

# Seney National Wildlife Refuge Activity Journal

An interactive children's guide to the plants and animals of the Refuge.



**Seney**  
National Wildlife Refuge



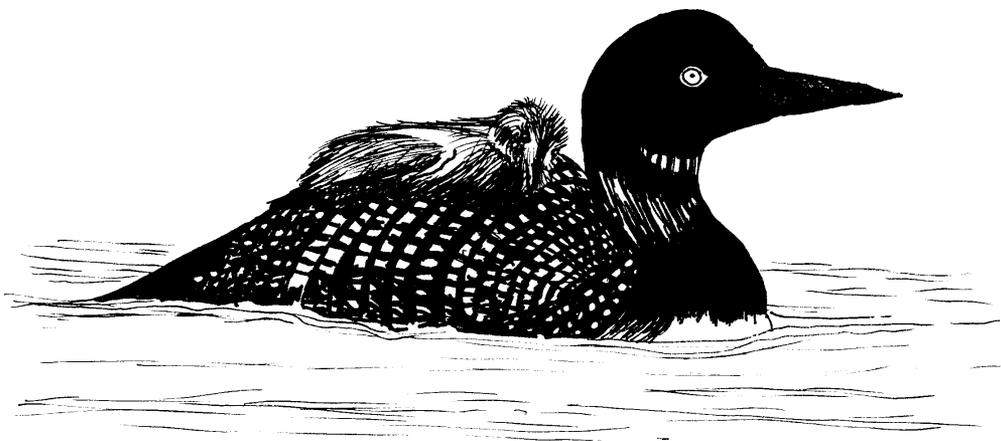
*Seney H. Straub ©*

# Tips for using the activity journal:

- ⇒ Before you leave the Visitor Center, consider borrowing a pair of binoculars.
- ⇒ Open the booklet to the wildlife observation page (center), find a pencil, and observe. When you have spotted something you find interesting, stop and make your observations.
- ⇒ Later, you can read, write, draw, color and enjoy the other pages.
- ⇒ Answers to questions can be found at the back of the booklet.
- ⇒ You can find more information about Seney NWR at [fws.gov/refuge/seney](http://fws.gov/refuge/seney).

Many thanks to Sara Giles, co-author and Visitor Services Manager, for her ideas and willingness to begin this project. Also thanks to Seney Natural History Association, the Seney National Wildlife Refuge Staff, and the Bookstore Committee for suggestions and editing.

I hope your visit, and this booklet, help you to love and appreciate this beautiful, amazing place reserved for nature, but open to us so we can enjoy and forever love this place. Lezley Strawb ~ Illustrator and co-author. Illustrations Lezley Strawb

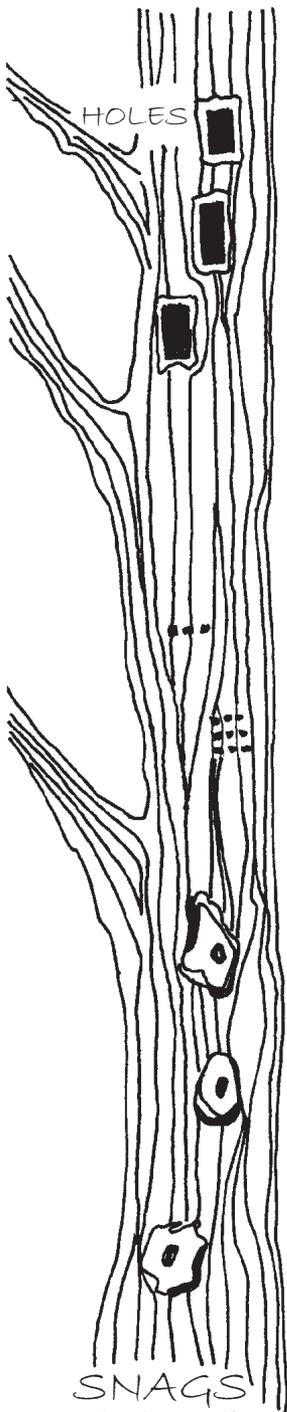


This book belongs to:

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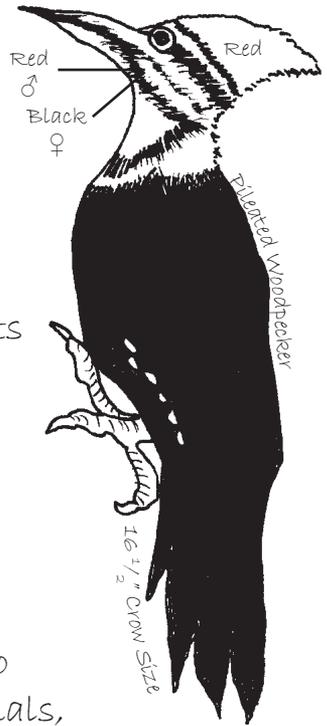
Place Refuge Stamps Here

# The Whacky Wild



**SNAGS**  
are dead standing trees which are important to woodpeckers and other wildlife.

Pileated woodpeckers make two types of holes. Oval shaped holes  are for nesting or roosting. Roosts have multiple openings for emergency exits; nests have only one. Deep  rectangular holes are made to forage for insects. Their abandoned holes are important to wildlife. They become homes to many kinds of animals, including flying squirrels, pine martens, ducks, and owls. Yellow-bellied sapsuckers drill  or  shaped holes, known as sap wells. Sap collects in the wells and attracts insects which get stuck. Both are food for the woodpecker. The sap wells also attract ruby-throated hummingbirds that depend on the sap, especially in the spring before flowers bloom.



# World of Seney's Woodpeckers

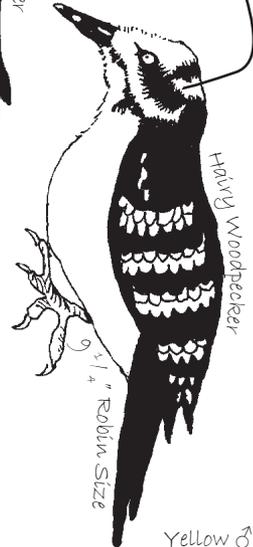
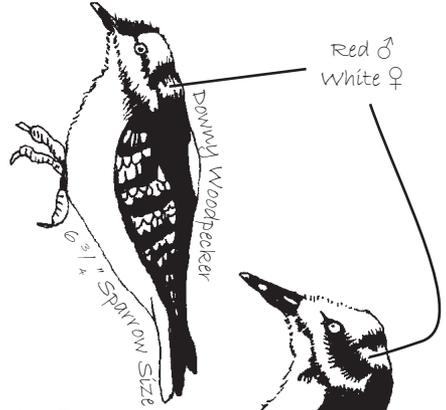
Downy and hairy woodpeckers look a lot alike but the hairy is bigger and has a longer beak. Both birds make round

● holes in trees but the downy makes small holes (1/4" to 3/8") while the hairy makes small to larger holes (3/16" to 3/4"). The downy is the smallest woodpecker at Seney NWR.

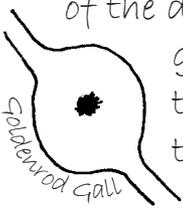
Because it's smaller and lighter than other woodpeckers, it can search for food where other woodpeckers cannot - such as on or in stems of plants.

To find signs of the downy, look for holes pecked in goldenrod galls and on birch trees for "trap doors"  where they have pried up the bark looking for insects hiding underneath.

Black-backed woodpeckers love burned trees, especially jack pine. Look for them in an area that has seen recent fire. The woodpeckers scrape the bark off the trees or drill ● round holes looking for the insects that feed on the dead or dying burned trees. This woodpecker is hard to find. Many people visit the Refuge to try to see one. If you see one, you are very lucky!



Yellow ♂  
Black ♀

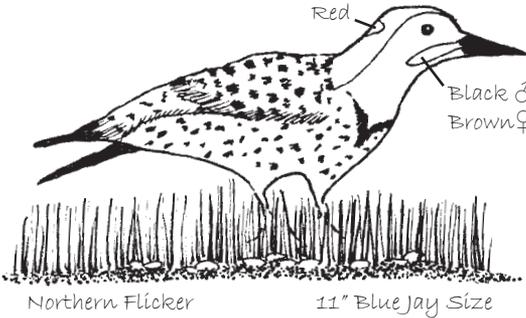


# ORE

## Σ WONDERFUL WOODPECKER FACTS

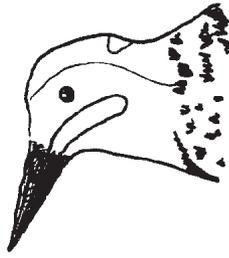
Northern flickers are more a ground-pecker than a woodpecker. While they can climb trees and hammer wood like other woodpeckers, they prefer to look for their food on the ground. They are often seen on roadsides searching

for ants and other insects. Watch for them as you drive. They show off a white rump patch as they fly away.



