Black Bear Ecology

Life Systems – Growth and Changes in Animals

A Guide for Grade 2 Teachers







Introduction

Welcome to Black Bear Ecology, Life Systems – Growth and Changes in Animals, a Guide for Grade 2 Teachers.

With a focus on the fascinating world of black bears, this program provides teachers with a classroom ready resource. Linked to the current Science and Technology curriculum (Life Systems strand), the *Black Bear Ecology* Guide for teachers includes:

- background readings on the Bears of North America; hibernation and bear-human interactions;
- unit at a glance;
- five lesson plans and suggested activities;
- resources including a glossary; list of books and web sites and information sheets about black bears.

At the back of this booklet, you will find a compact disk. It includes in Portable Document Format (PDF) the English and French versions of this Grade 2 unit; the Grades 4 and 7 units; the information sheets and the Are You Bear Wise? eBook (2005).

This program aims to generate awareness about black bears – their biological needs; their behaviour and how human action influences bears. It is an initiative of the Ontario Ministry of Natural Resources.



Acknowledgements

The Ministry of Natural Resources would like to thank the following people for their help in developing the Black Bear Ecology Education Program. This education program would not have been possible without their contributions and efforts.

Trent Centre for Community-Based Education, Peterborough, Ontario

Barbara Woolner Jennifer Bowe Sylvia Davies

Trent University, Peterborough, Ontario

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Dianne Gendron, Grade 4 teacher and the class of 2006

Paul Burkett, Grade 7 teacher and the class of 2006

James Strath Public School, Peterborough, Ontario Bern Kelly, Grade 4 teacher and the class of 2006

Additional Reviews:

Dr. Stephen Herrero, Bear Expert and University of Calgary Professor

Also available online at: ontario.ca/bearwise

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Cette publication est également disponible en français.

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Black Bear Ecology Background Readings:

The following background information will help teachers to prepare for and deliver lessons one to five of the Black Bear Ecology education program.

The Bears of North America

Polar Bears

Polar bears are found in the ice-covered regions of the Arctic. They stay out on the ice as long as possible to hunt for their main source of food, seals. All winter long polar bears store body fat so that they can keep warm and survive the summer months, when food is not so plentiful. As the ice melts during the summer months, polar bears follow the ice flow until they eventually have to go to land. During the summer they eat berries and may scavenge on seal or whale carcasses.

Polar bears are the largest land predators in the world today. A male polar bear can weigh between 349 to 680 kilograms (or 770 to 1500 pounds). Females typically weigh between 158 to 326 kilograms (or 350 to 720 pounds). A very fat, pregnant female can weigh as much as 408 kilograms (or 900 pounds).

Polar Bear cubs are born in the den in late November through early January. When they are born they weigh about half a kilogram (or one pound), their eyes are closed, and they cannot walk. After about two months, cubs emerge from the den on a daily basis.

Key to their survival in this harsh environment is their hair and skin. The hair of a polar bear is hollow. This allows the hair to trap air, which in turn insulates the bear from its surrounding polar environment. Their skin is in fact black. The black skin helps to absorb what little heat there is from the sun.

Grizzly Bear

Grizzly bears are found in the western part of Canada in the provinces of British Columbia, Alberta, Yukon and the Northwest Territories and Nunavut. Their preferred environment is pristine rocky mountain areas with large, open meadows surrounded by forests.

Also called brown bears, grizzlies have a distinctive hump on their back, at the shoulder. This hump is a mass of muscle that enables grizzlies to dig rapidly and efficiently. Grizzly bears will often excavate the holes of ground squirrels and other rodents to get food. Grizzly bears also feed on berries (blueberries, etc.), roots and bulbs of plants. Grizzlies may also prey on moose, elk, mountain goats and mountain sheep, and in the spring, on the young of these animals. Another major food source for grizzlies are the salmon that move up the Rocky Mountain rivers every year to spawn.

Black Bear

The American black bear lives in forests as far south as Florida and northern Mexico and as far north as forests grow in Alaska and Canada. The black bear's fur is usually black or brown but can sometimes be blonde or white.

Black bears are omnivorous, but the bulk of their diet is in fact plant material including grasses and other plant matter, young leaves on trees and shrubs, fruits and berries, and hazel nuts, beech nuts and acorns. These are their preferred foods. Black bears will eat carrion, insects, fish and deer and moose calves; however meat is not a big part of their diet.

A bear's life evolves around food. Their survival depends on their ability to gain as much weight as they can (at least double) before they begin hibernation. A lack of their preferred foods can prevent female bears from producing cubs and/or result in bears not being able to survive the winter.



Hibernation:

For the most part, black bears begin to hibernate in early November and will not emerge until the following spring. They hibernate because their preferred food sources during this time are either not sufficient to provide them with the energy they need or simply no longer available. They hibernate for months without eating, drinking, urinating or defecating. While in hibernation, their body temperature lowers only slightly, thereby reducing their metabolic demands by half. Females wake up to give birth, typically between the middle and end of January. They take excellent care of the cubs in the den, licking them clean and responding to every cry for warmth and milk. Typically, females produce one to three cubs. Young females often have one cub. At birth cubs weigh about one quarter to one half of a kilogram (or half to one pound each). Whether a female bear has cubs, and how many, usually reflects the amount of food available the previous season.

Cubs normally stay with their mother for about 18 months. When scared, black bear cubs will quickly climb a tree and call for their mother. Adult black bears are the only North American bear that will regularly climb trees for protection and food. An adult grizzly is not a good tree climber because of its size and long claws which are adapted more for digging than climbing.

For more detailed information regarding the annual life cycle of black bears see the Resources Section in this kit. Also the Bear Wise eBook contains valuable information about black bears and black bear ecology. It is included on the Compact Disk included with this kit. You can also download the eBook from the Bear Wise web site: ontario.ca/bearwise.

Bear-Human Interactions:

When you are at the cottage, at home, camping, or out for a walk and you see a bear, you might feel as though the bear has entered your habitat. It is important to remember that bears and humans often share habitats. People like the forest, being near or on water and in places where there are fewer people. So do bears.

As previously stated, a bear's survival is strongly linked to its ability to find and consume great quantities of natural foods (like berries, acorns and beech nuts) in a short period of time. These foods are typically found in forested areas.

More and more humans are camping, fishing and hiking. Humans undertake work activities like farming, mining and forestry. Humans are also building homes, cottages and developing areas that are in or near prime bear habitat.

Humans share their homes with all other living things like bears. We all rely on our habitat to meet our basic needs. It is important to keep in mind that human action can either positively or negatively affect habitat and everything that lives in it.

This is especially true when it comes to black bears. They have a biological need to consume great quantities of food in relatively little time. Their survival and ability to have and raise young depends on it. The availability of their natural food varies from abundant, to normal, to poor. When natural food sources are poor, black bears will travel long distances to find another food source. Though they prefer natural foods, they will eat just about anything people will eat to survive.

Bears' need for food is so great, that they will investigate smells like grease and food residue left on a barbecue. Bird food, garbage, pet food and agricultural crops all provide an easy meal for bears. Bears will eat garbage. This is neither natural nor desirable. However, their biological instinct to survive drives bears to these human-caused unnatural food sources, especially in years when their natural foods are poor. This results in human-bear conflicts. In one way or another, human-bear conflicts are the result of human action or inaction.

People can change. Bears cannot. Therefore, it is people who must take responsible action to make sure that unnatural food sources are not accessible to bears. The safety of people and the lives of bears depend on it.

Please refer to the Resources section of this document for more information about black bears, how to prevent human-bear interactions and what to do during a bear encounter.



Black Bear Ecology Unit – Grade 2

Unit at a glance

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Topic: What are Bears?	Topic: Year in the Life of a	Topic: Hibernation	Topic: Motherly Love	Topic: Black Bear Safety
Duration: 1-2 periods	Black Bear	Duration: 1-2 periods	Duration: 1-2 periods	Duration: 1-2 periods
B: Read Aloud	Duration: 1-2 periods	B: Read Aloud	B: Read Aloud	B: Student stories
M: Bear environment and	B: Discussion and read	M: Art Activity: Winter	M: Motherly Love activity	M: Bear Wise True or
adaptation activity		versus Summer	C: Review of bear	False?
C: Display finished	M: Poster Activity; Bear Walk Survival Game	C: Student presentations	information	C: Bear prevention
habitats on bulletin board		and display	Materials: Activity 3A,	discussion
Materials: Activity 1A,	C: Class discussion	Materials: Art materials	scissors, chart paper from	Materials: Activity 4A,
glue, scissors	Materials: Scissors, glue, chart paper, coloured wooden sticks, activity 2A		lesson 2	black board or chart paper, markers



Black Bear Ecology

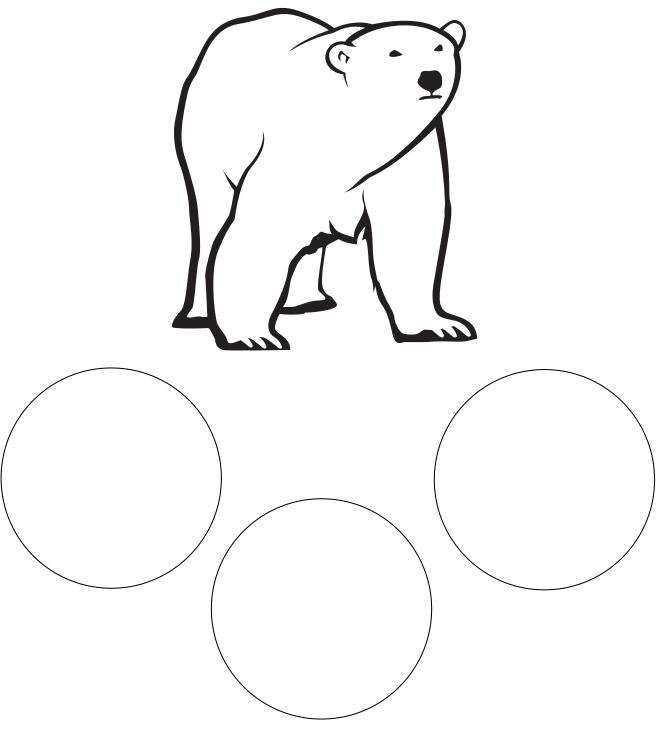
	son: One ation: One to two periods
	son Topic: What Are Bears? kground Reading: Bears of North America
■ <i>E</i>	rectations: Induring Understanding: What kinds of bears are found in North America? How are they different? How are they the same? How is each species adapted to its environment?
	Curricular Expectations: Describe ways in which animals respond and adapt to their environment.
	rning Materials: Activity 1A Scissors Glue
	son Sequence: leginning:
	ead Aloud – Bears: Polar Bears, Black Bears and Grizzly Bears. By: Deborah Hodge. Pg. 32 If this book in unavailable at the local or school library, then any short, illustrated book about polar bears, black bears and grizzly bears will do. Other books include: Into the Bears' Den by Dave Taylor (Scholastic Books), Bears: An Animal Fact Book, by Alfred Brockman and Bears (Animals in the Wild), by Mary Hoffman.
	Following the book, have students compare the three North American bear species (Polar Bear, Grizzly Bear and Black Bear). Comparisons should include what they eat, where they live and any adaptation they have to help them survive. It is important that black bears and polar bears are identified as the only two bear species living in Ontario.
■ <i>N</i>	1iddle:
В	ear Environment and Adaptation Activity (Activity 1A)
	Divide the class into groups of 3.
	Each student will receive one of the three bear species and the group will receive the environment, food and adaptation cut outs. Make sure each group has one polar bear, one grizzly bear and one black bear.
	Students are to cut out and glue the appropriate environment, food and adaptation to each bear species (See Example 1A).



