### **Saco Bay Trails**

# The Great Outdoors ACtiVity BOOK

Fun and adventure on Maine's trails



## Activity Book

This trail guide is designed for children 5 through 9 accompanied by adults. Activities can be done on the trail or taken back home to complete there.

Most of the trails are designed for easy walking and cover 1–3 miles. Some (but not all) have benches or other seats. You can also rest on tree stumps along the trail.

Beware of poison oak and ivy. They can cause a rash. Poison ivy leaves change color from red to green to yellow or red and fall to the ground in the winter. When in doubt: Leaves of three—Let them be.



Ticks live in the woods. Wear long sleeves, long pants tucked into socks, and shoes when hiking there. It takes about 18 hours for a tick to spread Lyme disease, so be sure to check for ticks and bites soon after your walk.

Remember not to take anything from trails without permission. Please take all trash and dog waste with you. Take only memories—leave only footprints.

Please do not feed or chase the wildlife. Observe them from a distance.

Please stay on the trail at all times.

Bring drinking water with you. Some trails have public restrooms and some do not.

Follow the **5-2-1-0** program. Walking the trails is a great way to get the **1** hour of exercise a day needed for a healthy life. You can enjoy nature, be active, and learn about the world around you. Don't forget the rest of the **5-2-1-0** guidelines. Eat **5** or more fruits and vegetables a day, limit TV and computer time to **2** hours a day or less, and have **0** sugary drinks.

#### Credits

The Great Outdoors Activity Book by Janet Mangion and Susan Dudley Gold Published by Saco Bay Trails, Saco, ME © 2010 Saco Bay Trails. All rights reserved.

Graphics: Turtle, animal prints, tupelo leaves: Janet Mangion; poison ivy: U.S. Dept. of Agriculture; white pine: USDA Natural Resources Conservation Service; boy: © Digital Stock, Corbis Corp.; red fox photo by arudhio at http://animalphotos.info/a/2007/12/26/japan-red-fox-eyes-cameraman; moose by vigor at http://animalphotos. info/a/2008/01/05/bull-moose-with-impressive-rack-stands-knee-deep-in-muddy-water; peek-a-boo graphic: Susan Dudley Gold; all others © Nova Development Corp.

Plant experiment from Science Project Ideas at http://www.scienceprojectideas.co.uk/do-plants-breathe.html Maze courtesy of John Lauro at http://hereandabove.com

۰,

•

Design & Production: Custom Communications, Inc., 11 Wentworth Street, Biddeford, ME 04005 www.desktoppub.com

Printed in the United States of America. This booklet may be copied in part or in full only for educational and personal use. It may not be copied for commercial use. This booklet is available in pdf form at www.sacobaytrails.org.

For more information contact: Saco Bay Trails P.O. Box 720, Saco, ME 04072 info@sacobaytrails.org

follow the mouse tracks to the next activity

## What am I?

### ANIMAL A

- 1. I have reddish fur on my back and face and a white belly.
- 2. My tail is bushy with a white tip.
- 3. I eat insects and fruits, but I like small mammals and birds best. Farmers call me a chicken thief.
- 4. I am 20 to 30 inches long and my tail measures 14 to 16 inches.

Do you know what I am? Can you find my prints on the trail (see Mammals)?

### ANIMAL B

- 1. I look like a bandit!
- 2. I have a dark mask around my eyes and a bushy tail with rings.
- 3. I eat berries, bird eggs, insects, and crayfish. I look in garbage cans for treats.
- 4. My head and body measure 16 to 26 inches. My tail is 8 to 12 inches long.

### Do you know what I am? Do you see anything on the trail that I like to eat?

### ANIMAL C

- 1. I am a giant weighing 1,000 pounds or more and measuring 7½ to 10 feet long.
- 2. I stomp through the Maine woods in search of plants to eat.
- 3. Males have huge antlers and stand more than  $6\frac{1}{2}$  feet tall.
- 4. I have brown fur and am the Maine state animal.

Do you know what I am? How tall am I compared to you?