## CAN YOU MATCH THE WOODPECKER TO ITS TONGUE?

- A.  — Yellow-bellied Sapsucker
- Long, sticky and barbed to spear and extract insects from crevasses.
- B.  — Hairy Woodpecker
- Long, sticky and blunt, good for probing the ground.
- C.  — Northern Flicker
- Long, brush tipped, good for lapping sap.
- Downy Woodpecker
- Pileated Woodpecker



Journal Page: Draw or write about your observations of woodpeckers, their holes or other signs of woodpeckers you found.



poison.

17 Pupa of a butterfly.

19 A mammal that frequents the water, is inquisitive, playful, and can often be found in groups. Sometimes, it is mistaken for a beaver or a muskrat.

20 The type of plant a monarch caterpillar munches.

22 Moth that is mistaken for a hummingbird.

23 Smallest woodpecker at Seney.

24 Monarch mimic.

25 Rodent often seen swimming in Seney's pools, its tail making an S shape as it moves through the water.

#### DOWN

1 A place reserved for wildlife.

2 A home to many organisms - downed tree trunk or large branch.

3 A word that means a specific type of animal.

4 Second stage of a butterfly's existence.

5 To watch something.

9 Place where a bird or bat sleeps.

11 A word meaning wild animals.

12 A secondary user of a pileated woodpecker nest or roosting hole \_\_\_\_\_ squirrel.

14 Largest woodpecker at Seney.

18 A species that has a disproportionately large effect on its environment is a \_\_\_\_\_

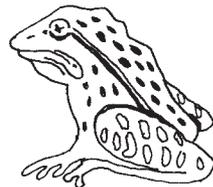
species.

20 A butterfly that migrates all the way to Mexico for the winter.

21 Highly valued by wildlife - dead standing tree.

22 A small, voracious insectivore with a pointy nose.

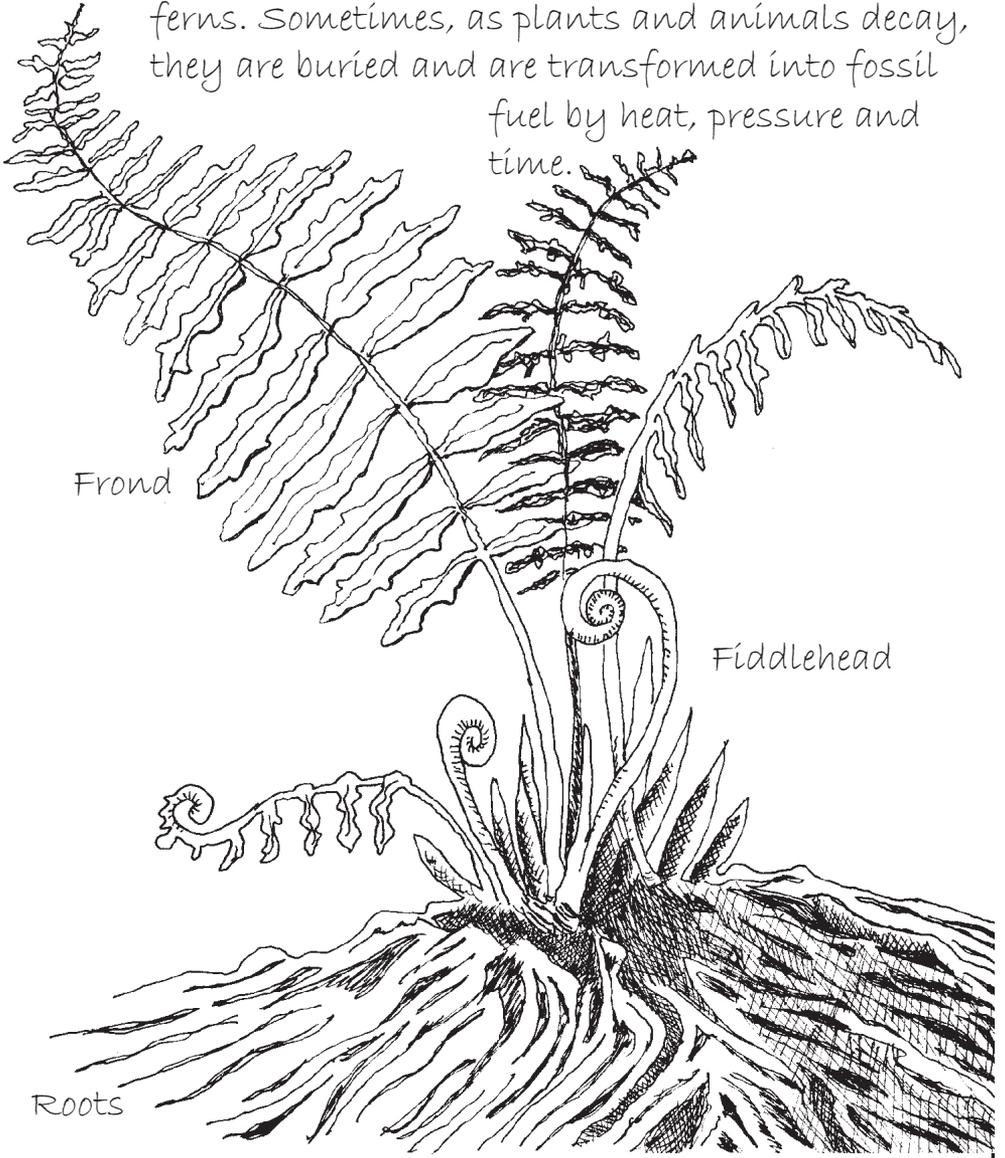
23 Large, hoofed animal.

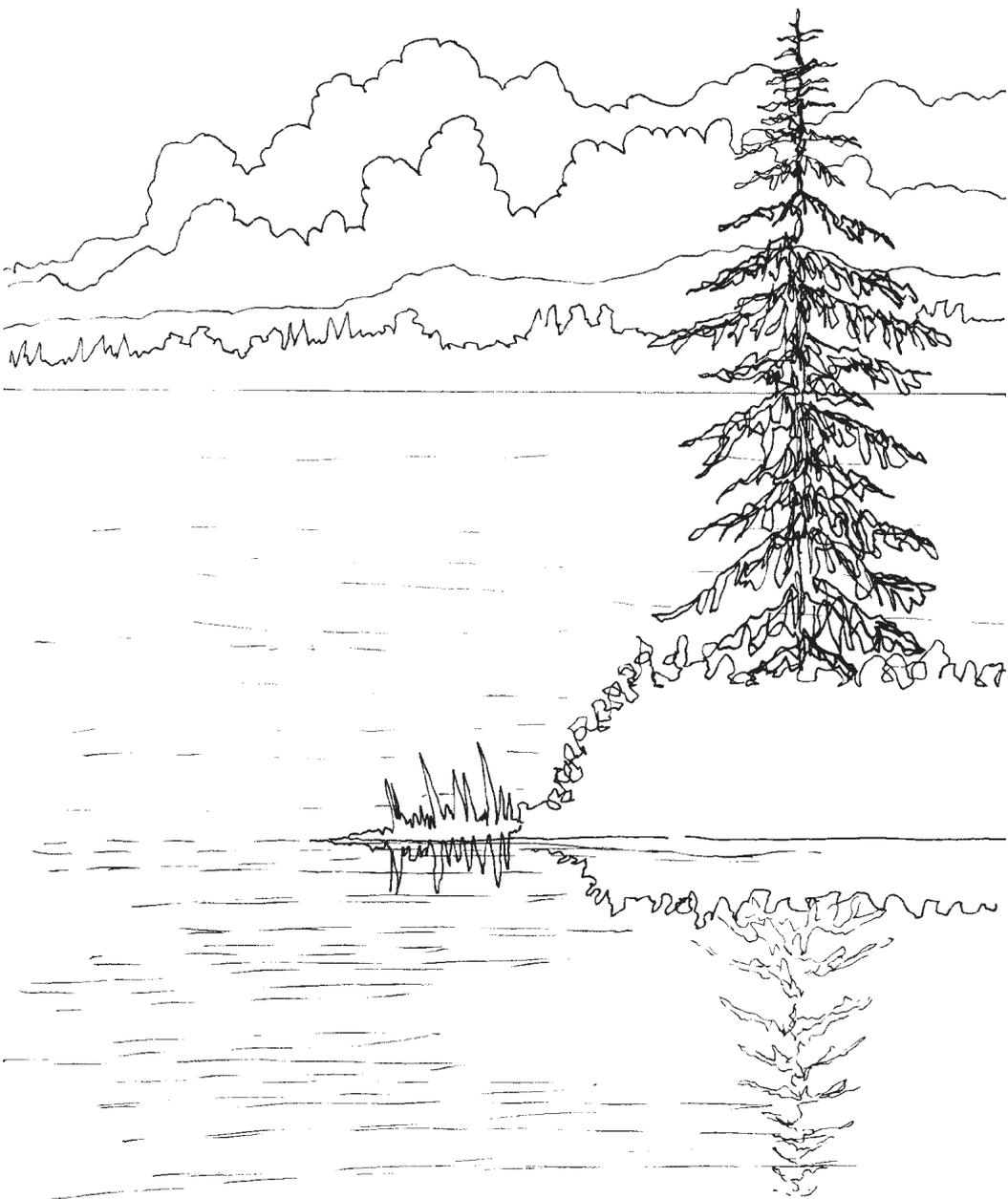


Stumped? Read the booklet to find clues.

