

K-STATE
Research and Extension



The Birds *Around* You



Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Many Enjoy Bird Watching

Do you know that more people in the United States watch birds for a hobby than go hunting? Well, it's true. Bird watching is something that individuals can do wherever they live. It can be done all seasons of the year, and you don't need a lot of expensive equipment. Presidents, kings, and princes have been bird watchers. Doctors and farmers, salesmen and school teachers, truck drivers and mechanics, all can be bird watchers.

You don't have to travel far; there are birds outside your window right now.

"Bird" was probably one of the first words you learned to say as a baby, and ever since, you've been seeing birds. What you probably don't know, however, is that there are many different kinds of birds. More than 480 different species of birds have been recorded in Kansas. Most of you may know some of these already — the robin, the crow, the bobwhite, the cardinal, and the starling. You know what a sparrow is, but do you know that there are many different species of sparrows besides the familiar house sparrow? And do you know the grackle, the junco, the Harris sparrow, the dickcissel, or the orchard oriole? These are all common Kansas birds.

You also know that birds migrate. But which ones? All of them? And where do the birds go that you only see around your area in the summer or in the winter? People used to think they went to the moon, but you don't think that. But where do they go? Does the robin migrate? Does the crow migrate? Does the cardinal migrate? Why do birds migrate?

You know that ducks are found on water and robins on your lawn or in the park. Are other kinds of birds similarly limited to certain places, what the ecologist calls a habitat?

You will be able to answer these and many more questions, as you attend the meetings and work on the projects outlined in this study manual. So join in and have some fun learning about the birds around you every day.

Meeting No. 1, Visit to a Bird Feeder

Your leader will invite you to come and observe the birds that visit a bird feeder in your neighborhood.

Purposes

1. To begin to learn how to identify birds.
2. To see that birds eat different things and behave differently.
3. To build a bird feeder yourself, record the kinds of birds, and how many of each kind use the feeder.

What to bring

You should bring a pencil, a small notebook, and a field guide. There are several field guides that are excellent resources for Kansas. *The Sibley Field Guide to Birds of Eastern North America* or *The Sibley Field Guide to Birds of Western North America* by David Allen Sibley, published by Alfred A. Knopf, are conveniently sized and good field guides for Kansas. *Birds of North America*, by Kenn Kaufman and published by Houghton Mifflin, is also good and uses photographs rather than paintings. *A Field Guide to the Birds East of the Rockies* by Roger Tory Peterson, published by Houghton Mifflin Co., is also good. You don't want to use a big bird book because later on you'll carry your field guide with you when you go on a field trip.

What to do

Identify each species of bird that comes to the feeder. Look for distinguishing colors and patterns. For example, the male cardinal is bright red all over, the male house sparrow has a black throat patch, and the dark-eyed junco has white feathers on the sides of its tail. These are what bird watchers call field marks and are the important characteristics that help you separate one species from another. Part of the game of bird watching is knowing what to look for. If you tell someone who knows birds that you saw a little brownish bird with streaks on the back, no streaks on its underside, a short bill, and a long tail, he probably would not be able to identify it for you. But if you said it was a small, sparrow-like bird with a rusty-brown cap, two white wing-bars, and with a spot on an otherwise clear breast, he would immediately tell you that you saw an American tree sparrow. You gave all the key field marks.

Identify, if you can, whether the bird you see is a male or a female. The male and female cardinals and house sparrows are quite different. The sexes of the junco are more difficult to separate, while the starling, black-capped chickadee, and tree sparrow are essentially impossible to determine sex because the males and females look alike.

Write down in your notebook the species, whether it was male or female (if you could tell), and if the bird ate a big seed like a sunflower seed or a small seed like a millet seed. Did it eat the seed at the feeder or fly away with it to eat it someplace else? Did it take the seed coat off, or did it eat the seed without "shelling" it? Did any of the birds chase other birds away before they ate? Was the bird doing the chasing always of the same species? Was it always a bigger bird? You will see that the

Identify Birds By:

Color Pattern . . .

Meadowlark:

Yellow Breast
Black V



Shape or Poster . . .

Barn Swallow:

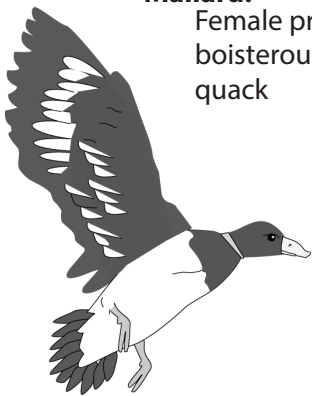
Streamlined Shape
Forked Tail



Song . . .