■ Closure:
□ Display finished activities on bulletin board.
Discuss with class what they have learned about adaptations. Can they think of any other animals that have adaptations to their environment?
■ Checks for understanding:
Did students correctly complete the activity, assigning the environments, foods and adaptations to the proper bear species?
□ Were students able to think of other animals with special adaptations?
Evaluation of Learning:
Students should be able to accurately indicate which environment, food and adaptation belongs to each of the bears. Students may also be evaluated based on how they work in a group and cooperate with their group members.
Teacher Reflections:

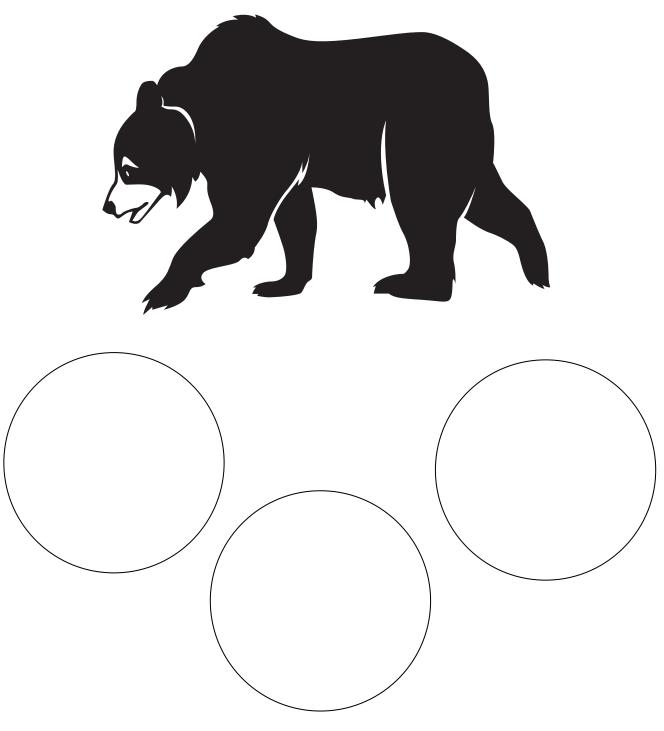


Polar Bear



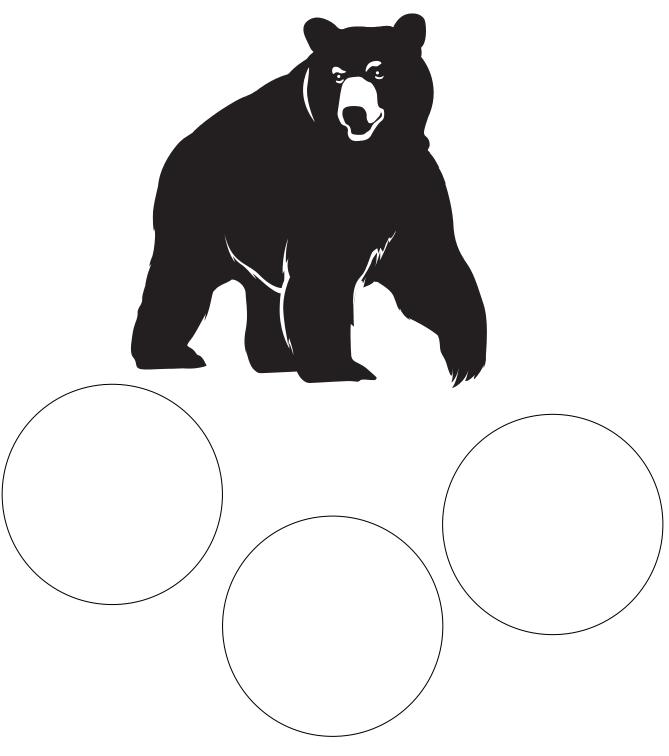


Grizzly Bear





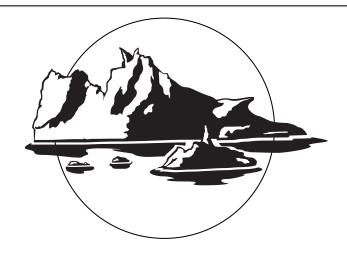
Black Bear



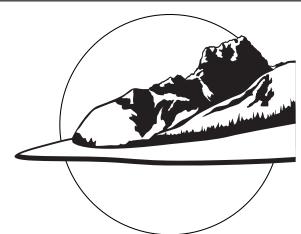


Environment

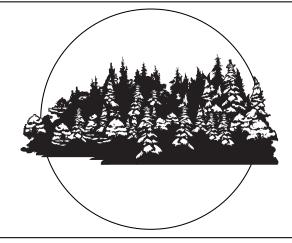
Polar Environment



Mountains & Meadows



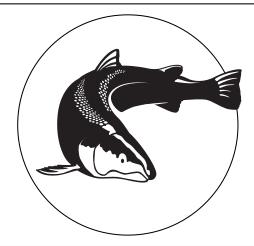
Forests



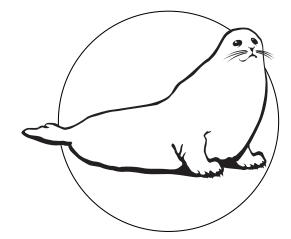


Food

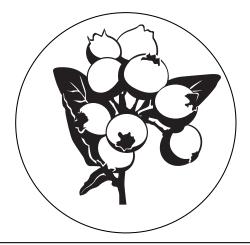
Salmon



Seals



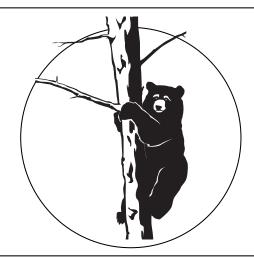
Blueberries





Adaptation

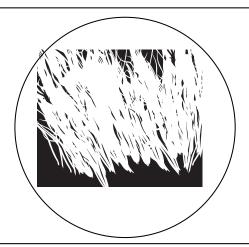
Climbing



Powerful Paws for Digging



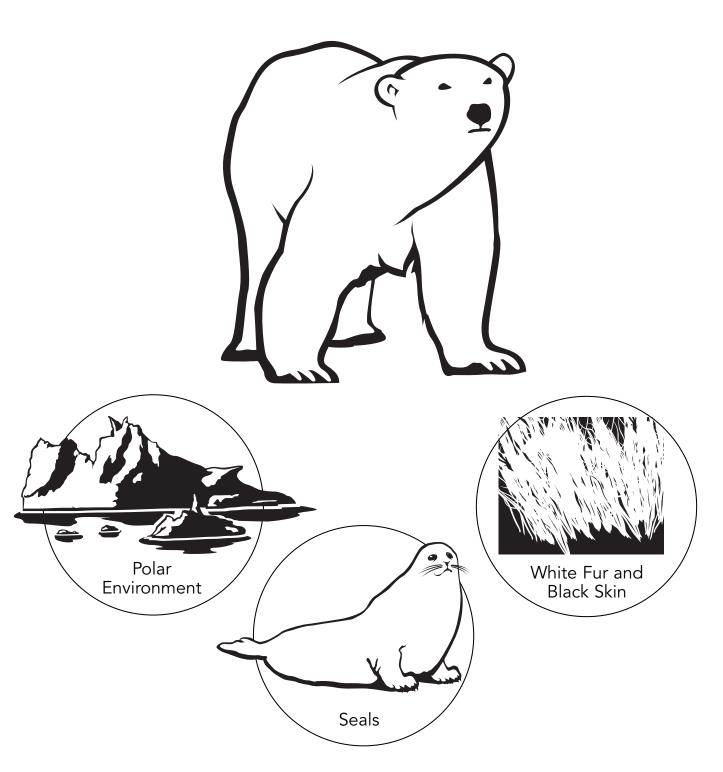
White Fur and Black Skin





Example 1A

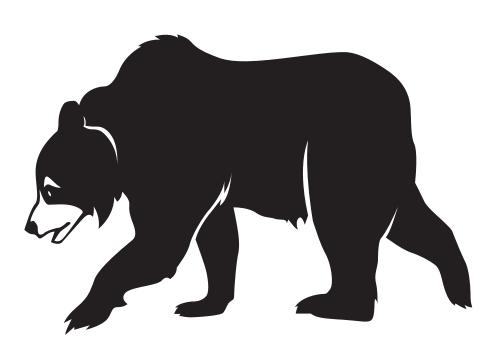
Polar Bear





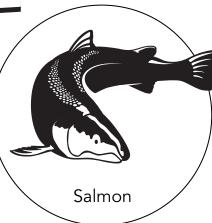
Example 1A

Grizzly Bear





Mountains and Meadows



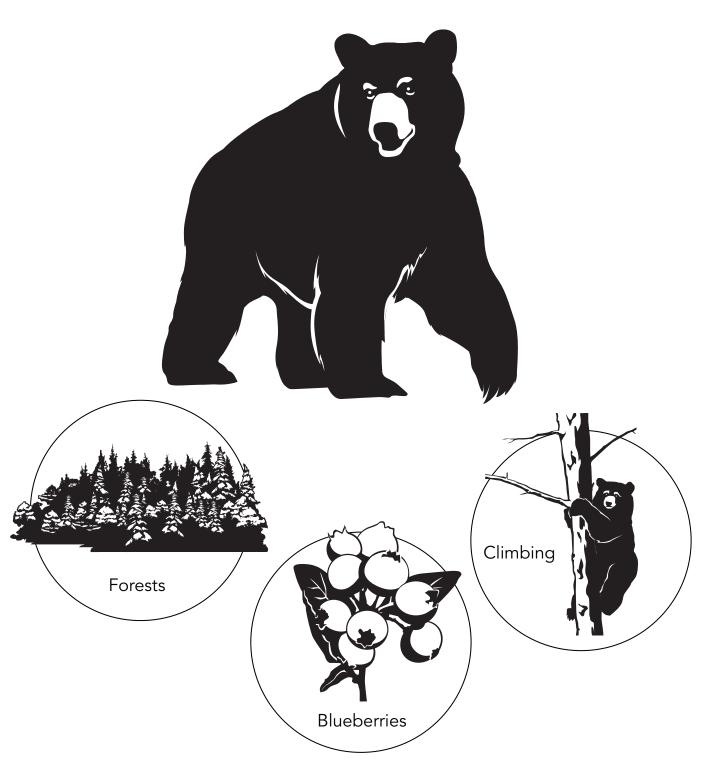


Powerful Paws for Digging



Example 1A

Black Bear





Black Bear Ecology

Lesson: Two **Duration:** One to two periods

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Lesson Topic: Year i	in the Life of a Black Bear
Background Readir	ng: Year in the Life of a Black Bear and the Bear Wise Technical report.
Expectations:	
■ Enduring Unders	tanding:
□ What do black	bears eat and how do they survive?
☐ How does blac	k bear behaviour change with the seasons?
□ Why do they b	ehave the way they do at different times of the year?
■ Curricular Expect	cations:
□ Identify and de (hibernation).	scribe behavioural characteristics that enable animals to survive
Compare ways their needs.	in which animals eat their food, move and use their environment to meet
Learning Materials:	: Activity 2A
□ Scissors	□ Glue
□ Chart paper	□ Coloured wooden sticks
Lesson Sequence:	
5	

Beginning:

Year in the Life of a Black Bear

- ☐ Ask students to share their knowledge of black bears. Information presented by students should be recorded on a piece of chart paper, regardless of whether it is correct or not. The chart paper should be on display for the duration of the unit. The information will be revisited and incorrect information or myths addressed at the end of the unit.
- □ Read Aloud: Black Bears, by: Kathy Feeney and John F McGee
 - If this book is unavailable, any children's book concerning general bear biology and life cycle will work. Refer to the Resources Section for other options.
 - Special focus should be placed on food habits, survival strategies (hibernation, etc.) and the annual cycle of black bears.