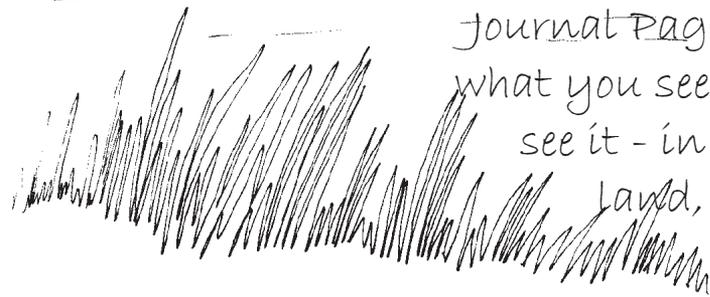
# Fun Fern Facts

- ⇒ Ferns do not have seeds. They reproduce by producing spores.
- ⇒ Many ferns grow where other plants can't because it is too wet, too shady, there isn't enough dirt, or the dirt is too acidic.
- ⇒ Fossil fuels, like coal and gas, are mostly old ferns. Sometimes, as plants and animals decay, they are buried and are transformed into fossil fuel by heat, pressure and time.





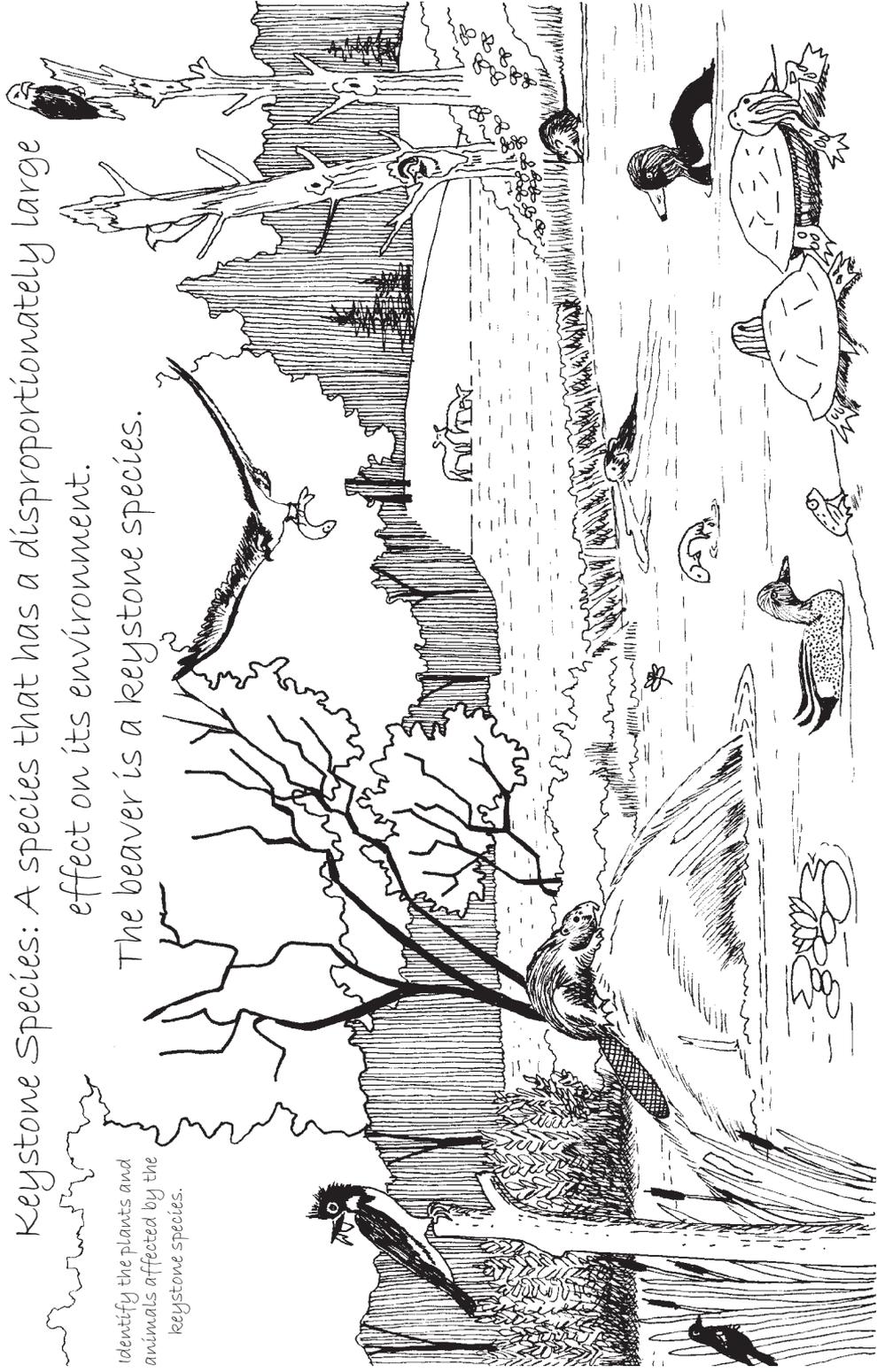
Journal Page: Draw or write  
what you see and where you  
see it - in the sky, on the  
land, or in the water.



**Keystone Species:** A species that has a disproportionately large effect on its environment.

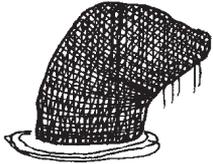
Identify the plants and animals affected by the keystone species.

The beaver is a keystone species.





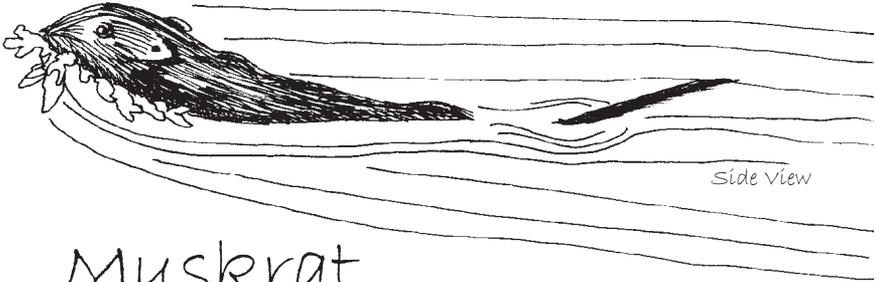
Otter Profile



Otter



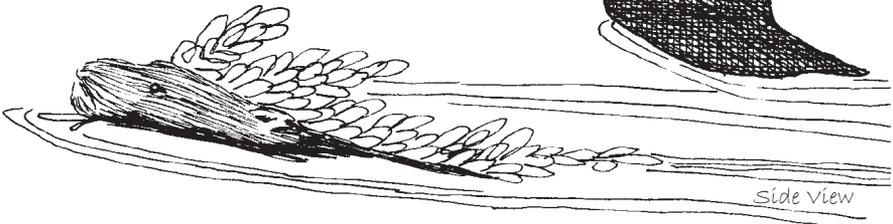
Muskrat Profile



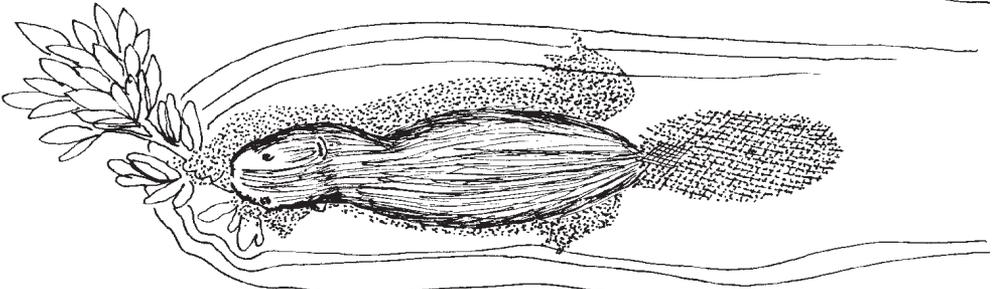
Side View

Muskrat

Beaver Profile



Side View



Overhead View

Beaver



Muskrat



Journal Page



Beaver



# BIRDS OF SENEY WORD SEARCH

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

check your answers at the back of the booklet.

