# **4-H Birdwatching Project**







Activity Guide
March 2012

#### 4-H MOTTO

Learn to do by doing.

4-H PLEDGE

I pledge

My HEAD to clearer thinking, My HEART to greater loyalty, My HANDS to larger service, My HEALTH to better living, For my club, my community and my country.

4-H GRACE

(Tune of Auld Lang Syne)

We thank thee, Lord, far blessings great On this, our own fair land. Teach us to serve thee joyfully, With head, heart, health and hand.

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# 1. Safety First!

Time: 1-2 hours

# What you will learn:

The importance of being safe while birdwatching

### What you need:

Books, websites, members, and leaders.

#### **Instructions:**

Along with the rest of your group, brainstorm some important safety tips that every new birdwatcher should know. Think of some of the safety issues that new birdwatchers might encounter, the risks they could take, and some practical ways to deal with them.

Choose five of the most important safety tips from your list and come up with a catchy and fun method of teaching these tips to new birdwatchers. You could recite a poem, write a song, tell a story from personal experience, act out a play, or make a video!

Produce and present a birdwatching safety lesson to other club projects or a group of parents.

- Talk to people who viewed your lesson. Did they get the main points that you were trying to get across?
- Is there something else you could add to your presentation to improve it?
- How will this activity help you birdwatch more safely?



# 2. Using Binoculars

Time: About 30 minutes to an hour

# What you will learn:

The different parts of a pair of binoculars and how to use them properly

#### What you need:

Your binoculars, the users manual (if your binoculars came with one), how-to websites, books

#### **Instructions:**

How to properly calibrate your binoculars is explained in your manual, so make sure you've already followed these instructions. Then, as a group, take your binoculars outside. Pick a high, non-moving object (like the top of a telephone pole) in the distance, but not too far that you can't walk to it quickly! As a group, everyone should use their binoculars to focus on it. Once everyone has brought the object into sharp focus, put your binoculars down and let them hang from their strap as you walk closer to the object. When you are about halfway to the object, put up your binoculars again and adjust the focus again. Once everyone has done that, move right up the object and focus again. You should be getting used to using your focus ring. Spend the next 30 minutes or so practicing looking at objects at different distances and using the focus knob to bring them into focus quickly. If the moon is visible, look at it too! You could even try spotting birds if there are some around. Don't get discouraged if they fly away before you've had a chance to focus. If you practice on non-moving objects, pretty soon you'll find you will be much quicker than when you started!

Pass your binoculars around with your fellow club members but don't adjust the settings. If you've been at the same distance, looking at the same thing, it might look a little blurry to you. See how different other people's eyes can be?

- Have you used binoculars before? When? Were you at a sporting event? A concert? Stargazing? Tell your club about your experiences using binoculars.
- Which features do all binoculars share?
- Are there some kinds of binoculars that are more comfortable than others?
- How do you adjust the focus?
- How do you clean the lenses?
- Do you know how to adjust the strap?
- Do your binoculars have a protective case?



### 3. Start a Bird Journal

Time: About 30 minutes to an hour

### What you will learn:

Many birdwatchers carry journals with them that they call "field journals," in which they document all the birds they've seen, when and where, and what the birds were doing when they saw them. A field journal can be a valuable tool that will help a lot on your birdwatching journey. You will be able to write down important information and sketches while you're out watching birds, and then bring it back to research online or tell your fellow club members. In your bird journal, you will organize your birding adventures according to date, what birds you saw and heard, and any observations you made about them.

#### What you need:

A small or medium sized notebook, a pencil or pen, your binoculars, and some birds!

#### **Instructions:**

Start by either finding or buying a small or medium-sized notebook. You don't want a big one, something small will do. Find a size that would be comfortable carrying around with you as you birdwatch, maybe even fit in your pocket. If you can find one that is unlined, great, it will give you room to do bird sketches that will be helpful for identifying birds once you get home. You can decorate your bird journal however you'd like. You can paint or colour the cover, or put a big title on it like, "Jessica's Bird Journal" so everyone knows whose it is. Be creative! This is your space to chronicle your birdwatching journey, and you might have it for a long time!

Start by writing about all the birds you have seen to date, and if you haven't seen any, maybe now is the time to get outside and see what you can find! Make careful and neat notes so that you'll be able to transfer them to your record book regularly.

- Why do you think birdwatchers keep regular journals of what they've seen?
- Do you keep a journal of anything else (like your day-to-day life)? Does it help to put your thoughts on paper? Do you ever look back through them and are reminded of a time in your life?
- What are the first birds you've written down in your journal? Where did you see them? What were they doing? Share your discoveries with your club!



# 4. Sketching Birds

**Time:** 1 – 2 hours

### What you will learn:

Now that you have your bird journal ready to go, it's time to learn how to sketch birds! You never know when this skill might come in handy, if you ever need to describe a bird and words just don't cut it, plus it's super fun and artistic! In this activity, you will observe a bird, and using the handy diagram below, you will draw it out and point out its colour patterns. Pretty soon, you'll be sketching birds like a pro!