■ Middle:

Poster Activity

- Following the read aloud activity, present the year in the life of a black bear activity (Activity 2A).
- Prior to the arrival of students cut out seasons, events and foods found on activity sheet 2A.



- On a large piece of paper, paste the seasons in a circle, as seen in Example 2A.
- Following the read aloud, have students decide where each of the events and food items fit in a typical year of a female black bear.
- The finished product should resemble Example 2A. For more detailed information about where to place the different components see page 6 of "Nuisance Black Bears and What to do With Them" technical report provided in the Resources section.
- Ask students if they can think of any reasons why bears would eat certain foods at different times of the year (example: why do bears eat berries in the late summer?)

Bear Walk Survival Game

- This activity is best played in an area where there is lots of room to move about, such as a gymnasium or a playing field. The activity can be modified for the classroom by moving desks to one side of the room.
- In this activity, coloured wooden sticks, representing food, are placed/hidden throughout the playing area. There are four colours red, blue, yellow and black.
- The game mimics the year of a black bear in that students leave their "dens" and must collect enough food (the four different coloured wooden sticks) before the arrival of the next winter.
- Students have a limited amount of time to find the wooden sticks.
- Music can be played during the activity and the teacher should call out the seasons as the game progresses towards winter.
- Once the music stops, students must return to their "dens" with the food they have collected.
- "Dens" can be chairs positioned in the play area or simply spots marked out on the floor.
- Students with all four coloured sticks move to the next round, whereas, students with fewer than four sticks do not survive the winter and are eliminated.
- The number of sticks depends on how long the activity is to be played and how easily the students find the sticks.
- The duration of each round is determined by how long it takes students to find all four sticks. Approximately one third to one quarter of the group should be eliminated in each round.
- Students should move on all fours, behaving like bears. This will help in controlling the behaviour of students and prevent running.

■ Closure:

Teacher Led Discussion

- ☐ Have students reflect on the challenges involved in finding enough food to survive the winter.
- ☐ Ask questions such as:
 - Who found it hard to find enough food to survive the winter?
 - Why was it so hard to find enough food?
 - Those students that made it through a couple of rounds, did you do anything special (strategies) to help find food?



Checks	for	understa	ndina:

- □ Were students able to correctly place food items in the correct season of the year?
- □ Were students able to justify why bears eat certain foods in certain seasons (based on food availability)?
- □ Did students reflect on challenges faced in finding enough food during the Bear Walk Survival Game?

Evaluation of Learning:

Students can be evaluated on a number of different aspects of the activities presented in this lesson. Group participation during the Year in the Life activity can be evaluated. Also, were students able to maintain their role as a black bear during the survival game, without becoming overly excited? Finally, did the students stay attentive during the read aloud activity?

Teacher Reflections:	

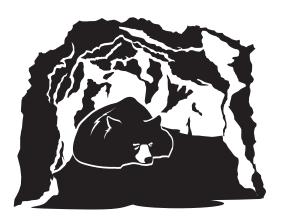


Seasons

Summer Fall Winter Spring

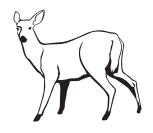
Events

Cub is BornMother and Cub L_{eave} D_{en} Mother and Cub are R_{eaq} to Enter the D_{en}



Hibernation

Seasonal Foods













Summer

Spring

Fall

Winter

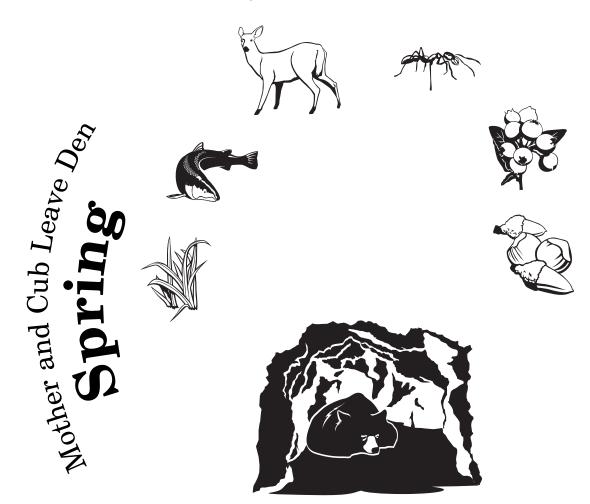


Mother and ub are Ready

Example 2A

The Year in the Life of a Female Black Bear

Summer



Hibernation

Winter

Cab is Born



Black Bear Ecology

Lesson: Three
Duration: One to two periods
Lesson Topic: Hibernation
Background Reading: Year in the Life of a Black Bear – Hibernation
Expectations:
■ Enduring Understanding:
□ Why do black bears hibernate?
□ Where do black bears hibernate?
□ When do black bears hibernate?
□ Are bears the only animals that hibernate?
Curricular Expectations:
$\hfill \square$ Identify and describe behavioural characteristics that enable animals to survive (hibernation).
 Produce two- and three-dimensional works of art (i.e., works involving media and techniques used in drawing, painting, sculpting, printmaking) that communicate their thoughts and feelings on familiar topics (Art Curriculum).
Learning Materials:
□ Book: Good Night Bear
□ Finished Activity 2A from previous lesson
□ Art materials (crayons, paints paper, etc.)
Lesson Sequence:
■ Beginning:
Read Aloud – Good Night, Bear, by Joanne Mattern
 If this book is unavailable, there are a number of other books that outline hibernation in bears. See the Resources Section of this kit.
Review – A Year in the Life of a Black Bear
 Reinforce the fact that bears must store lots of energy in order to survive their winter hibernation.
 It is also important to indicate that black bears go into hibernation because their natural food sources are no longer abundant.
■ Middle:
Art Activity: Winter vs. Summer
□ Students will create two pictures, the first being a summer scene of a bear with a number of food sources. The second is the contrast of the first, a winter scene where there are little or no food sources for the hibernating bear.
☐ Students can use a variety of methods to complete their pictures (i.e. pencil crayons, paints, etc.



Closure:
□ Students should be encouraged to present their works of art.
 Ask students to describe why certain images are present or absent in the picture. (Example: Why are there berries in your summer picture and none in the winter scene?)
$\hfill\Box$ Completed art work can be put up for display in the classroom.
■ Checks for understanding:
☐ Are the students able to recall where certain food fits into the annual cycle of a black bear?
☐ Ask students why they think bears hibernate.
□ Does the students' art work demonstrate an understanding of changes of the environment between summer and winter and how that affects the behaviour of a black bear?
Are students able to defend why they have included certain images into their summer and winter scenes?
Evaluation of Learning:
Attentiveness and group participation during the read aloud and review activities should be evaluated. Student art work should also be graded for its ability to decipher between difference in the environment of a black bear during the summer and winter.
Teacher Reflections:



Black Bear Ecology

Lesson: Four
Duration: One to two periods
Lesson Topic: Motherly Love
Background Reading: Black Bear Cub, by Alan Lind and Katie Lee
Expectations:
■ Enduring Understanding:
□ How are bears and humans the same?
□ How are they different?
Curricular Expectations:
☐ Identify constant traits and changing traits in animals as they grow, and compare the appearance of young and mature animals of the same species.
□ Compare ways in which different animals care for their young.
Learning Materials:
□ Activity 3A □ Scissors
□ Chart paper from Lesson 2
Lesson Sequence:
■ Beginning:
Read Aloud: Black Bear Cub, by Alan Lind and Katie Lee
 Ask students what they have learned about black bears and their cubs, specifically, whe and where are they born.
■ Middle:
Motherly Love Activity: Activity 3A
 The goal of this activity is to highlight similarities and differences between humans and bears in how they care for their young.
□ This activity is completed as a class.
 Prior to class, the teacher should create an empty table similar to the one in Activity 3A The pictures should also be cut out prior to the arrival of students.
☐ The questions are:
Are humans/bears mammals?
■ Where are babies/cubs born?
■ Where do humans/bears live?
■ How does the baby/cub eat?
How are babies/cubs protected?
How long do babies/cubs stay together with their mothers?



- ☐ The activity is completed as follows:
 - 1) The teacher will ask the first question; "Are human babies mammals?"
 - 2) Students will draw upon previous knowledge and express their answer to the class. If the students agree that a human is a mammal then one of the "YES" cut outs is placed in the square. If the class agrees that humans are not mammals, then they should be given the information necessary to give a correct answer.
 - 3) This process continues for the remaining questions. Once the class agrees on the correct answer, the cut out is placed in the appropriate spot in the table.

■ Closure:

Review of the original bear information

□ Using the chart paper from lesson 2, read aloud each of the facts. Have students state whether information is correct or not. If the information is not accurate, cross it out and fill in the correct information. Once all the facts have been reviewed, ask the students if they have any other facts they would like to add.

■ Checks for understanding:

- □ Were students able to compare humans and bears by answering the questions in Activity 3A?
- □ When reviewing bear facts from lesson 2, were students able to use what they have learned to correctly identify which facts were correct and which were false.

Evaluation of Learning:

Ta a ala a u Dafla atta u a .

Group participation and student's willingness to share ideas should be evaluated.

reacher Reflections:		



Motherly Love

	Human Baby	Bear Cub
Are humans/ bears mammals?		
Where is the baby/cub born?		
Where do humans/bears live?		
How does the baby/cub eat?		
How is the baby/cub protected?		
How long do babies/cubs stay together? (Years)		





















18 1½ 9 3 Yes Yes



Example 3A

Motherly Love

	Human Baby	Bear Cub
Are humans/ bears mammals?	Yes	Yes
Where is the baby/cub born?		
Where do humans/bears live?		
How does the baby/cub eat?		8
How is the baby/cub protected?		CO CO
How long do babies/cubs stay together? (Years)	18	1½



Black Bear Ecology

Lesson: Five

Duration: One to two periods

Lesson Topic: Black Bear Safety

Background Reading: Human - Bear interaction

Expectations:

■ Enduring Understanding:

□ What to do in the event of a bear encounter?

☐ What can be done in the schoolyard and around the house to prevent black bear encounters?

■ Curricular Expectations:

☐ This lesson does not meet any particular curriculum expectations.

Learning Materials: Activity 4A Bear Wise True or False

□ Black board or chart paper

Lesson Sequence:

■ Beginning:

☐ Ask students to share their stories about encounters with black bears. You could also ask them what do they think about bears and why? Limit this to only one story per student.

■ Middle:

Bear Wise True or False

- ☐ Write the following statements on the black board or on a piece of chart paper:
 - Black Bears are mean animals.
 - Black Bears mostly eat plants.
 - If you leave garbage outside, bears WON'T come and eat it.
 - A bear will run away if it sees you.
 - While camping, storing food in your tent will protect it from bears.
 - Litter and garbage in the schoolyard might attract bears to your schoolyard.
 - If you come close to a black bear, you should run really fast.
 - Yelling at a bear might scare it away.
 - If you and your friends see a black bear while playing, you should keep playing and ignore the bear.
 - Bears are beautiful animals that should be respected.