# Birds of Seney

## WORD SEARCH LIST

AMERICAN BITTERN

BALD EAGLE

BARRED OWL

BELTED KINGFISHER

BLUEJAY

BOBOLINK

CANADA GOOSE

CASPIAN TERN

CEDAR WAXWING

CHICKADEE

CROW

DOWNY WOODPECKER

GRAY CATBIRD

GREAT BLUE HERON

GREBE

GROSBEAK

HAWK

HOODED MERGANSER

KILLDEER

KINGBIRD

LOON

MALLARD

NORTHERN FLICKER

NUTHATCH

OSPREY

OVENBIRD

PHOEBE

RING-BILLED GULL

RING-NECKED DUCK

ROBIN

RUBY-THROATED HUMMINGBIRD

RUFFED GROUSE

SANDHILL CRANE

SANDPIPER

SHARP-SHINNED HAWK

SNIFE

SORA

SPARROW

TRUMPETER SWAN

TURKEY VULTURE

VEERY

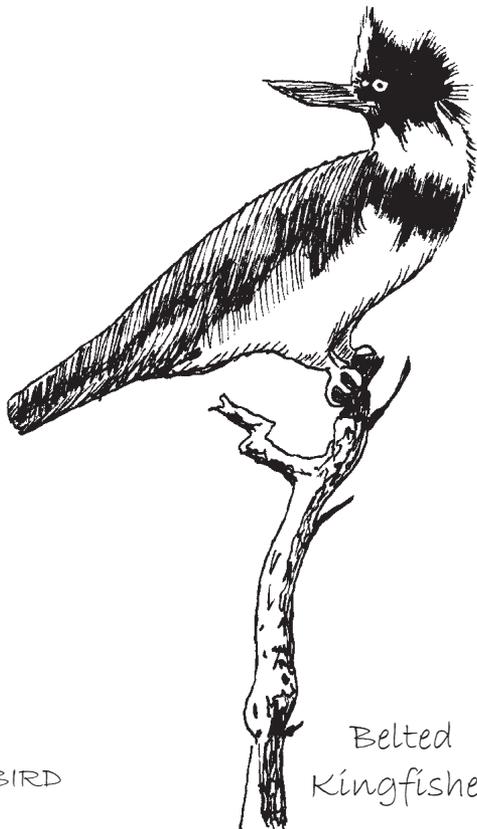
VIRO

WHIP-POOR-WILL

WOOD DUCK

WREN

YELLOW WARBLER



Belted  
Kingfisher

Find the hidden message. Write down the unused letters.

-----  
-----!

# Mysterious Monarchs



Am I a monarch or an impostor?

## Did you know?

- Milkweeds are the host plant of the monarch butterfly. They are the only kind of plant a monarch can eat as a caterpillar. Without them, the caterpillar will die.
- The milkweed plants' stems, leaves and flowers contain a poisonous sap monarchs can tolerate. When monarch butterflies caterpillars eat the plants, the toxin, which does not make the butterfly sick, stays in their bodies for their entire lives making them poisonous.

- Because monarchs are poisonous - most, but not all, predators will get sick after eating a monarch and will not repeat the experience. Some predators will teach their offspring that monarchs are not good to eat, while other predators will have to learn on their own. Have you ever eaten something that made you sick? Would you eat it again?
- The viceroy is a monarch impostor. Scientists think they look like monarchs so that predators will not want to eat them, but they are not poisonous.
- In recent years, the monarch population has been in decline. People are taking over their habitat and changing it. Monarchs are having trouble finding their host plant - milkweeds. Think about all the land that is taken over by cities, towns, roads, and farms. These things are not necessarily bad, but we need to remember to leave homes for animals too!
- How can you help? Plant milkweed and nectar plants in your yard!



To identify the monarch impostor look for a black band on its hind wing.

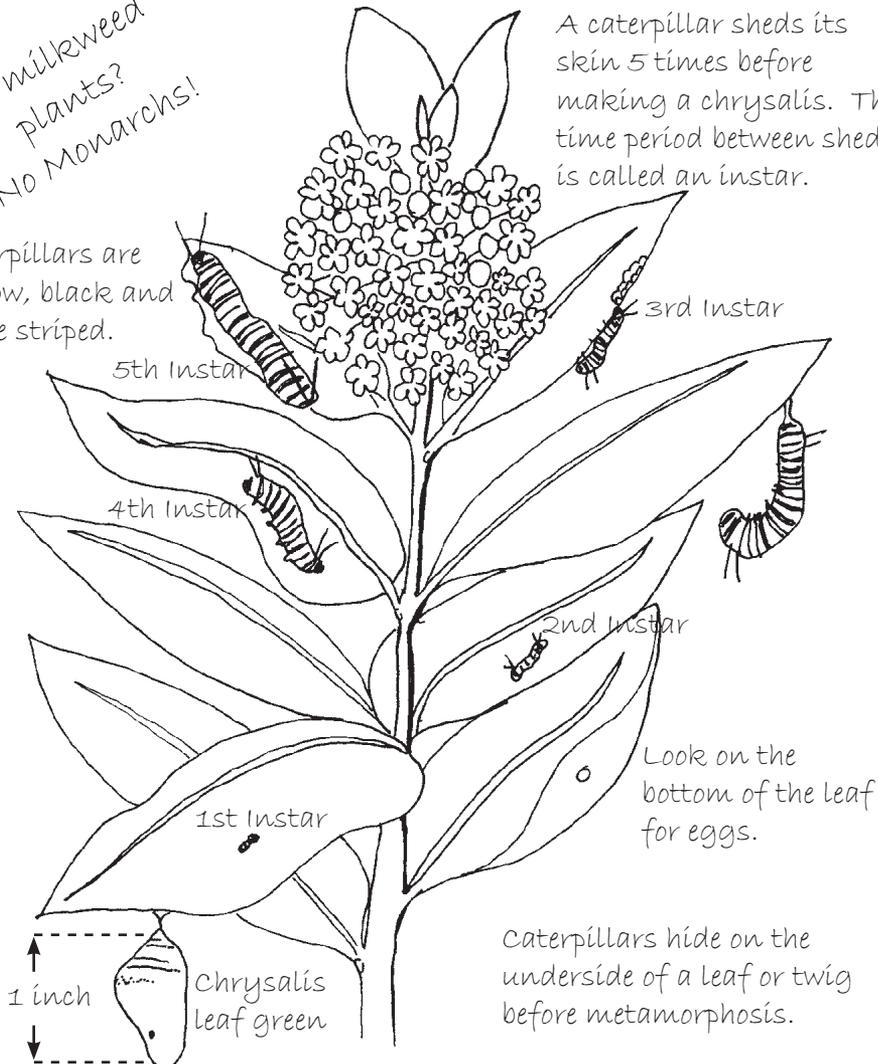
# Milkweed Plant

Can you find the Refuge milkweed patches? Observe a patch. Can you find any monarch eggs, caterpillars or chrysalises?

No milkweed plants?  
No Monarchs!

Caterpillars are yellow, black and white striped.

A caterpillar sheds its skin 5 times before making a chrysalis. The time period between sheds is called an instar.



Look on the bottom of the leaf for eggs.

Caterpillars hide on the underside of a leaf or twig before metamorphosis.

☞ Seney has two types of milkweeds: swamp and common. The common milkweed has dusty, rose-colored flowers and wide, light green leaves. The swamp milkweed flowers are dark purple and it has narrow, dark green leaves.

☞ Mature plants are 3 to 4 feet tall.

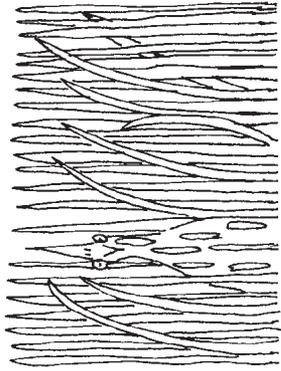




# Hidden Wildlife

Can you find 34?



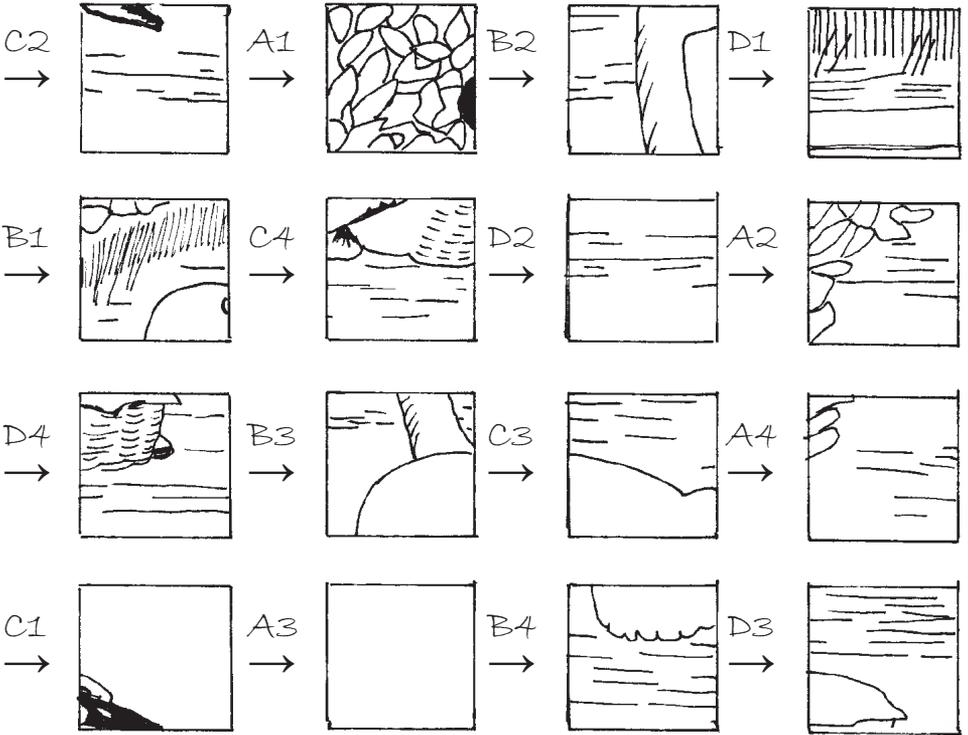


American Bittern

Journal Page: What animal did you almost miss seeing because it was camouflaged? Draw or write about it.

