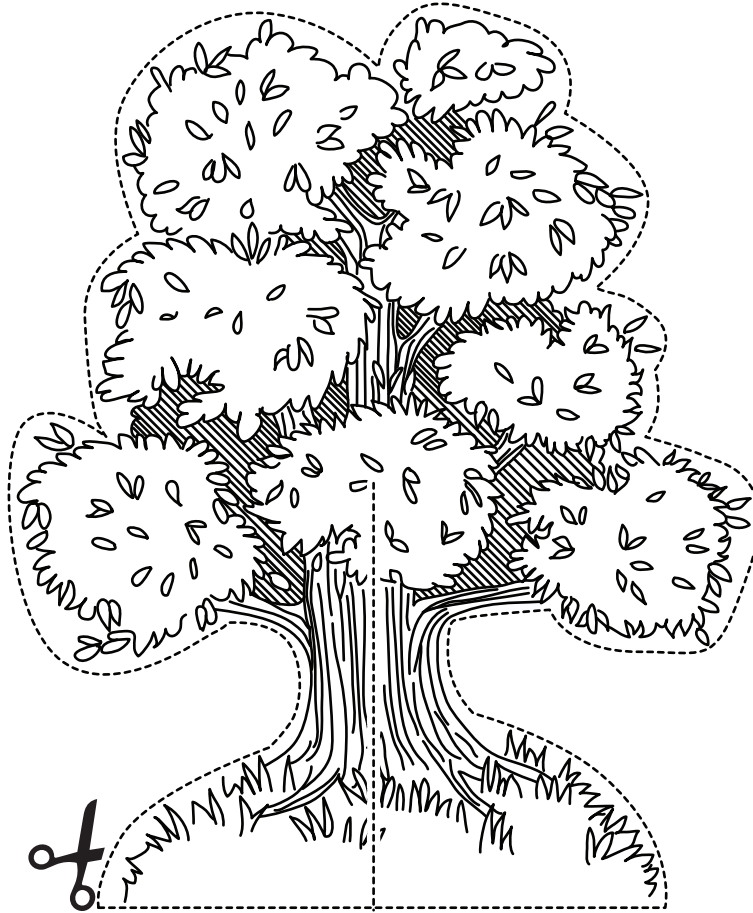
Most of the American chestnut trees you will see now are young and only about 10 metres tall (just a bit taller than most two story houses), but with time healthy chestnut trees can grow up to three times that height. Chestnut trees produce a delicious nut, the chestnut, which is hidden inside spiny husks called burs. The leaves of the American chestnut can be up to 30 centimetres long and 10 centimetres wide. That is as long as the ruler in your desk at school and about as wide as your hand. As the chestnut grows, its smooth, grey-brown bark will start to crack—just like it is getting wrinkles in its old age.

Helping the American chestnut tree could be as simple as planting some trees on your farm. With a little effort and a little luck, you can help chestnut trees to grow up to stand tall, strong, and proud.

Cut along the dotted line and then connect the two pieces to make your very own American chestnut tree.

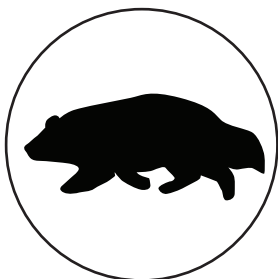
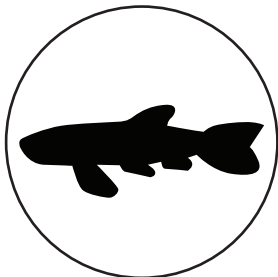


Cut along the dotted line and then connect the two pieces to make your very own American chestnut tree.



Species Match!

Draw a line to connect each species' silhouette with its name.