Answers: F, T, F, T & F, F, T, F, T, F, T.



 Ask students: "Who believes the statement to be true?" to raise their hands. Tally the number of "Trues" and record it on the chart paper. Now ask the students: "Who believes the statement to be false?" to raise their hands. Tally the number "Falses" on the chart paper. Reveal to the students the correct answers. Prior to explaining the reasoning behind the answer, ask students if they know why that is the correct answer. Follow this process until all ten statements listed above have been covered. 	
■ Closure:	
Group discussion about bear prevention:	
 As a group, brainstorm methods for preventing bear encounters around the house, schoolyard and cottage. 	
 Pay particular attention to how to manage attractants such as garbage, pet food, bird feeders and barbecues. 	
■ Checks for understanding:	
□ Students should be able to take the information presented in the true or false session and use the to develop ideas about how this applies to their life and how they can prevent bear encounters.	ìt
□ Students should be able to describe what to do in case of a bear encounter.	
Evaluation of Learning:	
Students can be evaluated based on how they participate in group discussions and how willing they are to share stories and ideas with the rest of the class.	
Teacher Reflections:	
reacher Kenections.	
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Bear Wise True or False

1) Black Bears are mean animals? (False)

While black bears can be dangerous, they are actually very timid animals. In fact, the most common human bear encounter is the one that never happens. Bears will rarely attack humans with the intention to eat them. Since the early 1900s there have been fewer than 70 deaths in North America as a result of black bears. Predatory attacks usually happen in remote areas, where bears are not used to seeing humans.

Bears can become habituated to humans if they are successful at finding non-natural foods where humans live, camp, work or recreate. They are easily attracted to human-caused attractants like garbage, bird and pet food, and smells like grease and food residue on barbecues. They will investigate these non-natural food sources. If their investigation results in finding food (garbage, bird feed, etc.), bears will return until they no longer find food at that location. Bears will lose their natural fear of humans if they are hand fed. People have been bitten or scratched while attempting to feed panhandling bears along roadsides.

2) Black Bears mostly eat plants? (True)

Black bears eat both plants and animals, but the bulk of their diet is plant material. Berries, fruits and nuts are very high in energy, which is important if the bear is to survive its winter hibernation. When these food sources are poor, bears will also eat carrion, fish, insects, livestock, moose and deer calves. Black bears are selective feeders and prefer foods that are accessible, high in energy and easy to digest. They eat both plants and animals, but the bulk of their diet is plant material.

3) If you leave garbage outside, bears WON'T come and eat it? (False)

Bears have a keen sense of smell that enables them to locate food sources, including many that are not obvious to humans. Black bears can pick up smells (like garbage) from more than 1.6 kilometres (one mile). They will investigate smells. If their efforts are rewarded (with a bag of garbage) then they will return again and again. To stop this, people must take steps to ensure that bears cannot smell or get into garbage.

4) A bear will run away if it hears/sees you? (True and False)

This is both true and false. As mentioned above, black bears are very timid creatures and do not like to be around humans.

Exceptions include a startled bear (it did not see or hear you) or a female bear with cubs. Bears will give you warning signs that they are stressed and want you to back off. They will bluff charge, stand on their hind legs and make popping sounds with their jaws. When people see this, the best thing to do is give the bear some space by backing away slowly. Do not run, and do not take your eyes off the bear. Read about how to handle bear encounters in the Resources Section.

Rarely will bears follow or stalk humans with the intent to attack. Predatory bears rarely give the warning signs mentioned above. Please refer to the Resources Section for more information on the different types of bear encounters. If you are attacked by a black bear, fight with everything you have. Do not play dead.



5) While camping, storing food in your tent will protect it from bears? (False)

The smell of food (including candy wrappers, or cooking smells on clothes) will attract bears to the tent. This is also true of toothpaste, deodorant and even sunscreen. Always keep these items out of your tent. Control food odours by packing all items in plastic or by using bear resistant containers. Keep food, toiletries, and clothes in which you cook, together, and stored away from your tent.

6) Litter and garbage in the schoolyard might attract bears to your schoolyard? (True)

Even the tiniest piece of garbage, such as an apple core could attract a bear. Schoolyards should be kept clean and free of litter. All garbage must be carefully managed and stored.

7) If you come close to a black bear, you should run really fast? (False)

If you encounter a black bear, stop. Do not turn and run. Bears can reach speeds of 50 kilometers per hour. If you see a bear, back away slowly and get the bear to run away from you. If the bear comes toward you, drop your backpack and continue to back away.

8) Yelling at a bear might scare it away? (True)

Yelling at a black bear and telling it to go away is a good way to scare the bear away.

9) If you and your friends see a black bear while playing, you should keep playing and ignore the bear? (False)

You and your friends should group together and walk away from the bear, always watching to see what the bear is doing. If the bear starts to come toward you, make lots of noise and stay together. Tell the nearest adult what has happened and where you saw the bear.

10) Bears are beautiful animals that should be respected? (True)

Black bears are beautiful animals and are a treat to see in their natural environment. They should be admired and respected. Remember, these are wild animals and should never be fed.

Please refer to the Resources section of this document for more information on how to prevent human-bear interactions, types of encounters and what to do if an encounter can't be avoided.

Black Bear Ecology Resources





Grade 2 Resources

Read Aloud Resources:

Polar Bears, Grizzly Bears and Black Bears:

Bear

By Mary Hoffman

Bears

By Dagmar Fertu, Michelle Reddy and Eric Stoops

Bears

By Alfred Brockman

Bears

By Susan Kuchalla

Welcome to the World of Bears

By Diane Swanson

Black Bears:

Into the Bears' Den

By Dave Taylor

Black Bear: North America's Bear

By Stephen Swinburne

Black Bears

By Kathy Feeney and John F. McGee

Black Bear

By Tom Leeson and Pat Leeson

Black Bears

By Marcia S. Freeman and Gail Saunders-Smith

Black Bears

By Diana Star Helmer

Black Bear Hibernation

Wake up, Black Bear

By Dawn Bentley and Beth Stover

Good Night, Bear

By Joanne Mattern and Susan T. Hall

How Do Bears Sleep (Carolrhoda Picture Books,

Paperback)

By E.J. Bird

Black Bear Cubs:

Black Bear Cub By Alain Lind Video and DVD Resources:

Bear With Me

By Pinegrove Productions

Distributor: McNabb and Connolly

Internet Resources:

Polar Bears, Grizzly Bears and Black Bears:

Get Bear Smart Society, British Columbia http://www.bearsmart.com/

CyberHunt Kids: Bears in North America

http://teacher.scholastic.com/products/instructor/bears.htm

North American Bear Centre

http://www.bear.org/

Black Bears:

Bear Wise, Ministry of Natural Resources Ontario

http://ontario.ca/bearwise

Black Bear Beware! Parks Canada

http://www.pc.gc.ca/apprendre-learn/jeunes-youths/

sec1/on-bb/p1h_E.asp

Secrets of Hibernation

http://www.pbs.org/wgbh/nova/satoyama/hibernation.html

USFS/IGCB - Black Bear

http://www.fs.fed.us/rl/wildlife/igbc/cwi/blackbear.htm

MountainNature.com – Black Bears

http://www.mountainnature.com/wildlife/animalslatinname

result.asp?ID=43

EnchantedLearning.com

http://www.enchantedlearning.com/subjects/mammals/bear/

Amblackcoloring.shtml

General:

Eco Kids, Canada

http://www.ecokids.ca/pub/index.cfm

Hinterland Who's Who

http://www.hww.ca/index_e.asp

Ontario Parks

http://www.campsite24.ca/



Glossary

Adaptations: special features that help living things meet their needs and survive in their habitat. These features can be physical (parts of an animal or plant) and behavioural (the way living things act or respond to their surroundings)

Environment: all of the surroundings and conditions that affect the growth and development of living things

Habitat: the area in which an animal, plant or microorganism lives and finds the nutrients, water, sunlight, shelter, living space and other essentials it needs to survive

Hibernation: a period of time (days, weeks, months) when an animal becomes inactive or dormant, usually during winter. Hibernation allows an animal (like bears) to survive harsh conditions using less energy than when they are active

Mammals: are classified by two shared characteristics. They all feed their young with mammary gland milk, and all have hair



NEST Technical Note TN-017, December 2000

Nuisance Black Bears and What to do With Them

by L.J. Landriault, M.E. Obbard and W.J. Rettie

Black bears are common in parts of Ontario and this invariably leads to interaction with humans, particularly when the animals grow accustomed to finding food in populated areas, around cottages and homes.

This technical note provides valuable information for provincial and local police forces, bear control agents, and municipalities in planning for and dealing with black bears that have become a nuisance to the public. We begin by providing background information on bear ecology and behaviour, and then discuss the methods currently available for solving nuisance bear problems. The note concludes with a discussion of the role of the Ontario Ministry of Natural Resources (MNR) and the legislation and policies that apply to nuisance bear management