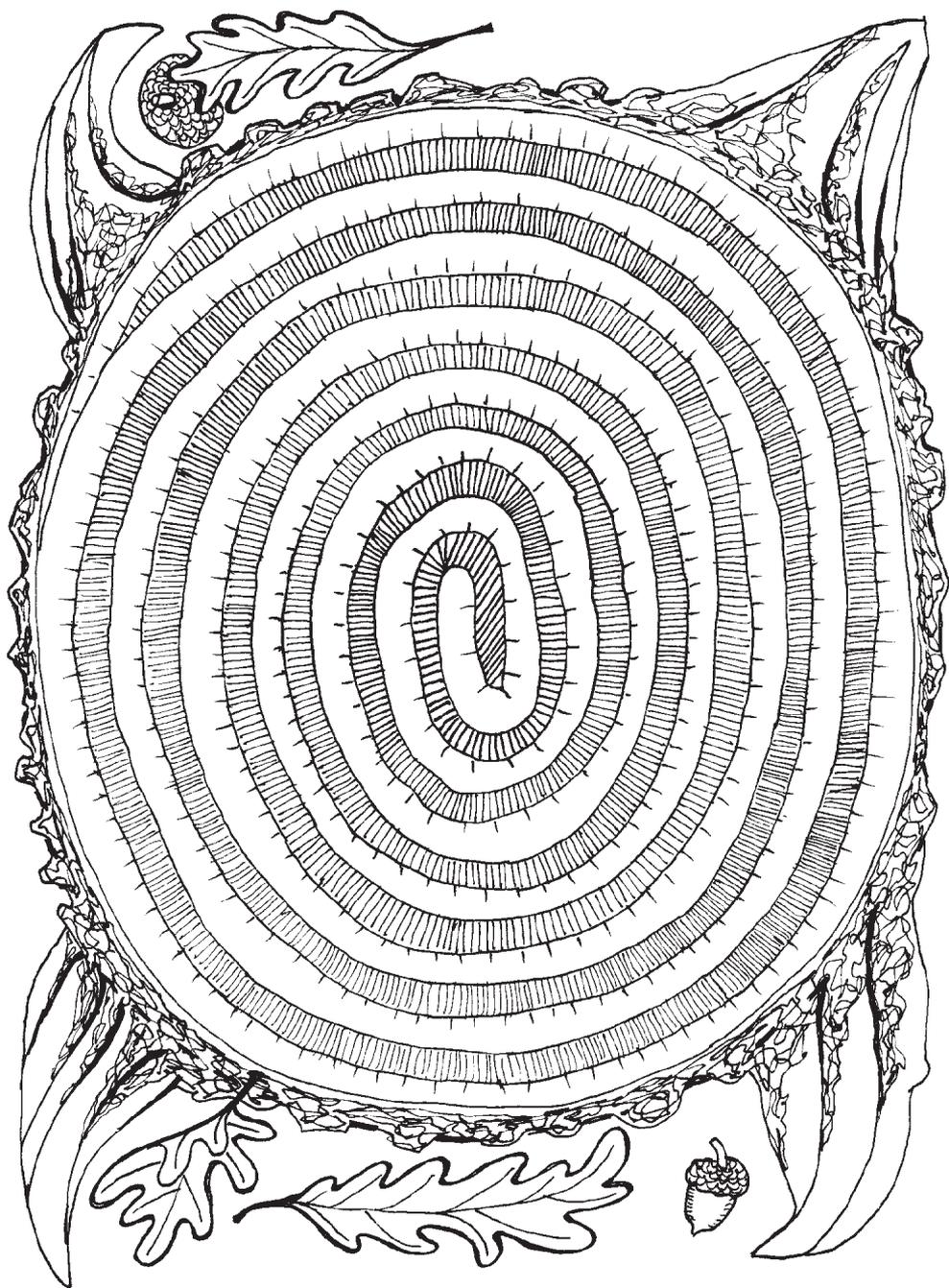


Redraw each square into the matching square below to unscramble the drawing.



	A	B	C	D
1				
2				
3				
4				

What did you draw? \_\_\_\_\_



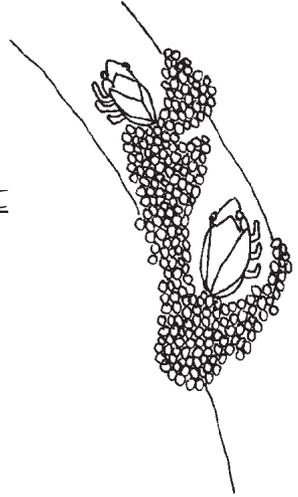
Journal in the rings of a tree stump. Write about one thing you saw at Seney, that you plan to always remember. Start in the center.

# Do you haiku?

Haiku is a form of poetry. It is an un-rhymed, syllabic form of writing adapted from the Japanese. It is written with 3 lines; the first line has 5 syllables, the second line has 7 syllables, and the third line has 5 syllables. Draw pictures to accompany your drawing in the margins.

## EXAMPLE

Lit-tle spit-tle-bug  
blow-ing bub-bles with your butt  
Bub-bles help hide you



Your haiku:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

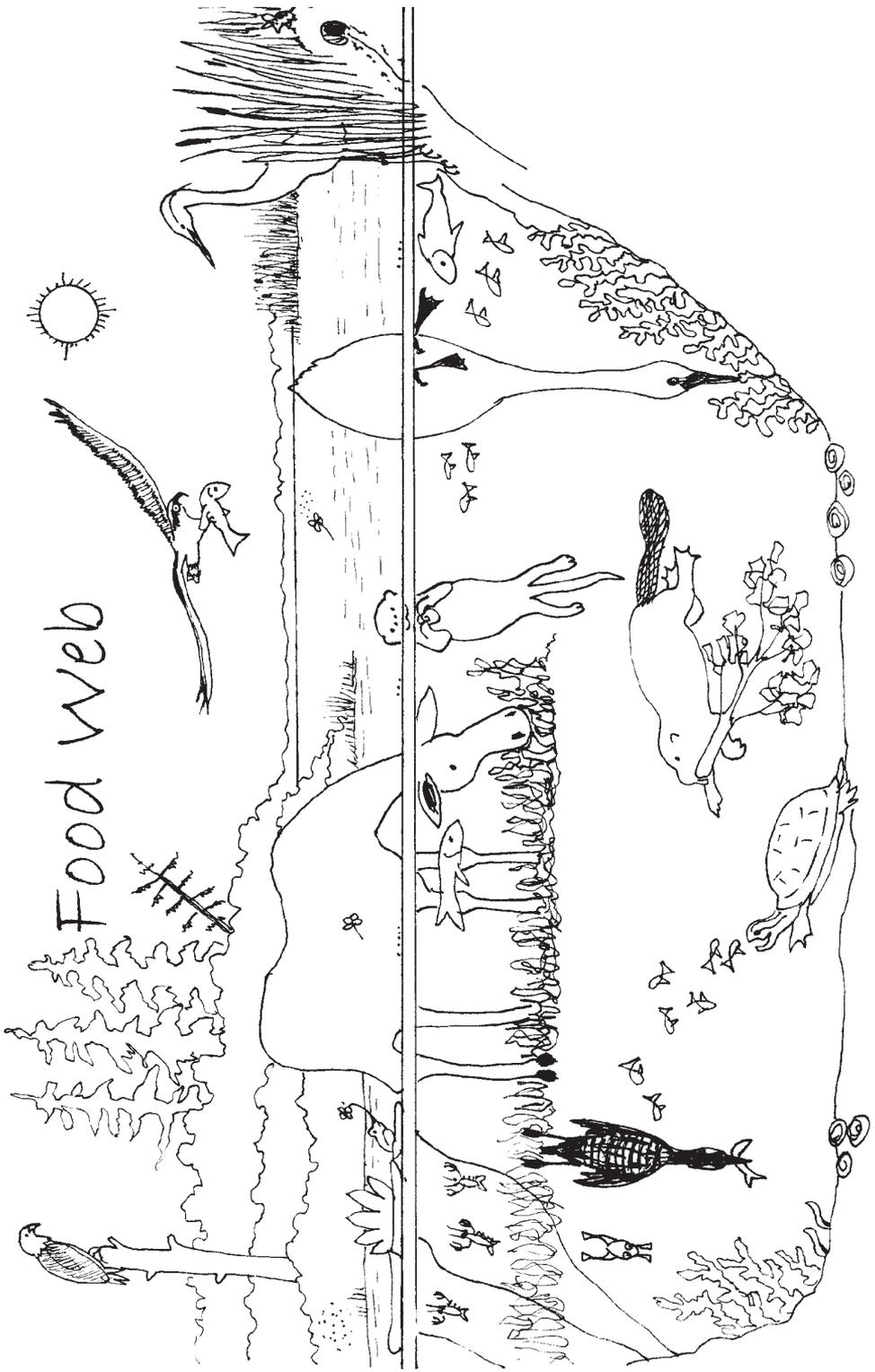
Your haiku:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Food Web



Look at the picture above. Write down who eats what.