### ANIMAL D

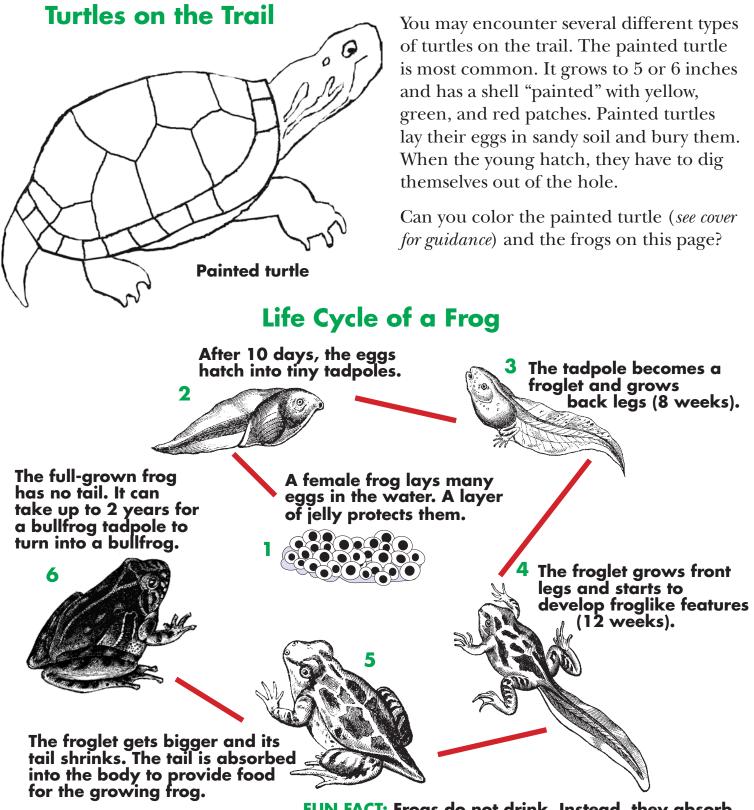
- 1. I slap my tail against the water to warn my friends of danger.
- 2. I cut down trees with my teeth and use the branches to build a dam.
- 3. My tail is 9 to 12 inches long. When I swim, I use it to steer.
- 4. I eat plants and parts of trees and shrubs.

Do you know what I am? Can you find trees I have chewed on?



A. I am a red fox. B. I am a raccoon. C. I am a moose. D. I am a beaver.

## Turtles and Frogs



FUN FACT: Frogs do not drink. Instead, they absorb water through their skin.

## Mammals

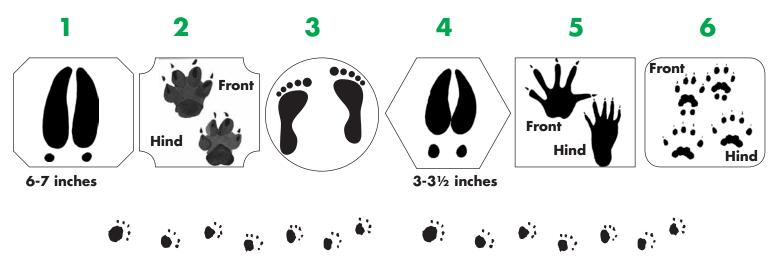
What do a girl, a boy, a moose, a porcupine, and a whale have in common? They are all mammals. Mammals are one of six main classes of animals. There are many different kinds of mammals, but they all have some of the same traits. Mammals are warm-blooded and have hair and backbones (spines). Mothers feed their babies milk and take care of them until they can manage on their own. Reptile babies, on the other hand, are on their own after they are born.

Almost all mammals grow their babies inside the mother's body. Only a few, like the duck-billed platypus, lay eggs to produce their young.

Fish and insects far outnumber mammals. There are about 4,000 kinds of mammals. There are 21,000 kinds of fish in the world and 800,000 kinds of insects.