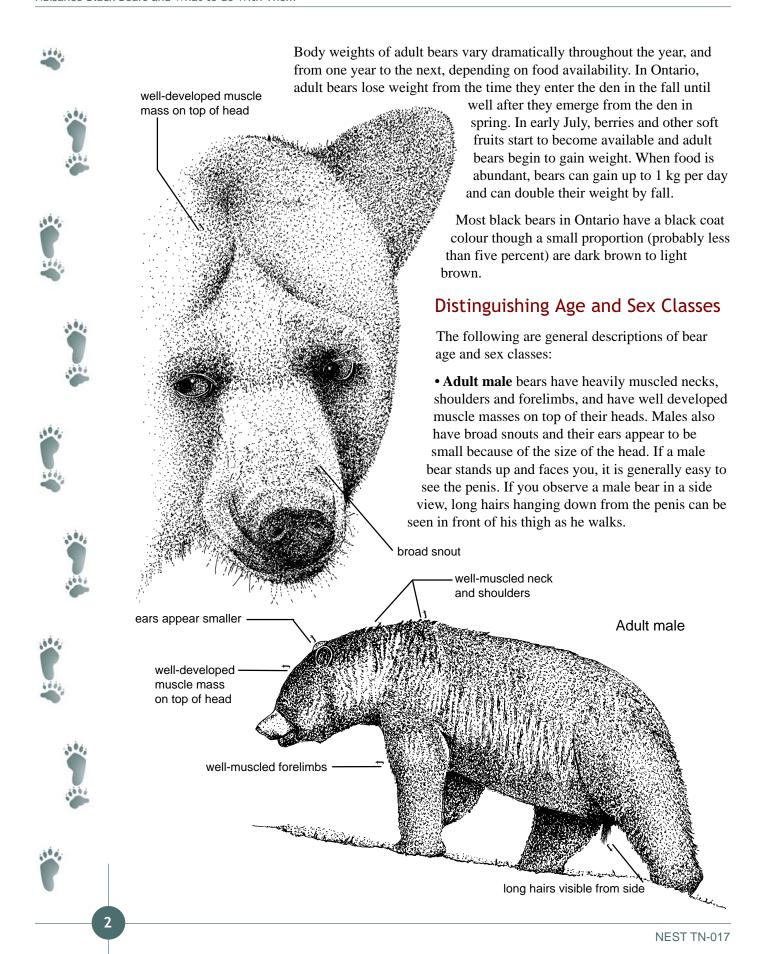
Black Bear Ecology

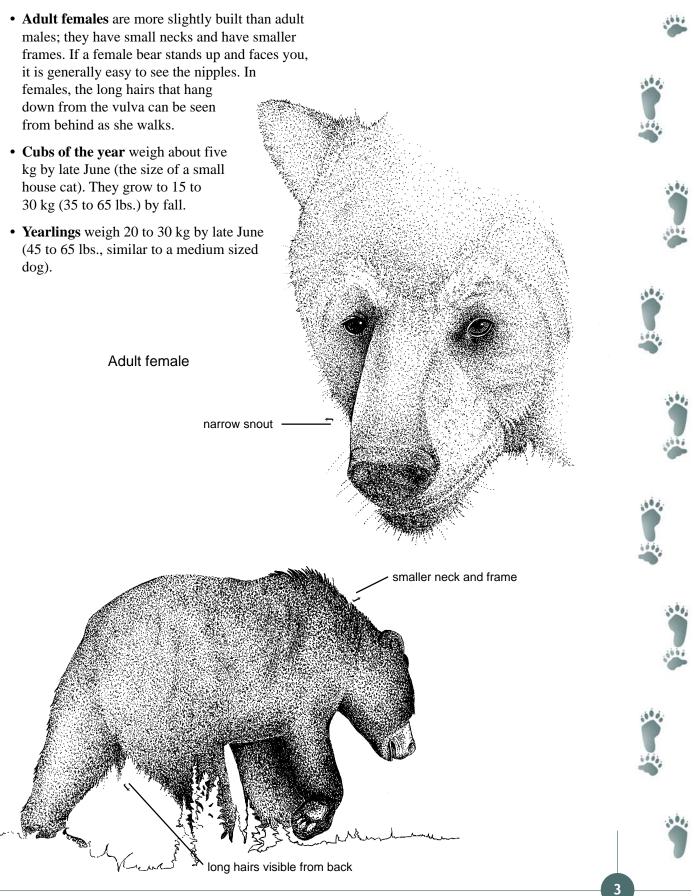
in Ontario. A laminated insert is included as a quick reference for some of the key information.

Description

Black bears are large, heavily boned mammals. Adult males weigh from 120 kg to 300 kg (250 to 650 lbs.), and are 130 to 190 cm (4 to 6 feet) in length from the tip of the nose to the tip of the tail. Adult females are smaller, weighing from 45 to 180 kg (100 to 400 lbs.) and measuring 110 to 170 cm (31/2 to 51/2 feet) length. Adult females reach maximum heighength at about five years of age. Adult ma

measuring 110 to 170 cm (31/2 to 51/2 feet) in length. Adult females reach maximum height and length at about five years of age. Adult males reach their maximum height and length when they are seven or eight years old.







Distribution and Habitat

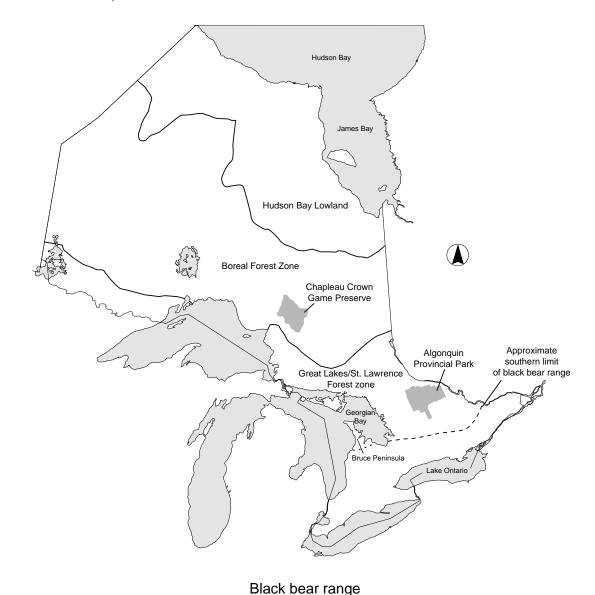


Black bears are found throughout most of Ontario, from close to Lake Ontario in the south to the Hudson Bay coast in the north, though they are more sparsely distributed in the far north. Throughout most of this range, the bears have free access to neighbouring areas, however the bears on the Bruce Peninsula seem to be isolated from the black bears found east of Georgian Bay.



The highest densities of bears in Ontario (more than 60 bears for every 100 square km of land) are found in areas such as the Chapleau Crown Game Preserve and Algonquin Provincial Park, where bears are protected from hunting. By comparison, in parts of the province where bears are hunted, the highest densities recorded are closer to 40 bears per 100 square km. The highest potential population growth rates are reached in the Great Lakes-St. Lawrence forest zone of central Ontario where bears have access to hard mast (acorns and beechnuts) in fall.





Unlike brown bears (grizzly bears) and polar bears, black bears are primarily inhabitants of forested areas where they are best able to meet their needs for cover, food, and security from predators (including other bears).

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Black bears have well developed navigational abilities, though the specific mechanisms that they use are unknown. Bears use their navigational skills in summer and fall when they may migrate more than 100 km to blueberry patches, or to oak and beech stands. Apart from seasonal migrations, home ranges of adult female bears average 15 to 25 square km. Home ranges of adult males can be 10 times the size of female home ranges. Neither sex is believed to be territorial, and the home ranges of many bears can overlap.



Foods Eaten

Bears have a keen sense of smell that enables them to locate food sources, including many that are not obvious to humans. Black bears are omnivores (they eat both plants and animals), but the bulk of their diet is plant material.

Generally, bears are opportunists. Their preferred foods are most abundant in uneven-aged mixed coniferous/deciduous forests that contain numerous shrub species. They consume a variety of food items as they become available throughout the year.

- In spring, bears feed on willow catkins, grasses, dandelions, clover, and aspen leaves. Leaves and flowers are preferred when they are highest in protein content (shortly after leaf burst or flowering), before the cell walls build up lignin and cellulose and become more difficult to digest. Important sources of protein in the spring may include newborn moose calves or deer fawns, or spawning suckers.
- In summer, ant colonies provide major protein sources, as do nests of bumblebees and wasps that are excavated and eaten. Berries and other soft fruits are eaten as they become available throughout the summer. These include fruits of various currants, wild sarsaparilla, dogwoods, strawberries, raspberries, pin and chokecherries, blueberries, and bristly sarsaparilla.
- In fall, hazelnuts, mountain ash, acorns and beechnuts are favoured foods.

Food Availability

Items eaten in spring are generally predictable in timing of availability and do not vary greatly in abundance from one year to another. Nevertheless, many bears lose weight while feeding on these foods. At best, bears will maintain their weight in the spring.

Summer and fall food items vary greatly in timing of availability and in abundance from one year to another. For example, blueberries can vary from less than 10 kg per hectare to more than 1000 kg per hectare. Bears can double their body weight in years when fruits are abundant. It is the abundance of summer and fall foods that has the greatest effect on survival and on the proportion of adult females that reproduce successfully.

The potential for nuisance bear activity increases in years when berry crops fail and the animals search for alternate food sources. The behaviour may also be apparent the following spring when animals emerge from their dens in poor condition. Survival of the current year's cubs can be low following berry crop failure, and few females will produce cubs the following year.







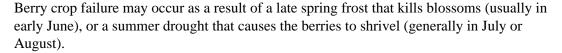








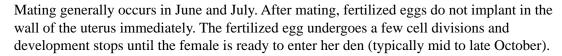




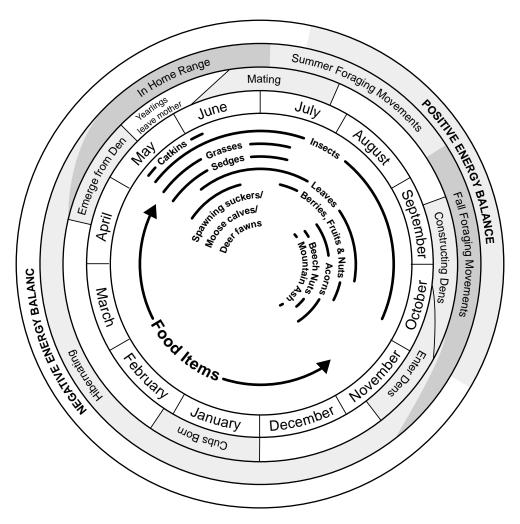


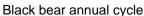
Life History

Mating



At that time, if the female has attained a body weight of at least 70 kg then implantation occurs and the active gestation of about 60 days begins. If pregnant females do not gain enough weight in summer and fall then implantation does not occur and the female's body absorbs the fertilized eggs. Because there is a long delay between conception and active fetal development (known as delayed implantation), the mating season is not focused in a short time period as it is for other wildlife such as moose.



















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Although the mating season may span two months, an individual female is in estrus (ready to ovulate, receptive to males, and able to become pregnant) for fewer than five days. During that five day period a male will consort with her and the pair may mate several times. The male will also attempt to keep other males away from the female.

During the two-month mating season, male black bears travel extensively searching for receptive females and often fight vigorously for mating opportunities. After the breeding season ends, most large males have recent wounds and scars on their heads and elsewhere on the body.

Genetic research conducted as part of the MNR's studies near Chapleau showed that cubs from the same litter may have different fathers, and that males may father cubs in more than one litter in a single year. It is likely that larger, older males are more successful in obtaining mating opportunities.

Birth

Cubs are born while their mother is in her den, generally in early January but occasionally as late as early February. The timing of birth depends upon when the female enters the den. If the female enters the den late (perhaps in response to abundant fall foods) then the cubs are born later.

Newborn cubs weigh 200 to 300 grams, which is less than 1/300th of the mother's weight. In contrast, newborn humans weigh about 1/15th of the mother's weight.

Cubs grow rapidly on milk that has higher fat and protein contents than human or cow's milk. By six weeks of age, cubs weigh 2 to 3 kg (4 to 7 lbs.). By the time the family leaves the den in late April or early May, the cubs weigh 4 to 5 kg (about 10 lbs.).

Litter size varies from one to four cubs in Ontario, with most litters having either two or three cubs (average litter size is 2.4).

Reproductive Output and Offspring Survival

Female black bears in Ontario may produce their first litter when they are five years old, but the average age of first reproduction is about six in central Ontario and seven in northern Ontario.

Cubs stay with their mother throughout the year of birth and den with her the following fall. Females with cubs of the year may become nuisances in late June when the nutritional demands of milk production peak and the berry crop is not yet ripe.

The family group breaks up the following May or June when the cubs (now yearlings) are 17 to 18 months old.

The time at which a female parts from her 18 month-old offspring is the point in her reproductive cycle at which she is in the poorest condition. Her need to gain enough weight to reproduce successfully may make her more likely to become a nuisance at this point.

Following family break-up, a new breeding cycle begins as the adult female prepares to ovulate, and becomes receptive to males again. Therefore, female black bears cannot breed successfully more than once every two years.













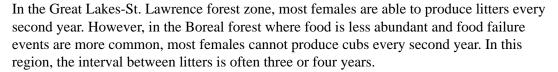






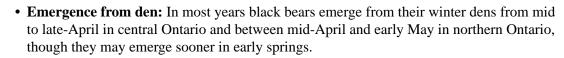






In central Ontario about 75 percent of cubs survive their first year, and about 75 percent of yearlings survive to two years. By comparison, in northern Ontario only about 50 percent of cubs survive to one year old, and about 50 percent of yearlings survive to two years.