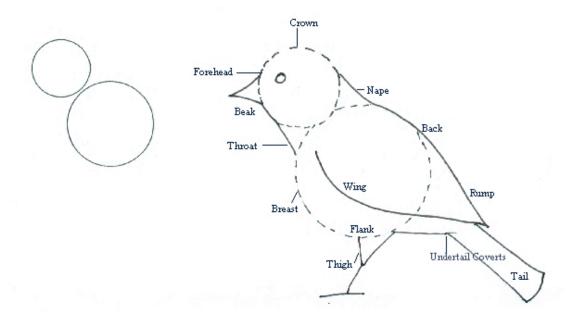
#### What you need:

Your bird journal, binoculars, a pencil, birds, and some patience!

#### **Instructions:**

Go out into your backyard or a local park and sit down in a comfortable place that's within view of some birds. It's probably best to start out with birds that you see often, like sparrows or robins. Observe the birds through your binoculars and make note of their shape and their colours. This is easiest to do if you can get a view of the bird in sunlight rather than shade. Put down your binoculars and open your bird journal. Begin sketching out the bird's shape using the diagram on the next page. Start with the two circles on the left, and then add more detail. Make sure to pay close attention to the size, tail, head, and bill of the bird.

Once you are happy with the way your outline looks, start to draw in the defining features and colours. Does the bird have a crest on its head (like a mohawk)? Does it have brightly coloured wing bars? Draw them in, or better yet, colour them in! Once you're happy with your bird sketch, write the bird's name (if you have identified it using your bird guidebook or the Internet) at the top of the page. Feel free to try another one. Don't forget, practice makes perfect! Share your drawings with your club.



- Was it difficult at first to draw your bird? Did it get easier?
- Was it hard to see the details of the birds colouring through your binoculars?
- Were there any parts of different birds that stuck out in your mind more than others? Which parts?
- Compare your bird drawings: are some better than others? Why?

### 5. Build a Bird Feeder

Time: 30 minutes to an hour

### What you will learn:

One way to begin your birdwatching journey is to bring the birds to you! You can do this while also helping by providing a place for them to find food, and using recycled material is an environmentally friendly way to do it! In this activity, you will learn how to easily build a bird feeder from a used milk carton, what foods are best for the birds you want to attract, and where best to put it up in your yard.

# What you need:

- An empty milk carton (a 4L/gallon jug) with cap
- Thin wire or strong string/twine
- Scissors
- Marker
- Birdseed (research the best type for the birds in your area black oil sunflower seeds are usually a good bet for most seed-eating birds, but you could go with a mix too!

#### Instructions:

Make the following milk-jug bird feeder out of any empty milk jug you have around the house using the following instructions. You may need a parent or supervisor to help you cut and use wire.

#### Directions:

- Clean out the milk carton thoroughly with hot water.
- Outline holes to be cut out on the two sides away from the handle (see the picture below). The holes should be big enough so a bird could come and sit and eat in the feeder, but not too big that the carton becomes unstable.
- Cut out the holes with scissors.
- Remove the cap and wrap the wire or string around the base of the opening. Replace the cap.



- Hang your new milk jug feeder from a tree branch in a secluded area of your yard and fill it with birdseed until it reaches the top of the hole.
- Sit back a safe distance with your binoculars and your bird journal and wait for the local birds to discover the new restaurant in town!

#### Discussion:

- What kind of birdseed did you decide to use?
- Did the birds start to use the feeder right away or did you have to wait awhile?
- What kind of birds were the first to come to your feeder?

Note: Be sure to check your feeder regularly and refill it as needed!

- Were some birds "bullies" and push the smaller birds off of the feeder? Can you identify which birds they were?
- Are you noticing any interest from other animals in the feeder, like squirrels or cats? Would it be a good idea to move the feeder to a safer place?
- If you notice lots of birds frequenting the feeder, do you think it might be a good idea to put up another one?

### 6. What's in a Name?

Time: About an hour

# What you will learn:

In this activity, you will familiarize yourself with both your bird guidebook and some of the birds in it. You will start to learn some of the names and habits of a few birds in your book that strike your fancy, and how to explain them to others. You will also learn how different types of birds are grouped in the book. As you become more familiar with the book, it will feel easy and natural to look up birds in the appropriate sections.

#### What you need:

Your bird guidebook and your bird journal.

#### **Instructions:**

Start by flipping through your bird guidebook. Look at all the different birds there are! Notice how at the beginning of each section of the guidebook there is a general name and description of the type of bird. You'll probably even recognize some of the types of birds like hawks, hummingbirds, woodpeckers, and ducks. But there are probably many types that are new to you as well! They come in all different sizes. shapes, and, of course, colours! Look at their names. Some of them are based on the appearance of the bird, like the vellow-headed blackbird, and some of them are based on habitat preference, like the wood thrush. You will probably find, as you do more research, that every bird's name makes sense in some way. Pick three different kinds of birds that interest you. They can be any bird at all, any bird that grabs your attention. Write your birds' names down along with why you think they have the names they do, where they can be found, where they migrate to (if at all), what they eat, and in what kind of places they live (wetlands, forest, etc.). Be prepared to take your notes to your next meeting. Explain to your club why you chose the birds you chose, why you think they have the name they do, and all the habits you've researched.

- What was it about the birds you chose that made you pick them? Are they local birds? Can you find them in your neighbourhood? Have you ever seen one?
- What kinds of things did you find that bird names are based on?
- What family do your birds belong to? Are they very similar to the other birds in their family? What is different about them?
- Did you pick the same bird as some of your fellow club members? What is it about that bird that appealed to more than one of you?