Mallard:

Female produces
boisterous quack, quack,
quack



birds don't all behave the same way. Did you think they might?

Feeder observations

Species:

What did it eat?

Where did it eat it?

Did it "shell" the seed?

Did it chase other birds?

If it chased other birds, were they of the same species or different species?

Decide on the basis of the materials your leader will provide, what kind of feeder you will build, and where you will put it. If you don't have your own yard, see your leader about putting the feeder in a park or cemetery near where you live. Both are excellent places for birds.

Projects (correlated with woodwork project)

Build a bird feeder of some type. You will attract a greater variety of birds if the feeder not only provides seeds but also beef suet. A pan of water nearby will also attract birds, but you will have to keep adding warm water if it is below freezing outdoors.

Record in your notebook:

1. List the species that visit your feeder. Maybe the rest of your family will help out by keeping occasional watch on the feeder when you are not there. There is a place on the report sheet to list these.
2. Watch the feeder for several half-hour periods, sometimes first thing in the morning, sometimes at midday, and at other times in the evening. On the report sheet you will see that you should record the time of your observation and some facts about the weather. Determine not only the species that come, but how many individuals of each species come. You should be able to conclude from these counts which species is most common and also at what times of the day birds most actively feed. You may also be able to see the influence of weather and snow cover on the use of your feeder, particularly if you choose to watch not only on bright, sunny days, but also on dark, dreary days.
3. Make a small map that indicates where your feeder is placed in relation to your house or other buildings, shrubbery and trees, or water if you have made that available.

Come to your next group meeting with a report of the data you collected at your feeder so you will be able to compare your discoveries with those of

others. Use the data sheet in your member's manual to help you compile your results. The report should include a description as well as a map of the location of the feeder. It should tell what kind of food you provided; for example, sunflower seeds, cracked corn, and beef suet. The report should list, in the place provided, all the species that came to your feeder. The report should also give the results of your half-hour watches at the feeder, the species that came, and their numbers per half-hour period. Make a separate listing for morning, midday, and evening. Also be sure that you indicate the weather conditions for each observation period.

Data sheet for birds using my feeder

1. Description of the location of your feeder.
(Attach your map.)
2. The kinds of foods you provided.
3. List of species using your feeder.
4. Daily use of your feeder.

Meeting No. 2, How to Know the Birds

You will meet with your leader and discuss the results of your observations at your feeder. Then you will talk about the major groups of birds and plan for the next meeting's field trip.

Purposes

1. To determine what species came to the feeders.
2. To decide which species were most abundant.
3. To learn about the major groups of birds.
4. To prepare for a field trip.

What to bring

Bring your report on your bird feeder, your field guide, and any other bird books that you might have at home or that you can borrow from your school or town library. You will need to have some references about the variety of bird life.

What to do

Contribute your feeder observations. You may not have had the most species at your feeder or the largest number of individuals in a half-hour period. The important thing for you to realize when you compare your results to others is the basis for the differences. Your leader will conduct a group discussion to try to bring out the effects of weather, the availability of cover, and the freedom from disturbances on the birds' use of the feeders.

In the following table, the major groups of Kansas birds are listed. Using the books available as references, write out some of the important characteristics of each group and list some of the species of this group that you might expect to find in Kansas. The maps or descriptions of species' ranges in your field guide will help you decide on the Kansas species. If you have a field checklist of Kansas birds, the task will be easier, but try to determine some of the species that will occur around your area.

Become familiar with the names given to the various parts of a bird. This will help you in your identification because the description of a species' appearance will often mention these parts — for example, the white rump of the flicker, the rusty undertail coverts of the catbird, or the brick-red breast of the bluebird.

In planning for the next field trip, it would be helpful, but not necessary, to have a pair of binoculars or field glasses to use in seeing the birds and noting their characteristics. Your leader will be able to answer your questions as to the best kind of glasses to use for field identification.

Projects

Write up the results of your group's experiences with the bird feeders and send it to your town or

	Early morning		Mid-day		Evening	
Time						
Weather						
Sky cover						
Snow/rain						
Inches of Snow						
	Species	number/ half hour	Species	number/ half hour	Species	number/ half hour
Total Species						
Total Individual						

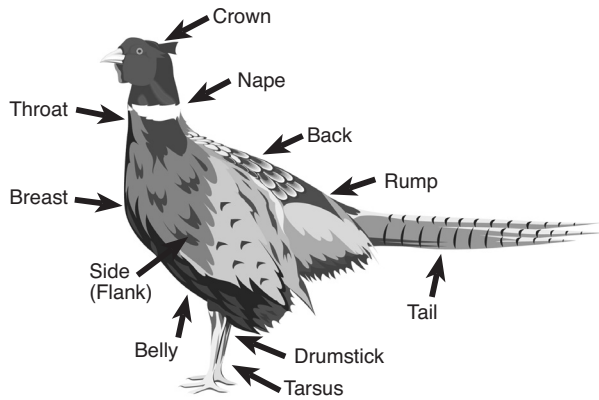
This is a sample. See the record sheets for this project, which provide the space you will need to report what goes on at your feeder.