### Identify the mammal and draw a line to its footprint





A-4 White-tailed Deer B-6 Cray Squirrel C-2 Red Fox Cub D-5 Raccoon E-1 Moose F-3 Human

## Changing Environments

Everything changes over time. So do the environments around us. Each environment has its own plant and animal life. A pond may contain water lilies, fish, turtles, beavers, and frogs. As the plants in the pond die, the rotten matter falls into the water.

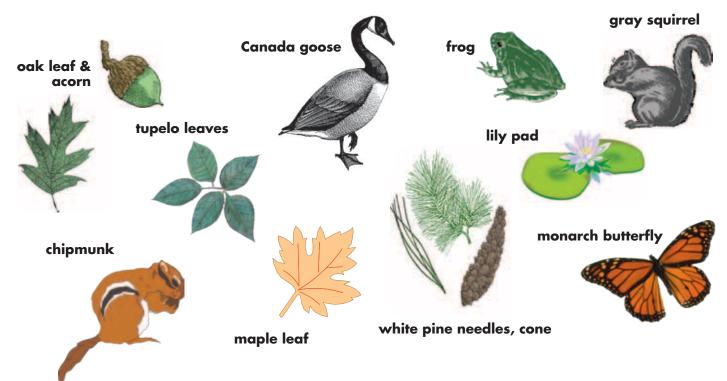
A wet, spongy bog is formed. Sphagnum mosses, blueberries, and cranberries grow here. Muskrat, otter, deer and moose come to graze on the bog's plants.

Eventually, the bog becomes a swamp, still wet but with enough soil to grow woody plants and trees. The tupelo is one of the trees that grow in a swamp. It reaches a height of 50 to 90 feet and has a diameter of 2 to 3 feet. Some tupelos are more than 100 years old.

The swamp plants die and create more soil. This turns into a field, where wild flowers and grasses grow. After many years bushes and aspen and birch trees sprout in the field. The meadow begins to fill with small pine trees.

Ferns cover the ground. Maple and oak trees take root. Big evergreen trees like the hemlock tower 100 feet up. These form a forest. Bald eagles, hawks, and woodpeckers make their home among the trees, along with moose, deer, squirrels, and red foxes.

### Circle all the things you see on your walk. Were they near a pond, a bog, a swamp, a field, or a forest?



## Counting game

Sit in a circle. The first person recites #1. The second person recites #2, and the first person recites #1. The third person recites #3, the second person recites #2, and the first person recites #1. And so on to #12.

ONE is for the one mate a Canada goose has during its life.

TWO is for the number of eggs the female hummingbird lays each spring.

THREE is for the three weeks it takes a baby raccoon to open its eyes.

FOUR is for the four front toes of a white-footed mouse.

FIVE is for the five needles per bunch on a white pine tree.

SIX is for the six main classes of animals: mammals, birds, fishes, reptiles, amphibians, and arthropods (invertebrates).

SEVEN is for the number of weeks it takes baby minks to be born.

EIGHT is for the number of weeks a mama red fox nurses her young.

NINE is for the nine pounds of food a white-tailed deer can eat in a day.

TEN is for the ten days it takes a frog's eggs to hatch.

ELEVEN is for the average number of years a painted turtle lives.

TWELVE is for the months a moose mother tends her calf before driving it away to make room for a new calf.

## Fun facts

Newborn fawns have no scent so enemies cannot smell them.