#### 7. Bird Identification 101

Time: About an hour

# What you will learn:

It's time to start using your guidebook to start identifying birds. This is one of the most fun aspects of birdwatching. You will learn to either see a bird or hear its call and figure out which bird it is. You will be able to share your knowledge with others and describe what a bird looks or sounds like. You can record the birds you have seen and identified in your bird journal.

## What you need:

Your bird guidebook, your bird journal, your binoculars, and the handy questionnaire below.

#### **Instructions:**

There are some questions written below that you can take with you to help you on your way to identifying the birds you see. When you pick out a bird (either by sight or sound), answer the questions below to begin the identification process. Reference your bird guidebook once you have narrowed it down, and you should be able to find your mystery bird! Soon you will have these questions memorized and you'll be able to ask and answer them automatically, share them with friends, and build your bird-sighting list!

# 1) What size is the bird?

a. Is it similar in size to a sparrow, robin, pigeon, crow, or something bigger? Compare it to something you know.

# 2) What shape is the bird's body?

- a. Plump (dove, pigeon)
- b. Slender (mockingbird, catbird)
- c. Long tail (magpie, tanager)
- d. Short tail (duck, warbler)

#### 3) What shape is the bird's bill?

- a. Short, fine, and needle-like (chickadee, warbler)
- b. Short, stout (house sparrow, finch)
- c. Long, sharp-pointed (woodpecker, flicker)
- d. Strong hook at tip (hawk, owl)



# 4) What are the markings or colours on the bird? (See the bird diagram in

Activity 4: Sketching Birds)

- a. Overall body colour
- b. Wing bars
- c. Eye ring or stripe
- d. Crown patch, throat patch, wing patch, rump patch
- e. Stripes, spots on breast
- f. Crest

# 5) How does it fly? What is its flight pattern?

- a. Finches have a steep, roller-coaster flight pattern
- b. Woodpeckers fly in a patter that has slow rises and falls
- c. Hawks soar holding their wings out to the side

# 6) Where do you see the bird?

- a. Is it by the water, either a lake, creek, or the ocean?
- b. Is it in the woods? Are they dense or open woods?
- c. Is it out in open fields?
- d. Is it in your backyard, in a hedge, or foraging on the ground?
- e. Is it in the city?

# 7) What is the bird doing?

- a. Is it feeding, flying, or perching?
- b. Is it in alone or in a flock?
- c. Is it on the ground, in the water, in a bush or tree, or clinging to the bark of a tree?
- d. Is it at a bird feeder? If yes, what is it eating (seeds, suet, fruit, fruit)?
- e. Is it eating "on the wing" (swooping at bugs)?

#### 8) What sounds does the bird make?

- a. Does it sing a pretty song repeatedly?
- b. Is it quiet, making no sounds at all?
- c. Does it only make noise when frightened?
- d. Does it make a high-pitched crying sound?

#### 9) What time of day and year is it?

- a. If it's near sunset, is it an owl?
- b. If it's fall or spring, there is a chance it could be a migrant, a visitor passing through on their way to their summer or winter grounds.

- How many birds did you see and successfully identify?
- Was it very difficult at first?



### 4-H BIRDWATCHING PROJECT - ACTIVITIES

- Were some birds easier to identify than others? Why? Did you know what those birds were before you started this activity?
- Did you have a favourite of the birds you identified today? Which one and why?
- Do you feel more comfortable using your guidebook now?



### 8. A Midwinter Tree for Birds

**Time:** A couple of hours

# What you will learn:

Depending where you are, you may have many or just a few birds that stick around when winter comes. One of them is the very small – yet very hardy – Black-capped Chickadee. This little bird, whose name comes from its distinct call ("chick-a-dee-dee-dee"), is a master at finding food during the cold winter months. It can take a lot of work though, and high-fat food (essential for staying toasty in -20°C) can be hard to come by. That's where you come in! You may find that when bird activity slows down in the winter and there are fewer varieties to see, it's less fun to head out in search of them. Yet this is the time when they can use you the most!

In this activity, you will use a variety of foods to make a bird's midwinter tree. This pretty and tasty snack will bring in local birds and maybe a few from farther afield. Do some research into what else a winter bird might like to snack on, and mix up the recipe for your own unique midwinter tree. Experiment throughout the winter to see what draws the most species!

# What you need:

- Raisins
- An apple
- A kiwifruit
- An orange
- Several pinecones
- A jar of peanut butter
- Some kind of birdseed (black oil sunflower seeds work fine)

- 2 shallow cookie trays
- Popcorn (air-popped only, no butter or salt; don't use microwave popcorn)
- Heavy cotton thread
- A knife
- A needle
- Some twine

#### **Instructions:**

This activity is a little like decorating a Christmas tree, only outside! With the ingredients above, we can make three different kinds of edible decorations that the birds will love. Feel free to try all three or do one or two depending on what you have at home.

<u>Fruit Garland</u>: Start by cutting up the bigger pieces of fruit into smaller pieces (have a parent help if necessary). When you're ready, thread the needle, tie a big knot in the end, and start to string together the raisins, apple, kiwi, and orange slices. Try different colour combinations. When you're finished, set your fruit garland aside and start the next decoration.