Identify the carnivores:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Identify the herbivores:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Identify the omnivores:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_

Producers are organisms that make their own energy. Examples of producers include trees, grass, flowers, and other plants.

Identify the producers:

Need help? Here are the names of the animals in the picture.

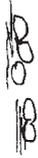
- |            |            |          |
|------------|------------|----------|
| Bald Eagle | Otter      | Beaver   |
| Crayfish   | Osprey     | Grass    |
| Frog       | Dragonfly  | Cattails |
| Loon       | Mosquitoes | Trees    |
| Clams      | Aquatic    | Shrubs   |
| Fish       | Plants     |          |
| Trumpeter  | Water Lily |          |
| Swan       | Mouse      |          |
| Great Blue | Clam       |          |
| Heron      | Turtle     |          |



Tracke



Scat



Pellets



Hole in the  
ground

Journal Page: Tracks, fur, feathers, scat, pellets (regurgitated balls of fur and bone), midden heaps (scraps from a meal), holes in the ground or nests are all signs of animal activity. Draw or write about what you found. What made it?



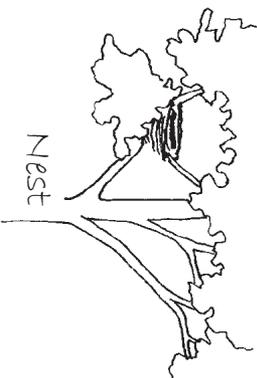
Fur



Feather



Midden Heap



Nest



MUSKRAT

# Seney

Can You  
Guess?

1. I can live to be over 400 years old. What am I?

2. I am the smallest bird on the Refuge. What am I?

3. I am the largest mammal on the Refuge. What am I?

4. I am an excellent swimmer, expert tunnel digger and have a long, skinny, hairless tail that helps give me my name. What am I?

5. I am very busy. I may dig canals to make transporting big trees easier after I cut them down. What am I? (P.S. I have webbed back feet.)

6. I have been mistaken for a hummingbird but I am an insect. What am I?

7. I am the tallest bird on the Refuge. What am I?

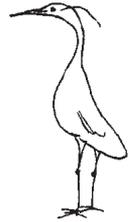
8. Members of my family are venomous, our bite may paralyze insects, earthworms and other small animals. What am I?



S  
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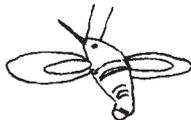


RUBY-THROATED  
HUMMINGBIRD

Need help? Look at the pictures...



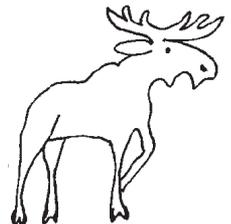
SHREW



SPHINX MOTH

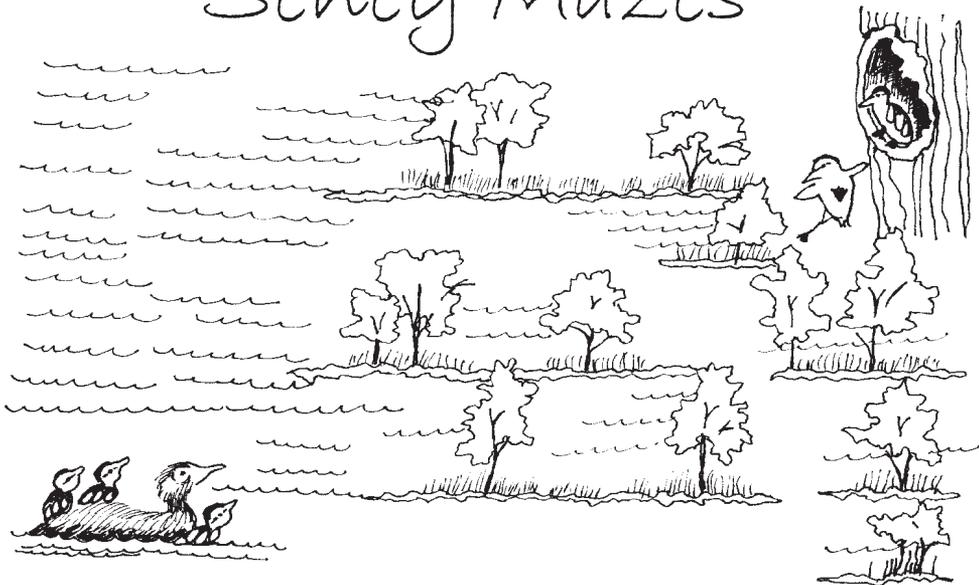


BEAVER

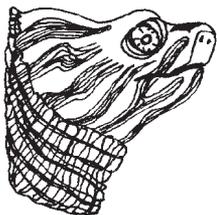
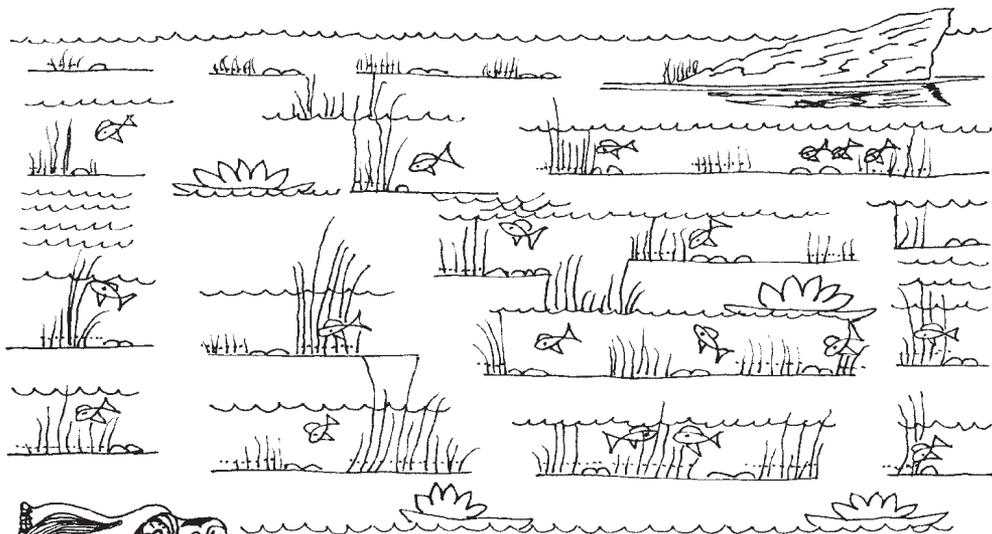


MOOSE

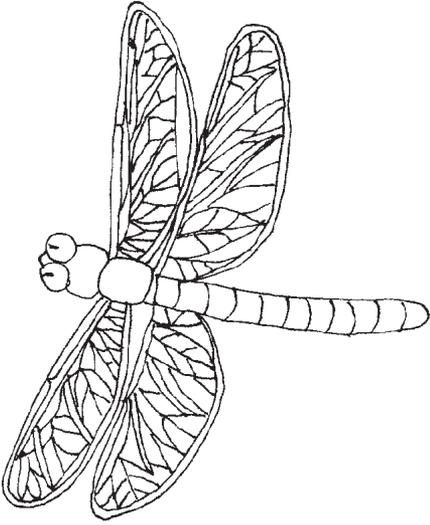
# Seney Mazes



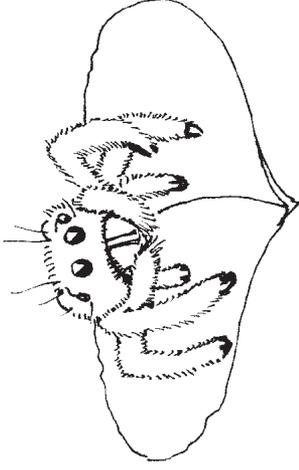
Can you help the wood duck duckling cross the wetlands through the pond to its family?



Can you help the painted turtle to find a sunny log to warm itself?

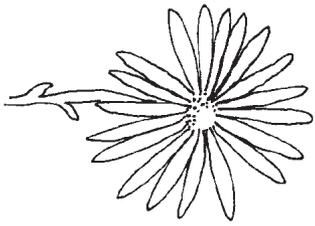


Dragonfly

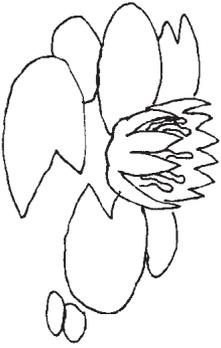


Jumping Spider

Journal Page: Insects have three pairs of legs and the body is segmented into three parts (head, thorax and abdomen). Most insects have wings. Spiders have four pairs of legs and the body is segmented into two parts (head and abdomen). Spiders spin silk. Draw or write about the insects and spiders you see.