SAMPLE CHECKLIST*

Group	Characteristics	Kansas Species
Waterfowl: Swans, Geese, Ducks		
Gallinaceous (Chicken-like) Birds		
Grebes		
Doves		
Cuckoos		
Nightjars		
Swifts and Hummingbirds		
Cranes and Rails		
Shorebirds: Plovers, Sandpipers, Gulls, and Terns		
Loons, Cormorants, and Pelicans		
Hérons and Ibis		
Raptors: Vultures, Hawks, Eagles		
Owls		
Kingfishers		
Woodpeckers		
Falcons		
Perching Birds: Flycatchers		
Shrikes		
Vireos		
Jays and Crows		
Larks		
Swallows		
Chickadees		
Nuthatches		
Creepers		
Wrens		
Gnatcatchers and Kinglets		
Thrushes		
Thrashers		
Starlings		
Waxwings		
Pipits		
Finches		
Longspurs		
Sparrows		
Blackbirds, Orioles		
Warblers		
Tanagers, Grosbeaks, Buntings		

**See the project record sheets. They provide the space necessary to report the birds you observe on your field trips.*

Parts of a Bird



county newspaper. Others may find your observations interesting.

Make a scrapbook of bird pictures. For each picture, give the common name and the major group. For example, if you have a picture of a robin, you should identify it as a robin, a thrush. You will probably find pictures of some birds not native to Kansas or that are not even in your field guide. You might be able to guess, however, what group it belongs to even if you don't know its name. You might find the following websites helpful in identifying some of these more exotic species:

Cornel Lab of Ornithology:

www.birds.cornell.edu/

Birds of the World, an online bird book:

carolinabirds.org/

A worthwhile project would be to find a picture of at least one species of each of the groups listed in the table on Page 5.

Meeting No. 3, A Field Trip

You will visit a number of different habitats with your leader and gain experience in identifying birds in the field and associating various species with habitat types.

Purposes

1. To identify as many species of birds as you can.
2. To become familiar with the songs and call notes of several bird species.
3. To recognize that certain species are quite limited to a particular habitat, while other species can be found in a variety of habitats.
4. To see where birds have nested the previous year by looking for nests.

What to bring

You should bring your field notebook and a checklist of Kansas birds if one has been made

available to you. Also, don't forget your pencil and your field guide. If you have access to a pair of binoculars or field glasses, you will find them quite helpful in your bird study. Dress appropriately for the weather.

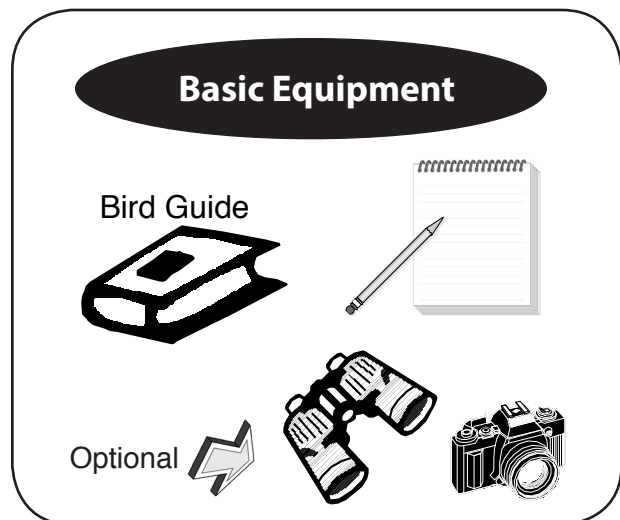
What to do

Keep a list of all the species you identify. A field checklist is helpful for this.

Indicate in your field notebook in what habitats you saw a certain species. For example, downy woodpecker: woods along a creek, cemetery; killdeer: plowed field. Look for last year's bird nests. Locate bird nests and take photos of them. Take a photo of the plants that they are located in as well as a photo of the inside of the nest. Record all the details about the nest including height, type of plant it was in, size of the nest, etc. This information will probably help you identify what bird built the nest. **It is not legal to collect and possess bird nests for most species of birds.** But you may photograph and measure a nest that is not in use.