Peanut Butter Pinecones: These are usually a hit with most birds. Peanut butter is high in fat and keeps little bird furnaces roaring throughout the winter. Plus, as you probably know, it's tasty! Start by pouring your birdseed into a shallow cookie tray and lay a clean cookie tray beside it. Now loop some twine around the top of your pinecones. These are like the decorative balls on the Christmas tree, so you will need the twine loops to hang them easily. Once you have put string on all your pinecones, it's time to get messy! Start by slathering peanut butter onto the cones. Push the peanut butter deep into the cracks with a spoon or your fingers (the handle end of the spoon works great for smaller spaces). When you're satisfied with the amount of peanut butter on your cones, roll them all over in the birdseed, allowing it to stick to the peanut butter. Now place the rolled cone into the clean cookie tray. Do this with all your cones.

**Popcorn Garland:** This one is a nice contrast to your colourful fruit garland, and it is made in much the same way. Start by air popping some popcorn (remember: no butter or salt). Thread your needle, knot the end, and carefully string the popcorn. This could take several tries to get the pressure right so the popcorn doesn't break. Be patient. The birds will thank you! Once you have a few strands of pretty popcorn garland, you're ready to decorate your midwinter tree!

Head outside with fellow club members, family, or friends. Make it an event! String up your garlands on whichever tree you choose, and hang your peanut butter pinecones. Keep decorating until you're happy with the way your tree looks. Don't forget about the birds that feed on the ground, though, and leave a couple of pinecones and some birdseed on the ground for them too. Now grab a seat near the window and watch the birds feast on your midwinter tree!

- Did you try any other fruits or nuts? Did they have the same effect?
- What have you learned about the winter birds that live in your area? What kind of birds are they? Where do they live? What do they eat? Why don't they migrate?
- Look at the birds that have come to eat at your midwinter tree. Do they look thin? Chubby? Does their plumage look fresh and clean, or old and dirty? Are they in good shape? Why do you think that is? Has it been a cold or warm winter?

# 9. Feather Hunting

Time: 30 minutes to an hour

# What you will learn:

You have learned by now that there are a lot of different kinds of birds, and that means a lot of different kinds of feathers! You can tell a lot from a bird's feather, like what size it is, what colour it is, and what time of year it is. For this activity, you will head out in your yard, in a park, or any natural area and look for feathers. With the help of your trusty bird guidebook, you can then research what birds they may have come from. Soon, you might be able to see a feather on the ground and be able to pinpoint its owner.

Did you know it's illegal to remove and keep bird feathers from the wild? According to the Migratory Bird Act of 1918, all birds are protected (unless specified, as in hunting seasons) under the law. This means you are not allowed to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird ... for the protection of migratory birds ... or any part, nest, or egg of any such bird." Whew, that's a mouthful! What it means is that you should leave all birds, feathers, eggs, and nests where they lay!

## What you need:

Your bird journal and a pencil, your bird guidebook, a measuring tape, a camera (optional).

#### **Instructions:**

With the equipment above, head out into your backyard, a park, or on a nature trail. Keep your eyes peeled for feathers on the ground. This may require some patience. Try gently moving leaves and sticks; you may find feathers stuck in them. Keep at it until you've found a feather. Once you have, you can either take a photo of it with a digital camera or draw a picture of it (like your bird sketching) in your journal. If you draw it, be sure to mark out the different colours and note the size with your measuring tape. If you take a photo, put the measuring tape beside the feather when you take it, that way you'll know how big it is when you get home! Try this with at least two different feathers you find. You can research the birds they may be from right there in your bird guidebook, or do it once you get home. Write down your theories as to what birds they may have come from. Look it up online to see if you are correct. Share your discoveries with your club!

### 4-H BIRDWATCHING PROJECT - ACTIVITIES

# **Discussion:**

There are many different kinds of feathers on a bird, like downy feathers, flight feathers, and tail feathers, to name a few. Which part of the bird do you think your feathers came from?

# 10. The Great Migration

**Time:** 1 – 2 hours

# What you will learn:

Many birds don't stick around in the wintertime. They know that it's warmer and they can find more food if they head to warmer climates. Some birds travel very far distances every spring and fall. This activity will give you an appreciation for where they travel to and just how far they go!

#### What you need:

A big poster-sized world map, several different coloured pieces of yarn or thick string, push pins, and the Internet (for research)

#### **Instructions:**

This is a project that can be done with the whole club. Everyone selects a migratory bird that they would like to research. If you have a small club, everyone can select two or three birds to research. You can select your favourite migratory birds from your bird guidebook. Research what part of the world the bird spends its summer, and how far and where it goes to spend its winter. Write down its migratory habits in your bird journal. At your next club meeting, everyone should have their researched birds and their string ready to go. Each different bird gets a different colour string. Put the world map poster up on the wall and ask everyone to come up one at a time and place a pushpin for the starting point (summer habitat) of their bird and the end point (winter habitat). Now wrap your coloured yarn around one end and then the other. You should have a straight line between your bird's summer and winter habitats. Once everyone has gone, stand back and look at the map. How colourful it is!

- What species is the farthest flier on your map? How far does it go?
- How long do you think it takes for birds to migrate long distances? Did you find that out in your research?
- How do you think birds navigate to their migratory home? Do you think sometimes human structures make it difficult for birds to navigate?
- If you could migrate, where would you go in the winter? Maybe you like the winter too much and you wouldn't decide to go anywhere at all, like the mighty little chickadee!