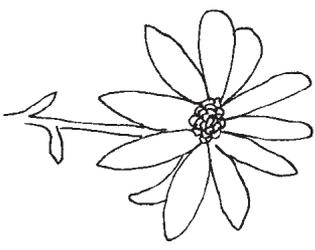


Aster

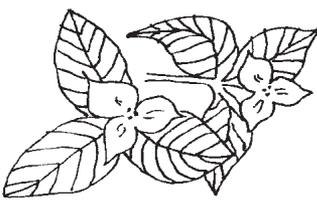


Water Lily

Journal Page: Draw or write about the different species of wildflowers you see. What color are the flowers? Where did you see them? In the forest, wetland or open area? Please do not pick the flowers - take only memories, leave only footprints.

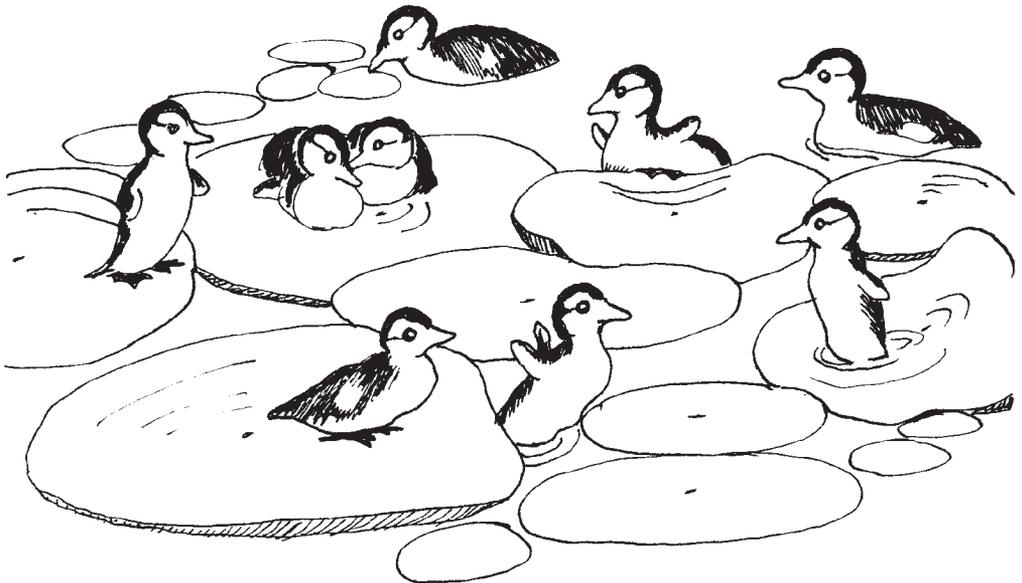
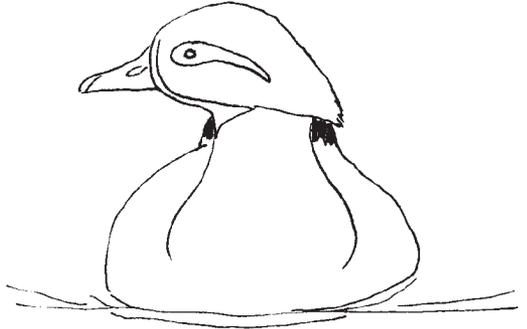
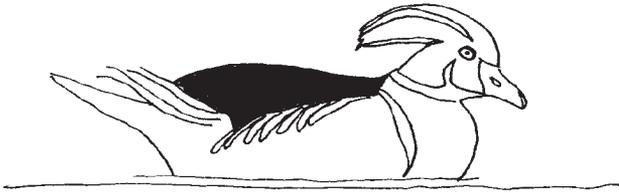