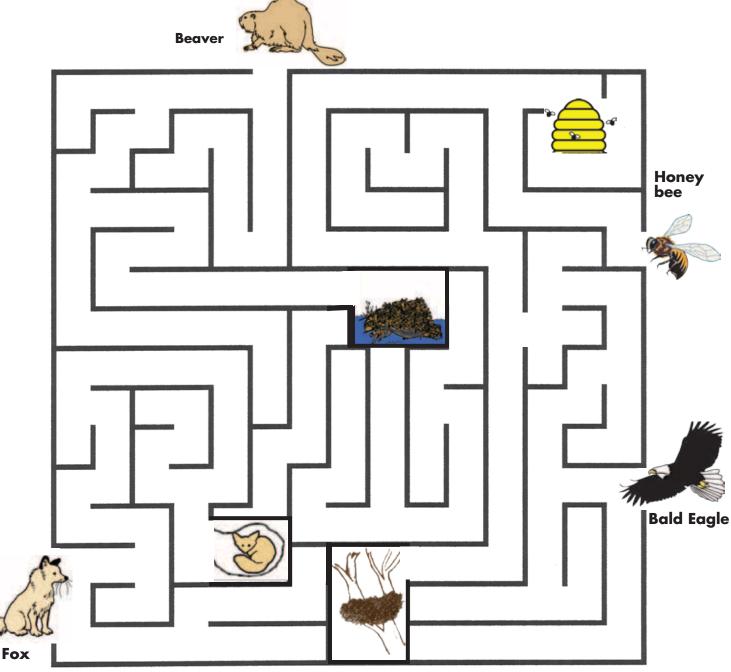
- Deer have eyes on the sides of their head. They can see almost everything around them except for objects directly in back of them. They can run up to thirty miles an hour and leap eight feet into the air.
- Blanding's turtles often don't have babies until they are 14 or older. These rare turtles can live more than 70 years. Visit www.bpws.org to see how Maine folks are working to preserve the Blanding's turtle.
- Compounds from seaweed make ice cream creamier and pudding thicker. Check your toothpaste for carrageenan. That's from seaweed, too.
- A female snapping turtle lays between 30 and 50 eggs at a time. Each egg is the size of a ping-pong ball.

Opossums have thumbs on their hind feet.

## Animal Homes

Animals build homes that protect them from weather and predators. Foxes live in underground dens with many rooms. Owls and some squirrels make nests in the holes of old trees. A bald eagle's nest weighs more than one ton and is high in a tree. Chipmunks make nests, too, but their homes are in tunnels under the ground. Beavers live in ponds in lodges made of branches and twigs. As many as 90,000 bees live in one hive. How many animal homes can you see on your hike?

### Help the animals find their way home.



## Plants

There are more than 300,000 known species of plants. Plants are living organisms like animals, but they have their own way of doing things. They make their food from carbon dioxide, water, and the sun's rays. This process, called photosynthesis, helps make a plant's leaves green and feeds the plant's cells.

Air is a mix of oxygen, carbon dioxide, and other gases. Plants absorb air through tiny holes in their leaves, called stomata. Plants mix the carbon dioxide with water they soak up from the ground through their stems. The warmth from the sun provides the energy to change the mixture into sugar, which plants use as food. Plants then release the oxygen they absorbed but did not use. People use that oxygen to breathe.

### How a Plant Supplies Oxygen

This experiment shows how plants give off oxygen. You can do this at home.

*What you'll need:* A big bowl filled with water, a glass jar with a wide mouth, water plants from an aquarium store or from a pond (only if you get permission).

*What to do:* Let the water bowl sit for a few days to get rid of chlorine. Place the water plants in the bottom of the bowl. Dip the glass jar in the bowl and fill it with water. Then place the jar over the plants (make sure there is no air in the jar). Put everything in a sunny window.

*What will happen:* After a few hours, bubbles will rise from the plants. After a while, the bubbles will form a pocket of air at the top of the jar. The plants are releasing oxygen. Because oxygen is lighter than water, it floats to the top of the jar.

### Trace a leaf found on your hike in the space below.



## The Beach

The ocean washes against loose rocks and grinds them to form sand. The sandy beaches are home to all kinds of creatures. Crabs, clams, insects, and birds live there. They feed on other sea creatures and on plant food that the ocean brings. Crabs eat mussels, snails, seaweed, and other plants. A crab crawls around on ten legs and has eyes at the end of stalks on its head. If a lobster or a crab loses a claw, a new one grows back. Clams burrow into the sand and use a siphon (like a straw) to suck in ocean water. They eat tiny plants in the water. Sandpipers have long beaks and legs so they can wade in the water and dig in the sand for tiny insects. The beach is also a great place for kids to build sand castles in the sand. How many animal tracks can you spot on the beach? How many living things can you see?