# 11. Nesting

**Time:** A couple of hours

### What you will learn:

Have you ever watched anyone build a house or an office building? It can take a long time and a lot of people and machines. In cities, you can often see large cranes constructing tall skyscrapers and it can take years before they're finished. Well, though many bird nests are small, it's all relative, right? Nests are often very complex, constructed with a variety of materials, and the birds really only have three things with which to build them: their bill, and two feet! Imagine if you had to build your house with only your mouth and feet. It might take a lot longer than a couple of weeks!

When birds arrive in the spring (if they are migrants), they don't have a lot of time to build their nests. They have to start work right away. In a few short weeks, they have to find the perfect location (hidden away from predators and close to food) and use available materials to build a warm and safe nest that's big enough for their whole family. In this activity you will build your own nest from available material and gain an appreciation for just how hard nest building can be!

# What you need:

A photo of a birds' nest found either on the Internet or taken of a real abandoned nest, and everything you can find in the great outdoors!

#### **Instructions:**

You have two choices for resources for this activity. You can find a photo of a nest online or you can go out and take a photo of an abandoned nest outside. Make sure that the nest is abandoned though, and be very careful not to disturb it. Often, birds will use abandoned nests instead of making new ones, so you never know who might be moving in! Sneak up carefully and take a quick photo. Now you're ready to start nest building!

Look at your photo and try to figure out what the nest is made from. There are a variety of materials birds use, like sticks, mud, leaves, and grass. Make a list and go outside in your backyard or to a local park and try to gather as many of those materials as you can find based on your nest photo. Now it's time to get to work! Start trying to assemble your materials as best you can to match the photo of your nest. Bring your finished nest to your next meeting and share it with your club! If you want, when you're finished with it, place it in a tree roughly the same distance high you saw the one yours is modelled on and make sure it's secure. Maybe a bird will move in!

### 4-H BIRDWATCHING PROJECT - ACTIVITIES

- If you were a bird, would you want to sleep in your handmade nest?
- Which kind of nest did you choose? What made it different from some of your fellow club members' nests?
- How long did it take you until you had a suitable looking replica nest?
- Was it difficult? Did you get frustrated? Do you have a new appreciation for how time consuming it can be for birds to build their nests?

# 12. Field Trip to Visit a Naturalist

Time: Half to a full day

# What you will learn:

There are many people who have dedicated their lives to studying and conserving birds. You can learn a lot from these people, and they are often very happy to share their knowledge with you. In this activity, you will spend some time with a naturalist and learn about what they do, where they work, and the birds they come in contact with.

## What you need:

A naturalist, a few free hours, your bird journal and a pen, your club, and your enthusiasm for birds!

#### Instructions:

As a club, find a nature centre, zoo, or university where there are wildlife experts. Set up a day to come down and learn about what they do. There are wide ranges of places you can visit. Do some research and find out what would interest your club best. You may find wildlife sanctuaries, bird banding stations, museums, nature areas, and many more places that dedicate time to educating the public. Once you have decided on a place, contact them and arrange a good time to visit. When you're there, be sure to be respectful and listen carefully to what is being said. You will probably learn a lot of interesting facts! Think of some questions you can ask. Bring your bird journal so you can write down notes to go over later. Maybe they will even take you birdwatching to see some new species!

- Depending on what sort of place you went to, did you enjoy it?
- Did you learn a lot? What was the coolest thing you learned?
- Do you think that you might like to pursue a career in bird studies? How would you do that?



# 13. Your Provincial Bird

Time: About half an hour

## What you will learn:

Did you know that every province in Canada has its own official bird? In this activity, you will find out what yours is and why!

# What you need:

The Internet, your bird journal and a pen

#### **Instructions:**

Search online for your province's official bird. You will probably find a full list somewhere. Write yours down, including all of its habits, such as what it looks like, where it's found, if it migrates, etc. What about your neighbouring provinces? Bring this research to your next meeting to discuss your findings with your club!

- Have you seen your provincial bird before? When and where?
- Are there any laws that protect this bird? Why or why not?
- Do you think it's a good bird to represent your province? Would you have chosen a different one? If so, which one?
- What about your neighbouring provinces? What are their official birds and why?

# 14. Sing-a-long

**Time:** An hour or two (best done in late spring and early summer)

# What you will learn:

In this activity, you will hone your ear for bird songs. Do you like to sing? You might sing because you enjoy it, but most birds sing because that's how they attract a mate with whom they can raise young. Most of the singers of the bird world are male and they practice their songs from a very young age in order to be perfect when they are old enough to go out looking for a mate. Think of your favourite singers. They probably have pretty nice voices right? Females tend to pick the males that have the prettiest or most complex songs. This activity gets you singing along with the birds, and learning how to spot and identify them simply from their song.

# What you need:

Your bird guidebook, binoculars, websites with birdcalls, your bird journal and a pen, and your ears and voice!

#### **Instructions:**

Head out into any nature area (your backyard or a local park can work for this activity, just be sure there are birds around!), bring your binoculars, your guidebook, and your bird journal. Sit or stand quietly and listen very carefully. Eventually, if you are being very still, you should hear bird songs. Try to pick out a distinct song that is repeating. If you can, try to locate the bird with your binoculars. This can sometimes be frustrating, as bird songs can sound like they are coming from all around.