Seasonal Patterns



Typically, adult males are the first to emerge, followed by sub-adult males and females, females accompanied by yearlings, and finally, females with cubs of the year.

Adult males often wander considerably at this time and will feed on winter-killed moose and deer.

Family groups, especially females with cubs of the year, often spend a week or longer in the immediate vicinity of the den after emerging in the spring.

In the fall, pregnant females often plan for the following spring by choosing den sites that have large trees (more than 25 cm diameter) within 30 m of the den. These large trees are referred to as 'sanctuary trees' and are typically white pines in central Ontario and white spruce or cedars in northern Ontario. Sanctuary trees function as escape cover for the young cubs in the period after the family emerges from the den, and adult females will cache their cubs in such trees while foraging.

- In early spring, black bears frequent openings in the forest and road edges where new green vegetation first appears. Later they may travel to streams to feed on spawning white suckers. Bears are also frequently found along roadsides where they bend down young trees to strip the new leaves from the branches. After aspen leaves emerge, black bears may be found high in mature trees feeding on the new leaves.
- Early summer: From den emergence to early July adult female black bears have a home range of about 20 to 25 square km. In spring and summer, black bears are generally active from about an hour before sunrise to about an hour after sunset. On hot afternoons bears are often found near water bodies.
- Summer/Early Fall: In northern Ontario, the timing of seasonal movements by black bears is closely linked to the availability of blueberries. If fruits are available early the bears leave their home ranges early and, if fruits ripen late, the bears delay their foraging trips.

Black bears appear to sample the blueberries available in their home range and then move to patches with more berries when fruits are mature. In most years bears begin to leave their spring range in early July and travel in search of blueberry patches. Blueberry patches are often found in regenerating jack pine plantations. Old burns are also visited. Bears studied near Chapleau travelled an average of about 50 km to good blueberry patches, though some females travelled as far as 100 km.













In central Ontario and parts of northwestern Ontario foraging trips by black bears are linked to the availability of acorns or beechnuts. Thus, seasonal movements in central Ontario are more likely to occur in fall than in summer. In years when major food crops fail, black bears wander more widely and can remain away from their spring ranges for three to four months.

- By early September most bears in northern Ontario return to the home range used in spring and early summer and begin to search for a suitable den site. They feed on hazelnuts and mountain ash fruits if available, but also frequent road edges where they feed on fall growth of grasses and clovers.
- By mid-October most bears will have selected a site and be in the process of constructing a den, though they will continue to forage as long as food is available. As the days shorten, their daily cycle of activity slows and they are often not active until mid-morning.

Pregnant females are the first bears to enter their dens, followed by females accompanied by cubs of the year, subadults, and finally adult males.

In most years all bears, except perhaps for adult males, will be in their dens by early November and will not leave their dens until the following spring. Actual timing of entry into dens appears to be influenced by a variety of environmental cues including availability of food, change in day length, and snow cover. Of these, the most important cue is food availability and in years when mountain ash fruit is available in northern Ontario, bears will enter their dens two to three weeks later than in other years.

Interactions with Humans

Interactions between humans and black bears are most likely to occur near what a bear identifies as a food source. The frequency of such encounters depends on a number of factors:

- how much natural food is currently available to bears
- how much natural food was available to bears in the previous summer and fall
- the proportion of the bear population that consists of yearling and two-year-old bears (which will peak one or two years following highly successful reproductive years). Yearlings and two-year-olds wander widely as they disperse from the area where they were born. They are often unwary and naive and are more likely to come into contact with humans.
- whether bears have ready access to human garbage
- availability of agricultural and horticultural crops
- seasonal human behaviour that brings people into contact with bears (e.g. encounters will increase when people begin to arrive at cottages and campgrounds).

In the majority of situations, black bears pose no threat to humans, but there are several factors that may affect perceived or real dangers in those situations.



































At dumps: Many people encounter bears at local dumps or landfills where bears congregate around the high energy food source. In such situations, bears have well developed dominance hierarchies and have few aggressive encounters among themselves other than noisy displays. Bears at dumps seldom pose any threat to humans unless people attempt to feed bears by hand, or approach too closely while trying to photograph animals.

Along Roadsides: Bears encountered along roadsides may quickly become 'panhandlers' if they are fed by passing motorists. In these cases the bears may lose their fear of humans, and people have been bitten or scratched while attempting to feed panhandling bears.

Wilderness situations: People may also encounter bears along trails or in other wilderness situations, but close encounters are most likely to occur near potential food sources.

When a Bear Becomes a Nuisance

Not all black bears encountered by humans are nuisances. We consider a nuisance bear to be one that poses an immediate threat to human safety or one that has developed a pattern of behaviour that makes it a long term risk to safety or property.

In all situations where bears are perceived as a nuisance, the objectives should be to first eliminate risks to human safety and then to minimize the risks to the animal(s). The following section is intended to assist in the decision making process and in the development of response plans.

Responses to Nuisance Bears

Some nuisance bear complaints require direct action and some do not.

No Action Required

Complaints that do not require direct intervention generally include simple sightings, and reports of bears raiding garbage, bird feeders, compost, barbecues, and livestock forage. In these cases, always review the situation, ensure there is no danger to humans, caution the complainant to avoid contact with the animal, and provide advice on how to avoid recurrence of the problem.

Taking no direct action is a viable option for some nuisance bear complaints, particularly those that are simply reported sightings or that are related to a specific attractant (e.g. garbage) in a specific location. In such cases personnel should be prepared to provide an assessment of the situation and to put forward suggestions to assist in remedying the problem. Once an attractant is removed, bears will generally return a couple of times searching for food and will then likely exclude the area from their foraging excursions. Municipalities, businesses, and rural inhabitants that use bear-proof garbage bins will greatly reduce the number of nuisance bear problems, as will urban inhabitants who keep their garbage indoors until scheduled garbage collection.



Bears travel *far for food.*

Bears are highly intelligent. They easily learn where food sources can be found and use their keen sense of smell to seek them out. Bears will travel more than 100 kilometres to a known food source like a berry patch or a stand of beech trees and they will return to these same locations year after year. Bears are always looking for new food sources, including your garbage or the contents of your cooler. Once they determine that food can be found at your house or campsite, they will revisit again and again.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Some things to remember about Ontario's black bears:

- When food crops fail, the potential for human-bear conflicts increases as bears search for alternate food sources
- Bears lose their natural fear of humans through repeated exposure to people in areas where food is intentionally or unintenitonally provided. In such cases, conflict with humans is inevitable. Bears may even become destructive or dangerous
- Such bears are often destroyed because they have become "nuisances" or are perceived as a threat to human safety. They also have a greater risk of getting injured or killed in collisions with vehicles. That is why you should never intentionally feed bears or place food to attract other wildlife (including birds) to your yard for viewing
- Bears quickly learn to associate human residences and campsites with a readily available food source. In fact, most bear problems occur as the result of improperly stored household garbage
- Bears are also attracted to pet food that is left outdoors, bird feeders, grease and food residue left on barbecue grills, composters, fruit trees, sweet corn and grain fields
- Garbage dumps provide a concentration of readily available food that often attracts bears. Bears that feed on garbage in landfills risk physical injury. They also become conditioned to eating garbage at landfills

To learn more about bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country".





Bears are part of our natural heritage.

Black bears are an important part of our ecosystem. They are highly intelligent, powerful and potentially dangerous. Usually, bears avoid and fear humans. They are opportunistic omnivores. In other words, they will eat just about anything people will eat. They will also eat food waste created by humans. Here are some facts to help you better understand how black bears behave, both in the wild and around human habitation.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

A quick look at black bears:

- Black bears live primarily in forested areas and throughout most of Ontario
- They are large, powerful animals. Adult males can weigh between 120-270 kilograms (250-600 pounds). Adult females can weigh between 45-180 kilograms (100-400 pounds)
- Female bears have their first cubs when they are between five and seven years old. Mother bears do not produce cubs every year, they stay with their cubs throughout their year of birth and until the following spring

Hibernation:

- Black bears hibernate for about six months. In this time, they do not eat or drink
- Most black bears in northern Ontario move into their winter dens by mid-October. In central Ontario, bears usually enter their dens by early November
- In most years black bears in northern Ontario emerge from their dens between mid-April and early May. Bears in central Ontario leave their dens from mid to late April

Food:

- Bears feed from mid-April to late fall
- From the time bears come out of hibernation until berry crops are available, bears live off their stored fat and the limited energy provided by fresh spring greens
- Black bears eat a variety of foods. They get most of their food energy by feeding on summer berry crops such as blueberries, strawberries and raspberries, as well as hazel nuts, mountain ash, acorns and beech nuts in the fall
- In late summer and early fall some bears actively feed for 20 hours a day, ingesting as much as 20,000 calories
- Black bears are selective feeders and prefer foods that are accessible, high in energy and easy to digest. They eat both plants and animals, but the bulk of their diet is plant material
- Bears need to fatten up so they can survive winter hibernation and in the case of females, produce and feed young. Bears are instinctively driven to feed. Bears typically double their body weight during the summer and fall

Human-bear conflict:

- If natural foods are not readily available, bears will look for other food sources primarily your garbage
- Once bears learn where to find and get a non-natural food source, they will return again and again

To learn more about bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country".





Bears in your schoolyard. What you can do.

- If you see a bear on or around school property:
 - GO INSIDE the school right away
 - TELL the first adult you see

If you are walking home, or just getting off the school bus and you see a bear:

- Get to the nearest house
- Tell the first adult you see

3 If the bear MOVES TOWARD you:

- SLOWLY BACK AWAY toward the school while MAKING NOISE
- REMOVE and drop your backpack if it contains food
- YELL at the bear to GO AWAY!
- If the bear continues to move toward you, stop and keep shouting at the bear. Keep moving slowly toward the school whenever the bear stops
- DO NOT "play dead"
- DO NOT turn and run
- **GET INSIDE** the school as soon as you can, without running
- TELL the first adult you see

If the bear sees YOU:

- DON'T APPROACH the bear
- SLOWLY BACK AWAY toward the school or house while watching the bear
- DO NOT TURN AND RUN
- TELL the first adult you see



To report bear problems call:

1 866 514-2327 (1 866 514-BEAR)

Help keep bears away:

- Keep your lunch inside the school
- Do not leave food, wrappings or lunch bags in the schoolyard. Take them inside the school to throw away
- Tell your teacher if you see food or garbage left in open bins or in the schoolyard
- Encourage your school to purchase bear-resistant garbage containers
- Encourage nearby residents to be Bear Wise

For more information, visit our website:

ontario.ca/bearwise



Bear Basics

- Black bears are not like friendly cartoon bears. They are smart, curious, powerful and potentially dangerous.
- Adult males can weigh between 120-270 kilograms (250-600 pounds).
- Adult females can weigh between 45-180 kilograms (100-400 pounds).
- Most black bears in Ontario have black fur, but a few can be dark brown to light brown.
- In Ontario, black bears live in forests from Lake Ontario in the south to Hudson Bay in the north.
- Black bears are omnivores. They eat plants, animals and human foods that are easy to get at.
- Black bears feed from the middle of April until late fall.
- In the fall, black bears eat for up to 20 hours a day!
- Black bears eat a variety of foods. They get most of their food energy by feeding on summer berry crops like blueberries, strawberries and raspberries, as well as hazel nuts, mountain ash, acorns and beech nuts in the fall.