### Circle the hidden words of things at the beach.

Words can run down, across, or diagonally. Put a check mark in front of each item that you saw on your hike.

G	W	С	S	Η	Ε	L	L	S	D
D	S	L	R	X	С	S	R	Ε	Q
R	Ν	Α	D	A	Υ	T	Τ	Α	
	Α	M	Ν	L	B	A	R	W	L
F		Ε		D	Ε	R	A	Ε	0
Т	L	U	S	G	Ρ	F	Ρ	Ε	В
W	Α	V	Ε	0	L		U	D	S
0	С	Ε	Α	Ν	Η	S	Ρ	Α	Т
0	J		L	S	Μ	Η	D	Ε	Ε
D	M	U	S	S	Ε	L	С	B	R

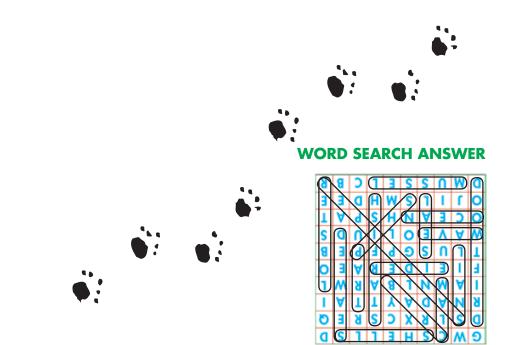
WORDS

**CLAM** MUSSEL **SHELLS CRAB** EIDER SEAL **STARFISH** WAVE **SEAWEED** SANDPIPER LOBSTER **SNAIL** TRAP (lobster) DRIFTWOOD **OCEAN** SHIP

Answer on next page

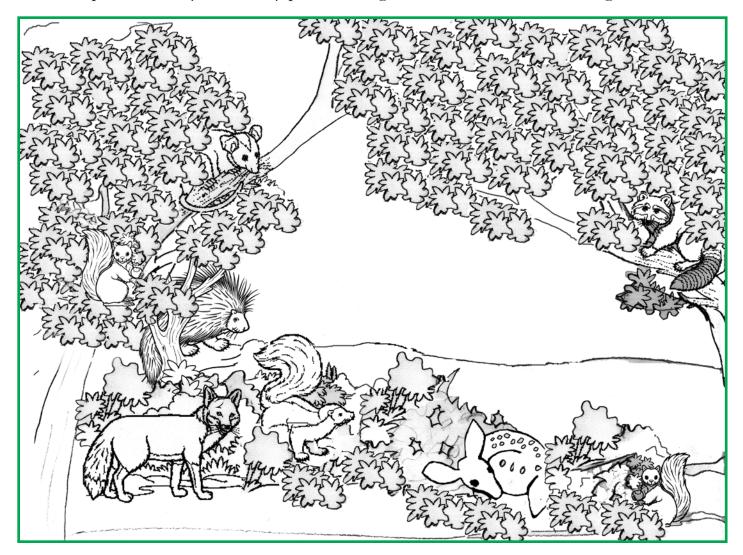
### My Favorite Thing on this hike was ...

Draw or write about something you enjoyed



## Peek-a-boo

Animals need to protect themselves against enemies. One way is to blend in with the surroundings. This is called camouflage. Some animals use this ability to hide from predators. Other animals hide in holes or have special ways to stay safe. A skunk threatens to spray its enemies, and a porcupine has sharp quills. An opossum plays dead when danger is near. Can you identify and color the animals in this picture? Do you see any places along the trail where animals might hide?





### Our thanks

This activity booklet is produced by Saco Bay Trails and made possible by a generous grant from Coastal Healthy Communities Coalition, a program of UNE's College of Osteopathic Medicine. For more information on the 5210 program, please visit www.letsgo.org. This



booklet was written and researched by Ranger Janet Mangion of Ferry Beach State Park in Saco, Maine, and Susan Dudley Gold of Custom Communications Inc. of Biddeford, Maine. Additional assistance was provided by Jane Hamblen and Marie O'Brien of Saco Bay Trails and the Maine Department of Conservation, Bureau of Parks & Lands.