Don't get discouraged. If you can't find the bird making the song, describe the song in your bird journal. You can listen to songs online when you get home and try to figure out who made it. What you want to do is find a way to describe the song with your own words, or better yet, sing it yourself! The white-throated sparrow's song is often described as sounding like, "Pure, sweet Canada-Canada-Canada". Write the song you hear down in your own words, using real words or just sounds. Remember it for later. Now try this with two other kinds of songs. Be sure to copy them down so you'll be able to repeat them later. Take your notes to your next meeting and share them with your club. Can anyone guess what bird you are just from your song? See if you can guess anyone else's songs!

- How hard is it to sing like a bird? Imagine how long you would have to practice to be as good as a meadowlark or even a robin!
- Why is it hard to put a bird song into words?



### 4-H BIRDWATCHING PROJECT - ACTIVITIES

- Are there times when birds sing for reasons other than attracting a mate? Can you think of any examples?
- Did the birds sing the same song repeatedly or did they mix it up? Did you find birds that made very strange sounds rather than songs? What did they sound like?

# 15. Bird Habitats

Time: An hour or two

### What you will learn:

Birds are everywhere! In fact, there is almost always a type of bird that thrives in nearly every habitat on earth. How cool is that? In this activity, you will learn about different habitats and the birds that thrive there.

## What you need:

Three different kinds of habitats accessible from your home, your binoculars, bird guidebook, and journal and pen.

#### **Instructions:**

Pick three different kinds of habitats that are accessible from your home. They could be woodlands and forests, open fields and farms, city parks and gardens, or lake and ocean beaches. Even your own backyard can work! Go out to several of these habitats for an hour or more and take your binoculars, bird notebook, and bird journal. Write down all the birds you see in the different places, making note of the environmental features that were in the area (pond, rocks, fence posts, etc.) Be sure to include if the birds were low to the ground, at eye level in the trees (if there are trees), or up high in the sky. Also make note of the types of trees, bushes, shrubs, grasses, and other vegetation the birds were in and around (or avoiding). When you get home, read over your notes and see if you have any overlap with species. Share your findings with your club at your next meeting.

- Was there any overlap in species? Did you see the same bird in more than one type of habitat? Why do you think that is?
- Did you see the same birds in the same habitat as some of your fellow club members?
- What do the birds you saw in the same habitat have in common? Think of other birds you've read about in your guidebook that you might see in these same habitats. Why would they belong there?



### 16. Notable Birds

**Time:** An hour or two

### What you will learn:

As humans, we love to categorize things. We like to know what is the biggest and smallest, fastest and slowest, and brightest and dullest of something – "best of" categories, like the Guinness Book of World Records. Well, this is your chance to assemble a Guinness Book of World Records for birds!

# What you need:

Your bird guidebook, the Internet, your bird journal and pen.

#### **Instructions:**

Look in your bird guidebook or go online to find the answers to the questions below. You may even find the answers to some of those questions in your manual! Write down the answers you find and come up with more "best of" categories. At your next club meeting, share your findings. Did everyone get the same answers?

Which bird is the...

Tallest? Heaviest? Fastest runner? Meanest? Shortest? Lightest? Fastest Flver? Most gentle? Longest feathers? Biggest eyes? Slowest runner? Longest flyer? Largest wingspan? Best eyes? Slowest flver?? Eats the most? Smallest Smallest egg? Best talker? Most abundant? Largest egg? Smallest nest? wingspan?

- Largest nest?

- Some of your answers may have been hard to find. Were they subjective (based on your opinion)?
- What makes them the way they are? What role do they play in the ecosystem?
- Every single bird species plays an important role in the ecosystem, no matter
  if it's the "most" something or not. While it's fun to lean about the "most" of
  anything, it's important to realize that ALL birds are vital to the functioning
  of the ecosystem.

# 17. Eat Like a Bird

Time: One day

# What you will learn:

Do you know the saying, "he eats like a bird"? Chances are, you've probably heard it when someone has been referring to a person who doesn't eat very much. You know what? It's not actually a very accurate saying because birds eat a lot for their weight! When you watch a bird, you'll notice how quickly they move, and how constantly vigilant they are on the lookout for predators. It takes a lot of energy to move around that much, not to mention fly! But birds aren't like us; they don't sit down to three big meals a day. They spread their eating out throughout the day, and can take in many hundred mouthfuls! In this activity you'll learn what it feels like to eat like a bird.

#### What you need:

A free day to experiment with what and when you eat, and your regular food. This activity is probably best done on a weekend.

#### **Instructions:**

If you really want to get into this project, you could try eating insects and seeds all day, but I'll bet you'd rather not, right? Well you can still eat like a bird without having to *really* eat like a bird. Instead of eating your usual meals at three times throughout the day, spread your meals out into several dozen little bite-sized meals. Try to eat only a mouthful or two every 15 minutes or so – and don't eat more than that! It sounds like it will be time consuming, but if you plan ahead and bring food with you if you go out, you won't have any problems. At the end of the day, think back to your experience of eating like a bird...maybe you want to incorporate some bird-like eating habits into every day!

- How did you feel when you were eating like a bird? What were your energy levels like? Were you sleepy or energetic?
- Were you hungry all day or did eating every 15 minutes keep your hunger at bay?
- Was it harder to plan what you would be eating all day or did you make a plan to start? Remember that birds don't always know where their food is coming from, so they have to eat while they can!
- What do you think this kind of eating pattern means for a bird? Do all birds eat like this? Are there any that eat much more at one sitting?