- Black bears will travel more than 100 kilometres (km) to find food. If black bears cannot find natural foods, they will travel to find other food, including garbage.
- They can double their body weight during summer and fall getting ready for winter.
- By early November, most black bears move into their dens for the winter.
- Black bears are an important part of our ecosystem.

Black bears are not usually dangerous animals. Admire them. Respect them. But please, don't feed them.



To report bear problems call:

1 866 514-2327 (1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Illustrations by Shayna LaBelle-Beadman from Nuisance black bears and what to do with them, Ontario Ministry of Natural Resources, Northeast Sciences & Technology. TN-017, 2000 Queen's Printer for Ontario.





Be safe in **bear country.**

Black bears live in most parts of Ontario. Chances are wherever you live, visit or spend your leisure time, you will be near bears or bear habitat. For your own personal safety, and for the well being of bears, it is important that you learn about bears and their behaviour. Know how to prevent and handle potential encounters with bears. Be safe, be responsible, be Bear Wise.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Every encounter with a black bear is unique. Experts recommend the following tips and advice. There is no guarantee that what works in one instance will work in another.

Avoid encounters:

- Make noise as you move through wooded areas especially in areas where visibility is restricted or where background noise is high, such as near streams and waterfalls. Singing, whistling or talking will alert bears to your presence, giving them a chance to avoid you
- While outdoors, keep your eyes and ears open:
 - Do not wear music headphones
 - Watch for signs of bear activity, like tracks, claw marks on trees, flipped-over rocks or fresh bear droppings
 - If you are out with a dog, leash it. Uncontrolled, untrained dogs may actually lead a bear to you
 - Pay attention, especially if you are undertaking activities like working, gardening or berry picking. Occasionally scan your surroundings to check for bears. Rise slowly from your crouched position so you don't startle any nearby bears. They may not recognize you as a human when you are in a crouched position

Think about safety:

- Carry and have readily accessible a whistle or an air horn
- Learn how to carry and use bear pepper spray. Know its limitations
- If you are in "back country" consider carrying a long-handled axe

Whenever you spot or encounter a black bear:

- Stop. Do not panic. Remain calm
- Do not try to get closer to the bear for a better look or picture. Never feed a bear
- Do not run, climb a tree or swim
- Quickly assess the situation and try to determine which type of an encounter this might be – sighting, surprise or close encounter
- Always watch the bear. While watching the bear, slowly back away until the bear is out of sight
- If you are near a building or vehicle get inside as a precaution
- If you are berry picking, or enjoying other outdoor activities like hiking, jogging cycling or camping leave the area
- Tell others about bear activity in the area





What to do if **you encounter a bear.**

Knowing what to do if you encounter a bear is being Bear Wise. But some encounters may be more dangerous than others, so it's important to recognize the signs, and know what you can do to protect yourself.

BEARS CAN
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1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Know the language of black bears:

If you by chance encounter a black bear it may:

- Stand on its hind legs to get a better look at you
- Salivate excessively, exhale loudly, and make huffing, moaning, clacking and popping sounds with its mouth, teeth and jaws
- Lower its head with its ears drawn back while facing you
- Charge forward, and/or swat the ground with its paws. This is also known as a bluff charge

Generally, the noisier the bear is, the less dangerous it is provided you don't approach the bear. These are all warning signals bears give to let you know you are too close. When bears are caught off guard, they are stressed, and usually just want to flee.

What to do - Surprise and Close Encounters:

- Remain calm. Do not run. Stand still and talk to the bear in a calm voice
- Arm your pepper spray
- Do not try to get closer to the bear
- If the bear does not get closer to you, slowly back away, talking to the bear in a quiet, monotone voice. Do not scream, turn your back on the bear, run, kneel down or make direct eye contact
- Watch the bear and wait for it to leave
- If the bear does not leave or approaches you, yell and wave your arms to make yourself look bigger. Throw objects, blow a whistle or an air horn. The idea is to persuade the bear to leave
- If you are with others, stay together and act as a group. Make sure the bear has a clear escape route
- If the bear keeps advancing, and is getting close, stand your ground. Use your bear pepper spray (if the bear is within seven metres) or anything else you can find or use to threaten or distract the bear
- Do not run or climb a tree

About attacks:

Black bear attacks are extremely rare. A black bear may attack if:

- It perceives you to be a threat to it, its cubs or it may be defending food. This is a defensive bear that wants more space between you and it. Such attacks are exceedingly rare although a bear's aggressive display may seem to suggest otherwise
- It is a predatory bear. These bears are also very rare. Predatory attacks usually occur in rural or in remote areas. Predatory bears approach silently, and may continue to approach regardless of your attempts to deter them by yelling or throwing rocks

What to do if an encounter results in an attack:

- Use your pepper spray
- Fight back with everything you have
- Do not play dead except in the rare instance when you are sure a mother bear is attacking you in defense of cubs







Keep bears out of your neighbourhood.

You may not even know you are doing it. You could be attracting bears onto your property and into your community. Garbage is the main reason why bears are drawn into communities. Bird and pet food, greasy barbecues and ripe or decaying fruit, berries and vegetables are other invitations to bears to forage for food in your yard. This is not good for you, for your neighbours or for bears.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Problems with bears are usually created by people. By following these tips every spring, summer and fall, you can avoid attracting bears to your property:

Garbage:

- Eliminate odours. Put garbage in containers that have tight fitting lids, and only put it out on the morning of garbage day, not the night before
- Whenever possible, store garbage in bear-resistant containers, or indoors (house, shed, garage). Do not store garbage in plywood boxes, old freezers or vehicles
- Put meat scraps in the freezer until garbage day
- If you do not have curbside pick up, take your garbage to the dump often
- Frequently wash garbage cans and recycle containers and lids with a strong smelling disinfectant

Bird/Pet food:

- Fill bird feeders only through the winter months
- Do not leave pet food outdoors. Feed pets indoors, not outside or in screened in areas or porches

Fruits/Vegetables/Compost:

- Avoid landscaping with trees, shrubs or plants that produce food known to attract bears (some examples include crab apple trees, mountain ash, beech and oak)
- Do not put meat, fish or sweet food (including fruit) in your composter
- Remove vegetables and fallen fruit from the ground
- Pick all ripe fruit from trees and bushes

Smells:

- Be aware that cooking odours can attract bears
- Remove grease and food residue from barbecue grills, including the grease cup underneath, after each use

Learn about bears, their needs and behaviour. Share your knowledge with others. Encourage your neighbours and your community to practice Bear Wise habits. It takes everyone working together to keep bears away.

For more information about bears, see our Fact Sheets "Bears travel far for food" and "Bears are part of our natural heritage".





What to do if you see or encounter a bear **on your property.**

Black bears live mostly in forested areas where they are best able to find food, winter den sites and refuge. With human activity, development and population increasing in what we often call "bear country" or "cottage country" so too are the possibilities for people to see or encounter bears. Knowing what to do if you see a bear on your property is being Bear Wise.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Every encounter with a black bear is unique. The following information is what experts recommend you do. There is no guarantee that what works in one instance will work in another.

Black Bear safety basics:

- Never approach the bear to get a better look
- Do not attempt to feed a bear
- Anticipate and avoid encounters
- Know what to do if you encounter a bear
- Learn about bears and their behaviour
- When outdoors, supervise children and never leave pets unattended

If you spot a black bear:

- Stay calm. Often the bear is simply passing through
- Do not run away. Walk towards a building or vehicle and get inside
- If you have children and pets, bring them inside too
- Once indoors, observe the bear. Did it move on or did it stay on your property? If the bear stayed, what was it doing or eating?
- Encourage the bear to leave. Bang pots and pans, or blow an air horn or whistle. The more stressful a bear's encounter with you, the less likely it is to come back
- If the bear got food (like garbage or bird food), or if the bear tried to get food, you will need to remove or control the item that attracted the bear
- Once the bear leaves, remove the attractant and assess your property for other possible attractants like garbage; dirty barbecue; bird or pet food or fruit or berries from your trees or bushes
- It is possible for a bear to return even though you removed the attractant. Bears do return to places where they have found food. Once the bear does not get food, it will move on
- If you have done everything you can to remove attractants, and the bear persists, call 1-866-514-2327
- If a bear is damaging your property, breaking into your home or threatening your personal safety or that of others, call 911 or your local police
- Alert your neighbours about bear activity, and work together to keep your neighbourhood free from items that attract bears
- Work with your municipality to solve problems before they happen
- If a bear is in a tree, leave it alone. Remove people and dogs from the area. The bear will usually come down and leave when it feels safe

NOTE: If you have shot a bear in defense of your property, you are required by law to immediately report it to your local Ministry of Natural Resources office either in person or by telephone. This requirement applies whether you intend to keep the bear or not. Failure to do so is a violation of the Fish and Wildlife Conservation Act.

To learn more about bear encounters, see our Fact Sheets "Be safe in bear country" and "What to do if you encounter a bear".





How to <u>avoid encounters</u> with black bears while enjoying the outdoors.

Black bears are nothing like friendly cartoon bears. They are smart, curious, powerful and potentially dangerous. And they don't like surprises. If you are a hiker, cyclist, jogger, berry picker, or you plan to spend some time in "bear country", you need to know how bears behave so that you can avoid an encounter.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Bears usually avoid humans. Generally you won't see a bear even if one is close by. Remember, you are a visitor in the bear's home range, so do all you can to avoid encounters.

- Make noise as you move through wooded areas especially in areas where background noise is high, such as near streams and waterfalls. Singing, whistling or talking will alert bears to your presence, giving them a chance to avoid you
- Travel with others if possible
- Be aware of your surroundings by keeping your eyes and ears open:
 - Do not wear music headphones
 - Keep an eye out for signs of bears, such as tracks, claw marks on trees, flipped-over rocks or fresh bear droppings
- Carry and have readily accessible a whistle or an air horn, and bear pepper spray. Know how to use this spray – practise on a stationery object to get the feel for how the canister sprays, and to know its limitations
- Consider carrying a long-handled axe, particularly if you are in "back country"
- Avoid strong fragrances that may cause a bear to be curious; put any food you are carrying in sealed containers in your pack
- If you are out with a dog, control it. Uncontrolled, untrained dogs may actually lead a bear to you
- While berry picking, occasionally scan your surroundings to check for bears, and rise slowly from your crouched position so you don't startle any nearby bears. They may not recognize you as a human when you are in a crouched position





What to do *if you encounter*a black bear while enjoying the outdoors.

Bears usually avoid humans. But if you do encounter one, it's important to remember that they are powerful and potentially dangerous animals. If you are a hiker, cyclist, jogger, berry picker, or anyone who plans to spend some time in "bear country", there are some things you should do if you encounter a bear.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

If you encounter a bear:

- If the bear is not paying any attention to you, slowly and quietly back away while watching the bear to make sure it isn't following you
- Do not approach the bear to get a better look
- If the bear obviously knows you are there, raise your arms to let the bear know you are a human. Make yourself look as big as possible. Speak in a firm but non-threatening voice while looking at the bear and backing away
- Watch the bear to gauge its reaction to you. Generally, the noisier the bear is, the less dangerous it is, providing you don't approach the bear. If a bear huffs, pops its jaw or stomps its paws on the ground, it wants you to back away and give it space
- If a bear closely approaches you, drop any food you are carrying and continue backing up
- If the bear continues to try to approach, stand your ground and be aggressive use your whistle or air horn, yell, stand tall, wave your arms and throw objects
- If a bear keeps advancing and is getting close, continue to stand your ground. Use your bear pepper spray and anything else to threaten or distract the bear bears will often first test to see if it is safe to approach you
- Do **not** run or climb a tree. Bears can run faster and climb better than you
- If the bear makes contact, fight back with everything you have

If you are concerned, contact the local Ministry of Natural Resources office in the area you are going to visit to determine whether there have been any reports of bear encounters or conflicts.