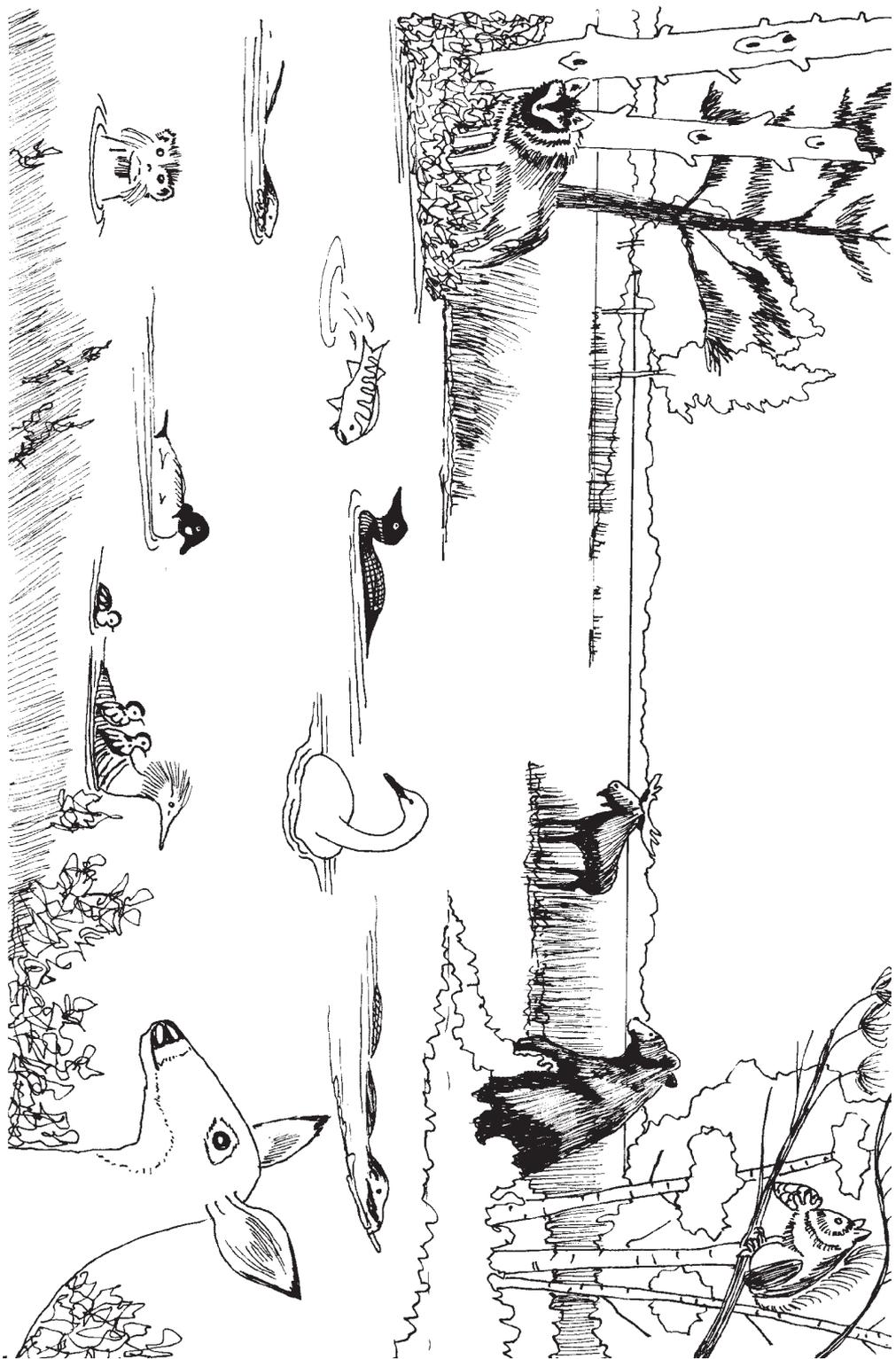
Black-eyed  
Susan



Trillium

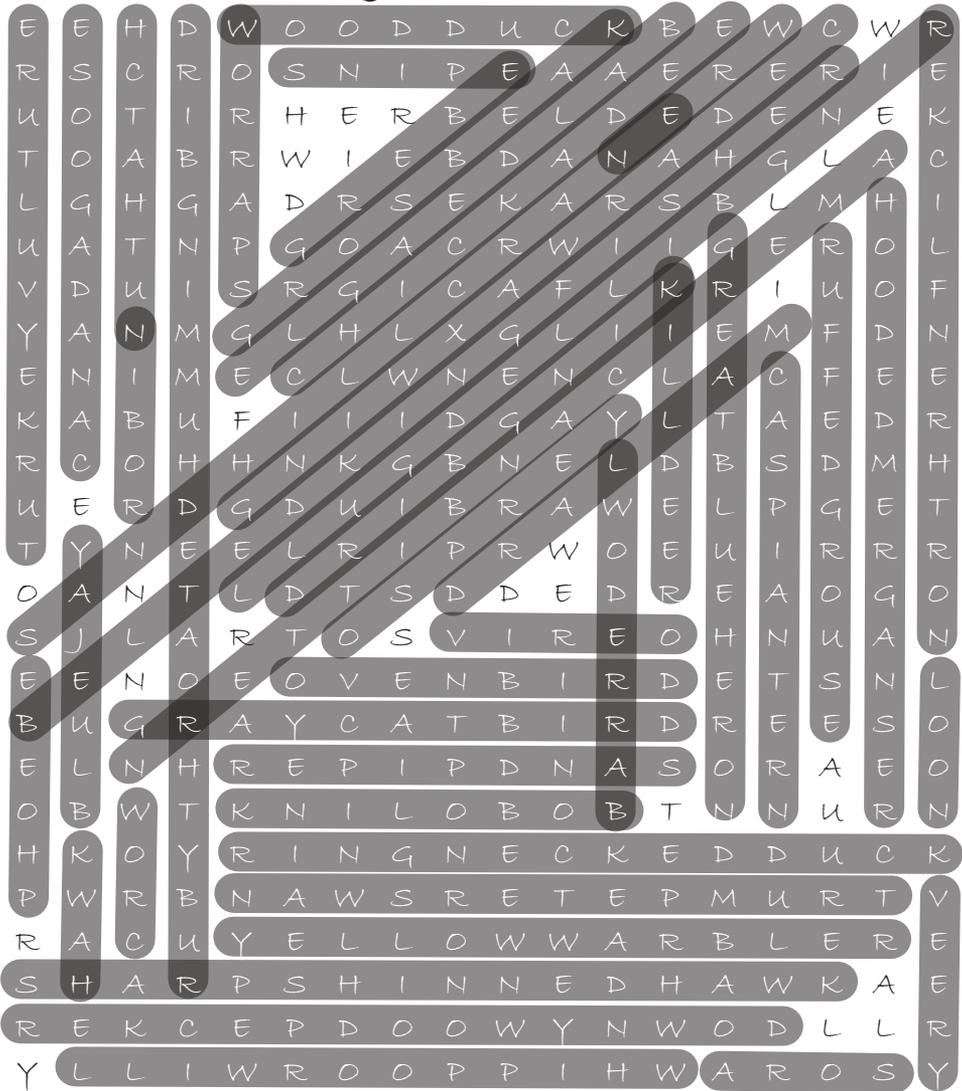
Color the wood ducks.







# Birds of Seney Word Search Answers

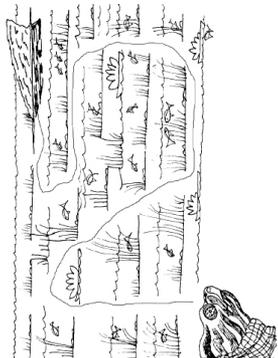
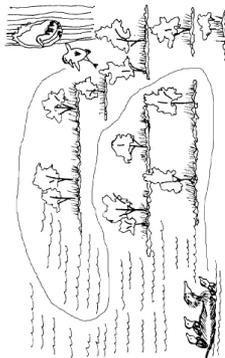


Hidden Message: Where wildlife  
wonders naturally!

## Seney Quiz

- White Pine
- Ruby-throated Hummingbird
- Moose
- Muskrat
- Beaver
- Sphinx Moth
- Sandhill Crane
- Shrew

MAZES



# Hidden Wildlife

- Brown Creepers (2)
- Otter (2)
- Ducklings (2)
- Dragonfly
- Trumpeter
- Great Blue
- Swans (4)
- Heron
- Bat
- American
- Snowy Owl
- Bittern
- Great Horned
- Northern Pike
- Owl (2)
- Flying
- Squirrel
- Moose
- Red Squirrel
- Warblers (2)
- Sandhill
- Cranes (2)
- White-tailed
- Deer (2)
- Common Loon
- Ring-necked
- Ducks ♂ and
- ♀ (2)
- Painted Turtles

# Food Web

Identify the carnivores:

1. Bald Eagle
2. Loon
3. Frog
4. Osprey
5. Otter
6. Great Blue Heron
7. Dragonfly
8. Fish

Identify the omnivores:

1. Crayfish
2. Mouse
3. Fish
4. Clam
5. Turtle

Identify the herbivores:

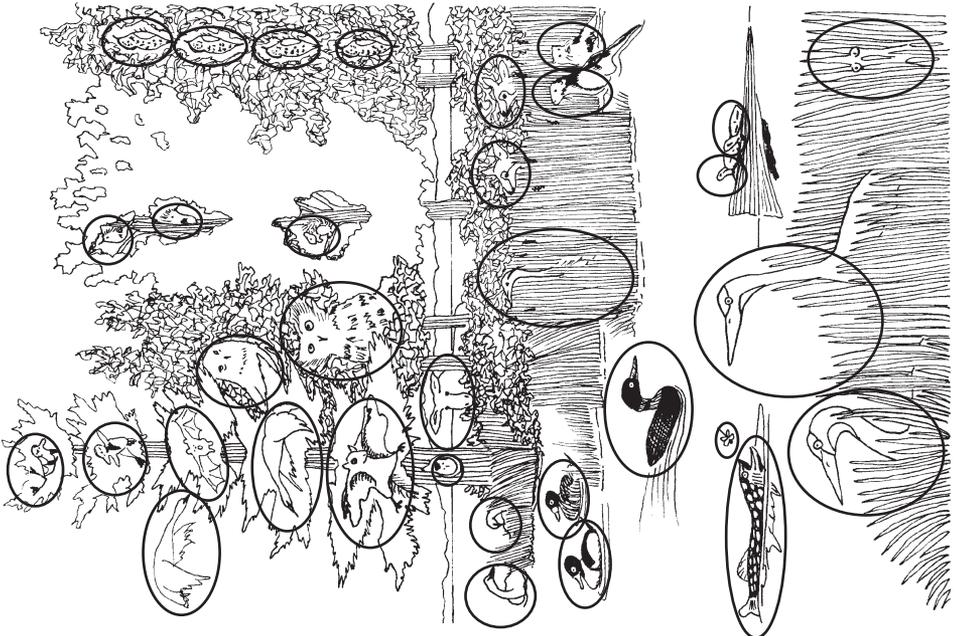
1. Mosquitoes
2. Moose
3. Trumpeter

Swan

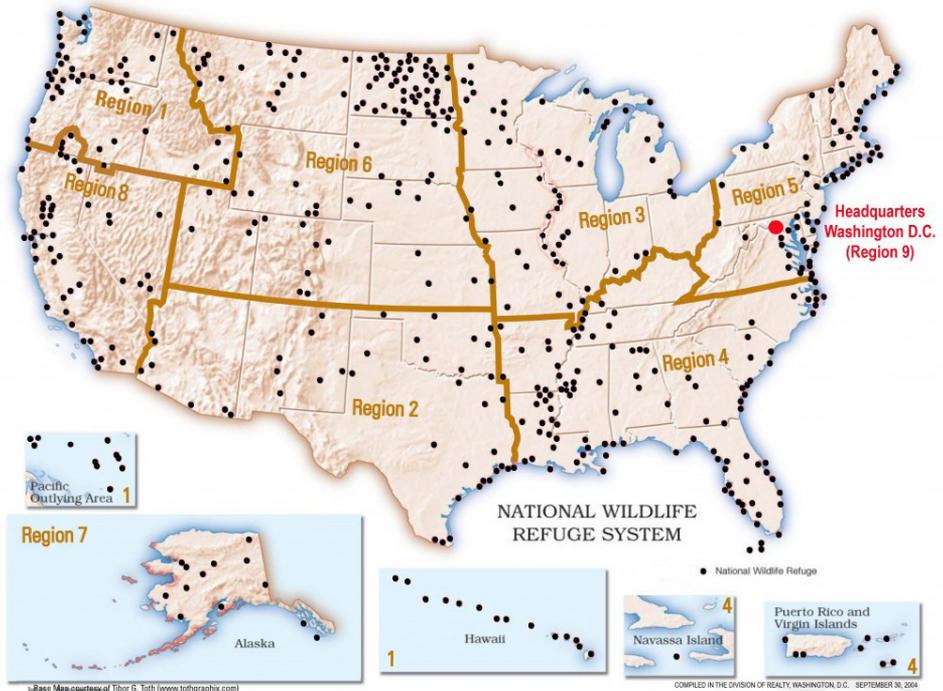
4. Beaver

Identify the producers:

1. Grass
2. Cattails
3. Trees
4. Shrubs
5. Water Lily
6. Aquatic Plants



# Refuge System Facts



- ↪ The National Wildlife Refuge System is over 100 years old.
- ↪ There are more than 560 National Wildlife Refuges in all 50 states and territories.
- ↪ Refuge lands cover almost 150 million acres. If we put all the land together, it would take up almost as much space as Texas, the second largest state.
- ↪ Refuges provide homes for more than 700 species of birds, 220 species of mammals, 250 species of reptiles and amphibians, and more than 1,000 species of fish!
- ↪ More than 380 threatened or endangered species are protected on National Wildlife Refuges.
- ↪ Seney National Wildlife Refuge is the 8th largest refuge east of the Mississippi River