### 18. Build Your Own Birdbath

**Time:** A couple of hours

# What you will learn:

You may not always love taking baths, but you have to admit you feel better after you take one, right? Birds take baths too! They bathe to keep their feathers clean and fresh and also to remove parasites (tiny insect pests) from their feathers and body. It's fun to watch birds taking baths; you can tell it feels good! In this activity, you will choose between two different types of birdbaths that you can make at home to help the birds stay clean and cool!

# What you need:

Here are two different kinds of birdbaths you can make from everyday materials. Depending on where you live, you may want one that can stand on the ground or be hung from a tree or your balcony.

# Terra cotta standing birdbath:

- 1 terra cotta plant pot
- 1 terra cotta saucer (for collecting water below the pot)
- Ceramic adhesive with built-in applicator

# Hanging birdbath:

- A dried grapevine wreath
- A plastic plant pot saucer that fits on top of the wreath
- Rustic rope
- Scissors

#### **Instructions:**

Terra cotta standing birdbath: First flip the plant pot over so that the wide end is on the ground. The bottom should be facing up. Now apply a generous amount of the ceramic adhesive to the bottom of the pot. You don't want to be shy with the glue, as it has to hold! Now take the saucer and place it top down (with the lip facing downward, you'll flip the whole thing over and fill the saucer with water when you're finished). Place the plant pot, glue-side down onto the bottom of the saucer. Wiggle the pot once it's in place to



ensure you have good contact between the pot and the saucer. Now leave it to dry for a couple of hours. When it's ready, flip it over and it should look like the photo shown. If you'd like, use outdoor paint to decorate your birdbath. When it's ready



and dry, fill it with about an inch or two (not more) of clean water and some rocks

for birds to perch on, place it in a secluded area, and you're finished! **Hanging birdbath:** Start by cutting three pieces of rope, roughly five feet in length. Knot them all together at both ends, and

place the grapevine wreath in the middle of one end so it hangs with the knot in the middle at the bottom. Now place your plastic tray on top of the wreath. Feel free to decorate your hanging birdbath with natural decorations like leaves or cones. Hang the bath in a safe location with lots of cover. Fill it with about an inch or two (not more) of clean water and sit back with your binoculars!

#### Discussion:

- Which type of birdbath did you choose? Why? Did you try both?
- Discuss with your fellow club members: who sounds like they are having the most success with visiting birds? Why do you think that is?
- What kinds of birds have been coming to your bath?
- Describe what the birds were doing when they were in the bath. If there was more than one bird, did they take turns, or did one bird dominate?

Note: Don't get discouraged if it takes the birds some time to find your birdbath. Birds are very cautious and can be scared away easily, and - just like you - they like it to be warm when they take a bath. So you may have better luck on a warm, sunny day! If you still aren't getting birds, try removing some of the water leaving an inch or less. This will be particularly important after rainy days. Also, remember to change the water every couple of weeks!

# 19. Habitat Building

**Time:** A day or two; this is best done in spring so that it can be enjoyed throughout the summer.

# What you will learn:

You have learned throughout this project that birds have all kinds of habitat requirements, and that while there are many organizations that try to protect bird habitats, humans are responsible for a lot of habitat degradation and destruction. What can *you* do? A lot! You can build a bird sanctuary right in your own backyard! This is a great activity to do as a club. Someone can volunteer the space (consider asking your school), and as a group, the club can plan out the design of the habitat. Consider an achievement day held at your club's new bird sanctuary. Look at all you have done! Just remember to ask permission before starting this activity.

This is a big activity, but with a little research into bird-friendly plants and shrubs, and some careful planning, you can build a habitat in which birds can thrive, complete with edible plants, insect attracting flowers, water for bathing and drinking, and plenty of cover for safety. If it's easy, you can incorporate the feeders and baths you have already created in this project. Once your habitat has been built, you will have a lovely natural space that will attract a variety of birds. Maintain it well and you should see birds all year long!

## What you need:

A space set aside in a club member's backyard (or some other place); shovels and work gloves; bird friendly plants, shrubs, and trees (ask a local greenhouse, nursery, or gardener about native plants to use); and bird feeders and baths.

#### **Instructions:**

All you need to think about when building your bird sanctuary is four basic elements: food, water, shelter, and places to raise young. Start with a pen and paper and using the suggestions below, draw out the best design for your bird sanctuary. You can find examples of designs and helpful hints and tips online, or even ask a local gardener or arborist for advice. Be sure not to fight the natural space you're working with. Use the unique elements of the space to your advantage! Remember that all of the suggestions below can be incorporated into your own yard too!

**Food:** Consider planting shrubs and trees that produce seeds, fruits and nuts throughout the year. For hummingbirds and butterflies, consider nectar-producing plants like flowers. Ask a local greenhouse, nursery, or gardener about suggestions for native plants to use.

<u>Water:</u> Everyone needs water, and birds are no different! In your habitat, consider offering several sources of water, such as a pedestal or a hanging birdbath (like the ones you built in Activity 18), a shallow water dish at ground level, or a small pond with varying depths for both drinking and bathing. You may find dragonflies, frogs, and other aquatic life moving in – this is a great thing because it means that you have a healthy ecosystem! Be sure to check and change the water regularly.