How to avoid encounters while camping.

When enjoying Ontario's campsites, lakes, forests and hiking trails, it's wise to remember that you're in the natural habitat of black bears. Bears have a keen sense of smell, and are attracted by the odour of human food and garbage. To avoid conflicts with bears, prepare ... and be aware.

BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327 (1 866 514-BEAR)

TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What campers can do - know before you go:

- You are responsible for your own safety. Plan your trip with safety in mind. Before you go, learn about black bears; signs of bear activity (like tracks and scat), and how to prevent and handle encounters with bears
- If you are bringing children, always keep an eye on them. When hiking, it is wise to keep children between adults
- Before you go, discuss bears with children. Teach children simple things like making sure they can always see an adult; to never approach a bear or other animals; to never run from a bear and if they see a bear to stay calm and call for help
- If you plan on bringing a dog, you should verify whether there are any rules that prohibit dogs or require them to be on a leash
- All food odours can attract bears. Pack all food, including dog food, with special care. Double or triple bag food to reduce smells. Consider choosing meals that require minimal preparation
- Think about how you will handle your garbage, and how you will keep your campsite clean and odour free. Your safety and that of other campers depends on your diligence to keep the area clean and free from all odours
- Pack a couple of long ropes for hanging your food pack. Practice hanging a pack before you go
- Think about bringing a whistle, air horn, long-handled axe or pepper spray. If you bring pepper spray, know how to use it
- The Ministry of Natural Resources or an Ontario Parks Office can provide general information about recent campsite or route closures due to bear problems. Keep in mind, however, that bear activity can not be predicted
- Once in a while people will encounter black bears. Have a plan in mind if a bear enters your campsite
- People are rarely attacked and/or killed by black bears. Nonetheless, it is important that you be prepared to handle an encounter or an attack

For more information on bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country". For more information on avoiding encounters, see our Fact Sheets "How to avoid encounters with black bears while enjoying the outdoors" and "What to do if you encounter a black bear while enjoying the outdoors".





How to avoid encounters while camping.

When enjoying Ontario's campsites, lakes, forests and hiking trails, it's wise to remember that you're in the natural habitat of black bears. Bears have a keen sense of smell, and are attracted by the odour of human food and garbage. To avoid conflicts with bears, prepare ... and be aware.

BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What campers can do - at your campsite

- If you are going to an Ontario Park or a private campground do follow advice provided by their staff
- No matter where you camp, always pack out all garbage from the backcountry and use bear-resistant containers where available
- Be aware that all food odours and residues can attract bears, so do everything you can to eliminate or reduce odours from yourself, your camp, your clothes and your vehicle
- Never feed or approach a bear
- Clean fish away from your campsite
- After a meal, store leftover food away from your campsite in sealed plastic bags and, if possible, in bear resistant containers
- Keep your site clean. Burn food scraps and fat drippings thoroughly in a fire. Drain dish water away from your camp site
- Never cook, eat or store any food (including snacks), cooking equipment or toiletries in your tent
- If you are sleeping in a tent try to not sleep in clothes you have worn while cooking meals
- Store food so that bears cannot reach it in the trunk of your car or hanging at least 4 metres (13 feet) above the ground and 3 metres from tree limbs or trunks that can support a bear. Fishing tackle, clothes worn when cooking, garbage, toiletries and all snacks should also be hung. If you cannot hang your pack, put it in a canoe or boat that is anchored offshore
- Look for signs of bear activity nearby. Consider moving elsewhere if it appears as though a black bear has been active in the area
- If you plan to camp in remote areas you should take additional precautions to ensure your personal safety

For more information on bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country". For more information on avoiding encounters, see our Fact Sheets "How to avoid encounters with black bears while enjoying the outdoors" and "What to do if you encounter a black bear while enjoying the outdoors".





Don't invite bears to the cottage.

Most problems between black bears and humans occur when bears are attracted by the smell of and rewarded with an easy meal. When bears pick up a scent with their keen noses, they will investigate it – even at your cottage property. If bears are rewarded with feasts of bird food, garbage or pet food, they will return as long as the food source continues to be available. It takes all cottagers working together to eliminate these attractants and to stop bear problems. Here are some tips to help avoid these unwanted visitors.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911.

To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What cottagers can do:

- Fill bird feeders only through the winter months
- Never purposely feed bears (or other wildlife) or try to approach them
- Put garbage in containers that have tight fitting lids, and only put it out on garbage day, not the night before
- Store garbage in a bear-resistant container, secure shed or garage. Do not store garbage in plywood boxes, old freezers or vehicles
- Do not stockpile garbage, take it to the dump frequently
- Never leave garbage behind. If you must leave before garbage day, or if you do not have curbside pick up, take your garbage with you when you go. Take it to the dump or to your home
- Keep meat scraps in the freezer until garbage day
- Do not leave pet food outdoors. Feed pets indoors, not outside or in screened in areas or porches
- Remove grease and food residue from barbecue grills, including the grease cup underneath, after each use
- Do not put meat, fish or sweet food (including fruit) in your composter
- Pick all ripe fruit off trees, and remove vegetables and fallen fruit from the ground
- Encourage your neighbours to practice good Bear Wise habits
- If you rent your cottage, tell your tenants the importance of being Bear Wise
- You are responsible for your own personal safety. Take precautions when you are in the outdoors. Visit *ontario.ca/bears* to learn more

For more information on bear encounters, see our Fact Sheets "How to avoid encounters with black bears while enjoying the outdoors" and "Be safe in bear country".





Before you leave the cottage.

Garbage continues to be the number one reason why bears are drawn onto properties, followed closely by bird seed, suet and nectar. Whether you are closing the cottage for the season, or just between stays, you can take a few simple precautions to avoid problems with bears and other animals too.

BEARS CAN
BE DANGEROUS

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1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

Before you go:

- Remove your garbage. Take it home or drop it off at the dump on your way out
- Use a strong disinfectant to eliminate all odours from garbage and recycling containers and lids
- Never discard cooking grease outside. Instead, place it in a container with a lid, transfer it to a plastic bag, and put in with other properly stored garbage
- Take your barbecue with you when you leave the cottage, or store it in a secure shed. Make sure it is clean
- Do not leave any food or food scraps outdoors for pets or other wildlife
- When packing up, remember to remove all the food from the inside of your cottage a box of pudding or fruit-flavoured dessert mix may be all it takes to attract the bear
- Do not leave scented products outside. Even non-food items like suntan lotion, insect repellent, soap and candles may attract bears
- Close and lock all windows and doors
- If you are away for an extended period of time, have a neighbour or someone in the area occasionally do a walk around to look for signs of a bear visitor or break in. Let the person know where and how to contact you

For more information on bear encounters, see our Fact Sheets "How to avoid encounters with black bears while enjoying the outdoors" and "Be safe in bear country".





Don't invite bears into your community.

Communities must play a vital role in preventing Ontario's black bears from becoming a problem. Applying some basic steps in the way garbage is stored and collected, and how landfill sites are managed is responsible action communities need to take to help keep bears away. Here are some examples of how your community can get started.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What your community can do:

- Get involved in the *Bear Wise* program by contacting your local Ministry of Natural Resources office
- Conduct a bear hazard assessment to identify potential problem areas
- Develop a plan to reduce human-bear conflicts
- Involve and engage all people in your community by inviting them to help or by providing them with information on steps they need to take to reduce bear problems
- Review future development plans relative to greenspace
- Provide a regular garbage collection schedule and consider adopting regulations that prohibit leaving garbage and other food attractants out, except on pickup day
- Provide bear-resistant garbage containers for community parks, streets and transfer sites
- Implement policies and procedures to ensure that residents and businesses are not attracting bears to the community
- Properly manage landfill sites to reduce their attractiveness to bears
- Install electric fencing around landfill sites
- Adopt and enforce garbage management by-laws. For more detailed information and ideas, visit *ontario.ca/bearwise*





Black Bears: **Keep them off the farm.**

As an experienced farmer, you are more likely than most Ontarians to be aware of bears and their behaviour. You know that black bears often approach farm properties to find food, especially when their natural food sources are scarce. There are several things you can do to keep bears away from your farm so that the use of firearms becomes a last resort.

BEARS CAN
BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327 (1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What farmers can do:

- Plant grain or cornfields as far away from the edge of the forest as possible. Leave a swath of open land or pasture between crops and the forest edge
- Pick all ripe fruit off trees and remove vegetables and fallen fruit from the ground
- Use electric fencing around orchards, beehives and vegetable and berry patches, or between grain crops and adjacent forest areas. Electric fencing can also help protect your animals and livestock
- It is best to install electric fences before bears become a problem or as soon as possible if bears are a problem. Electric fencing works best to deter bears if they have not become food-conditioned
- Keep your livestock away from woodlots and bear travel routes
- Ensure that calving areas are located in an open space away from forest cover
- Bears will eat carcasses. Dispose of dead stock according to legal requirements, and in a manner that bears can not access them
- Be alert for bears when working in bear habitat
- Develop a network with your neighbours to help keep each other informed about bears in your area
- For more detailed information, including tips on how to install electric fencing, visit *ontario.ca/bearwise*

Note: If you have shot a bear, you are required by law to immediately report it to your local Ministry of Natural Resources office either in person or by telephone. This requirement applies whether you intend to keep the bear or not. Failure to do so is a violation of the Fish and Wildlife Conservation Act.

To learn more about bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country".





Bears love fast food and leftovers.

Food service operations such as restaurants, fast food establishments and highway snack bars often have substantial amounts of garbage behind their buildings or stored nearby. Black bears are attracted to the smell of human food and garbage, and often come around foraging for an easy meal. It's wise to take steps to prevent this from happening.

BEARS CAN BE DANGEROUS

In an immediate emergency, call your local police or 911. To report bear problems call:

1 866 514-2327

(1 866 514-BEAR) TTY 705 945-7641

For more information, visit our website:

ontario.ca/bearwise

What your food business can do:

- Avoid stockpiling garbage including edible oils
- Use bear-resistant containers wherever possible and secure the lids at all times
- Lock dumpster lids every night or use containers that are self-locking
- Empty garbage containers frequently
- Put garbage out on the morning of collection day, not the night before
- If your business takes its own garbage to the dump, make sure that it is stored behind securely closed doors or in a bearresistant container, and take it to the dump frequently
- Clean your garbage containers frequently and thoroughly. Pay particular attention to storage and disposal of edible oils and greases, and use disinfectant to eliminate odours
- Share this information with your staff
- Encourage customers to use garbage containers, and to not leave scraps or garbage on the ground
- Visit ontario.ca/bearwise for more tips

To learn more about bear encounters, see our Fact Sheets "What to do if you encounter a bear" and "Be safe in bear country".

To learn more about black bears, see our Fact Sheets "Bears travel far for food" and "Bears are part of our natural heritage".