Milksnake

American
badger

Monarch
butterfly

Little brown
bat

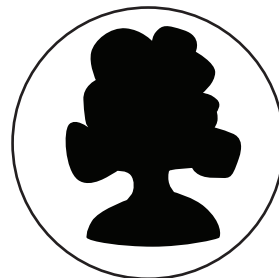
Fowler's
toad

Redside
dace

Bobolink

Snapping
turtle

American
chestnut



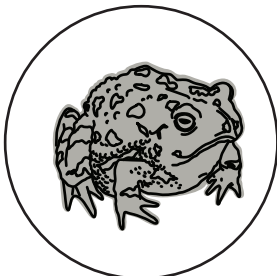
**Could your farm be home to any of these species?
Draw the habitats that species at risk could find on
your farm.**

Habitat Match!

Draw a line to connect each species with their habitat.
Could some species be found in more than one habitat?



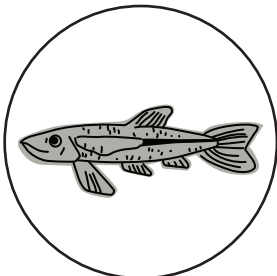
Monarch butterfly



Fowler's toad



Bobolink



Redside dace



American chestnut

Meadows

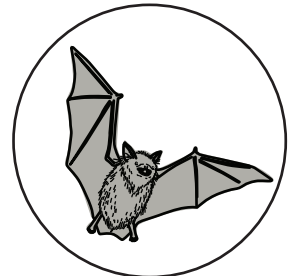
**Wetlands
and ponds**

**Beaches and
lake shores**

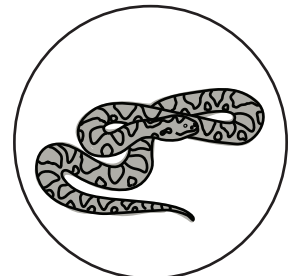
Forests

Streams

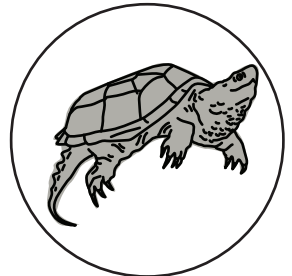
Barns



Little brown bat



Milksnake



Snapping turtle



American badger

**Which species do you like best?
Draw your favourite species from Ontario.**

_____ | _____

Species At Risk Champion Certificate

_____ | _____

First Name

Last Name

knows what's happening with Ontario's
species at risk, and is going to do their
part to spread the word and to make
more species feel at home on their farm.



Species Spotter:

American badger

Seen At: _____

On Date: _____



*1

Fowler's toad

Seen At: _____

On Date: _____



*4

Milksnake

Seen At: _____

On Date: _____



*2

Bobolink

Seen At: _____

On Date: _____



*5

Little brown bat

Seen At: _____

On Date: _____



Monarch butterfly

Seen At: _____

On Date: _____



*6

Snapping turtle

Seen At: _____

On Date: _____



American chestnut

Seen At: _____

On Date: _____



Redside dace

Seen At: _____

On Date: _____

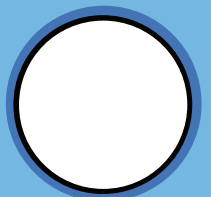


*3

Species: _____

Seen At: _____

On Date: _____



*1. Photo by Richard Klafki
*2. Photo by Ryan M. Bolton
*3. Photo by Brian Zimmerman, NANFA.org
*4. Photo by Robert McCaw
*5. Photo by Kelly Colgan Azar
*6. Photo by Robert McCaw

Discover Species at Risk on Your Farm

Did you know that Ontario has over 200 species at risk? Species at risk are plants and animals that are in danger because they are losing where they live or what they eat—they are losing their habitat. Fortunately, farms across Ontario make excellent homes for many plants and animals, including some of these threatened species. As stewards (or caretakers) of the land, young farmers like yourself can help these species by improving their habitat on your farm. Look inside to discover more about species at risk and where you can find them on your farm!

This book was developed by the Ontario Soil and Crop Improvement Association (March 2015), with illustrations by Laura Smith and Gram Schmalz. Digital versions can be found at www.ontariosoilcrop.org.

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