**Shelter:** You have probably noticed from all the birdwatching you've been doing that birds are pretty vigilant animals. Always on the lookout, they tend to stick to the cover of trees, bushes, and thick grass and only go out into the open when necessary, and even then for very short periods. Therefore, shelter will be very important in making your bird sanctuary a comfortable and safe place for birds to frequent. Consider planting native evergreen trees or dense shrubs to provide year-round cover from weather and predators. Deciduous trees provide nice nesting sites. Rocks, logs, and mulch piles offer good cover for small animals like reptiles and insects (which birds like to eat). Try leaving a dead or decaying stump in your space to act as a great source of both food and shelter for many creatures.

<u>Places to raise young:</u> Planting trees at a variety of heights and maintaining a lot of cover will encourage birds to nest in your habitat. Make sure the habitat is safe (and as free of house cats as possible) and you may see one or two species making their home here. Be sure to welcome them with functional nest boxes, which you can build on your own, or buy from most greenhouse and tree nurseries. Provide a lot of nesting material in the form of twigs, leaves, and sticks.

It's important to remember that this new bird sanctuary will need little to no work once it has been built. You will need to refill feeders and water baths, but other than that, your ecosystem should be free to function and grow on its own. Don't worry about cleaning up the space too much. Have you ever seen a forest clear of debris? Many animals thrive in decaying roots and stumps, and it can be a source of nesting material, food, and shelter for birds. Eliminate pesticides in your yard as well; insects are a large part of many birds' diets and they will thank you for it! Great job!

- Was it easy or difficult to build your bird habitat?
- Did you easily find native shrubs and trees? Did you learn about which kinds of plants birds prefer?
- What kinds of features and plants to you add to your bird habitat? Why did you add them? What are you hoping to attract with them?
- Did you notice birds coming to check out your sanctuary right away, or did it take a few days/weeks?



# 20. Extinct and Endangered Birds

**Time:** An hour or two

# What you will learn:

It's a sad reality that there have been some species of birds on earth that we have never seen and will never see again because they have become extinct (meaning there are no more living representatives of the species). Sometimes, humans have a hard time co-existing with animals. There are so many people on earth that we destroy bird habitat to build cities and towns and places to grow food, and we don't always protect the few healthy habitats we have left. Thankfully, there are people who realize this and work very hard to bring people, organizations, and governments together to make sure we don't lose any more species to extinction. There are three main categories for the state of a species in decline: There is *extinct*, for a species that will never be seen again; *endangered*, for those in immediate danger of becoming extinct; and *threatened*, for those species that are likely to become endangered in the future.

# What you need:

The Internet, your bird journal, and pen

#### **Instructions:**

In this activity, you will use the Internet to find one bird species that has gone extinct, one species that is endangered, and another that is threatened. Research these species, answer the questions below, and discuss your findings with your club.

- Where does it live, and what happened or is happening to this species? If it is extinct, why did it go extinct and when?
- What kind of habitat did/does this species live in? How did/do these birds contribute to the ecosystem? What did we lose or what will we lose when/if this species disappears forever?
- Are there any endangered or threatened birds near you? Where do they live? Why are they endangered or threatened?
- What can you do to help this bird species? Are there any programs in existence that protect this species? Are the programs working?

- Why is it important to protect endangered and threatened birds?
- What can you do to protect endangered and threatened birds? What can you do to protect all birds?



# 21. Bird Movie Night

**Time:** However long you want (but at least 90 minutes)!

# What you will learn:

Time to take a movie break! You can learn a lot about birds by watching natural history TV shows or movies, and it's a great way to end your 4-H club year by celebrating all you've learned with a movie night!

## What you need:

One or more bird-related movies or TV shows, a TV and DVD player, a comfy place, and your whole club.

#### **Instructions:**

Choose one or more movies or TV shows from the list below (or find your own). If you have time, choose one from the non-fiction list and one from the fiction list. Gather your whole club together for a fun night of watching bird-related entertainment. You could even plan to make it a potluck and have everyone bring snacks. Have a discussion at the end about how the birds were depicted and what you learned. Make it a fun night; you've earned it!

# Non-Fiction Movie/TV list:

- The BBC series *The Life of Birds* (1998): David Attenborough's comprehensive, fascinating, and richly detailed study of birds, examining the variety of different species and their ways of life.
- *The Wild Parrots of Telegraph Hill* (2003): A homeless musician finds meaning in his life when he starts a friendship with dozens of parrots.
- The March of the Penguins (2005): A look at the annual journey of Emperor penguins as they march single file to their traditional breeding ground.
- *Winged Migration* (2001): A beautiful documentary on the migratory patterns of birds, shot over the course of three years on all seven continents.

# Fiction Movie/TV list:

- The Rescuers Down Under (1977): The RAS agents, Miss Bianca and Bernard, race to Australia to save a boy and a rare golden eagle from a murderous poacher.
- Legend of the Guardians: The Owls of Ga'hoole (2010): When a young owl is abducted by an evil owl army, he must escape with newfound friends to seek out the legendary Guardians to stop the menace.
- *Chicken Run* (2000): A comedy escape drama with a touch of passion set on a sinister York Chicken farm in 1950s England.
- *Happy Feet* (2006): A penguin is born into the world of the Emperor Penguins --who find their soul mates through song -- but cannot sing. What will he do?



#### 4-H BIRDWATCHING PROJECT - ACTIVITIES

- Did you notice a big difference between the ways birds were portrayed in the non-fiction vs. the fiction films? Why do you think that is?
- What did you learn from the non-fiction films? Did you discover more about the world of birds than you learned throughout the course of this project?
- Will you continue birdwatching now that this project has ended? What will you do to help the birds that call your province home?