Projects

Take bird trips by yourself or with friends and prepare a list of the species you see. Perhaps you can see more species than other members of your club. But remember, don't let your imagination run away from you; be sure to identify the bird correctly. You will want to challenge other club members at your next meeting for the characteristics of the birds they identified, so you had better be sure of your identification. If you go out by yourself, only you will know for sure if you have been honest in your identification. For each trip, record the date, the time you were in the field, the weather conditions, and where you went.



Make a display of the photos of bird nests you have located. Label the species that built it, the height it was placed above the ground, and the kind of plant in which it was located.

Meeting No. 4, Migration

You will meet with your leader and discuss the phenomenon of bird migration.

Purposes

1. To determine the migratory status of each of the bird species you have seen so far, identifying each species either as a summer resident, winter resident, permanent resident, or transient.
2. To discuss why birds migrate.
3. To build a nesting box for a particular species of bird.

What to bring

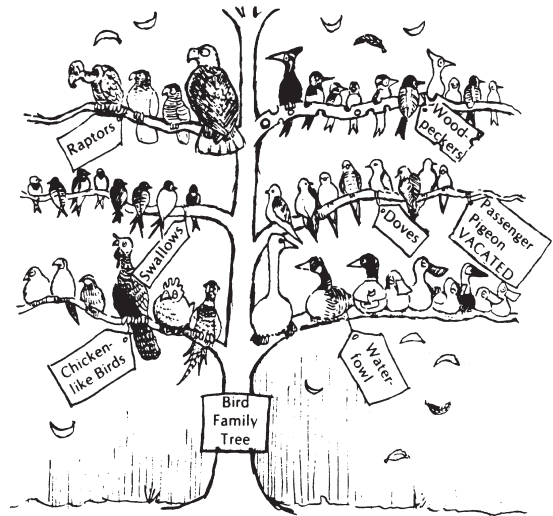
Bring your field notebook that lists the birds you have seen and a pencil. If you have any reference books that provide information on bird migration, bring them too. Considering the habitat around your yard or in a nearby park or cemetery, have some ideas about which species of birds you might attract by building the proper birdhouse.

What to do

You probably realize from your study of birds that the bird population in your area changes. Some birds, like the tree sparrow, have probably left, migrating northward to their nesting grounds in the subarctic. A species that only occurs in your area during the winter months is called a winter resident. Other species, such as the brown thrasher and the dickcissel, are not present in the winter. They arrive in the spring and remain throughout the summer months to nest until they depart southward again in the fall. These are called summer residents. Other species — such as the ducks, geese, and the warblers — often pass through your area in large numbers in the spring and fall, but are usually not found in the winter or summer. These species are transients. Still others are in your area all year long — for example, bluejays, starlings, crows, and cardinals. These are called permanent residents.

Turn to the list of species you have identified at your feeder and on your field trips. Using your field guide and other reference material, decide whether each species is a winter or summer resident, a permanent resident, or a transient. For some species this will be difficult. You might decide that the robin is a summer resident. Yet robins do occur in Kansas during the winter. Are they, therefore,

Learn The Major Groups of Birds



permanent residents? You were correct in calling the robin a summer resident, because the robins you see in the winter months are not the same ones that migrate north to nest in your area. Likewise some species, such as the mallard and American kestrel, are common as transients, but many remain each year to nest in the state as summer residents.

The reference books available at your meeting or in the library, will provide considerable information about why birds migrate. One thing to remember is that the reason for a particular species' migratory behavior is most likely unique to that species. Some species gain an advantage by migrating northward in the spring to avoid competition from other species that remain to nest on the wintering grounds. Other species are highly adapted for breeding in a certain habitat that is only suitable during the summer months. Thus the shorebirds that winter along the Gulf Coast of the United States, summer inland on the arctic tundra. In all cases, however, one can make the generalization that migration is advantageous to a bird by getting it to a particular environment in which the chances for breeding success are highest.

How birds find their way during migration is another area of investigation. Different species navigate by different methods. Evidence suggests that birds use a variety of "cues" to find their way north in the spring and south in the fall. Landmarks such as coastlines and river valleys, the position of the sun during the day, star patterns at night, and even the magnetic field of the Earth are some of the environmental clues that have been verified.

Look over the material your leader has provided and decide what kind of birdhouse you will build.

Other projects you could do

From the list of bird species you have identified, select species of different migratory behavior and map their summer and winter ranges and their migratory pathways. For example, use the Harris's sparrow that winters in Kansas but nests in the subarctic, or the chimney swift that breeds in Kansas but winters in the Amazon Basin of South America, or the upland sandpiper that goes all the way to the pampas of Argentina for the winter. You will need to use reference books to determine the ranges and migratory routes.

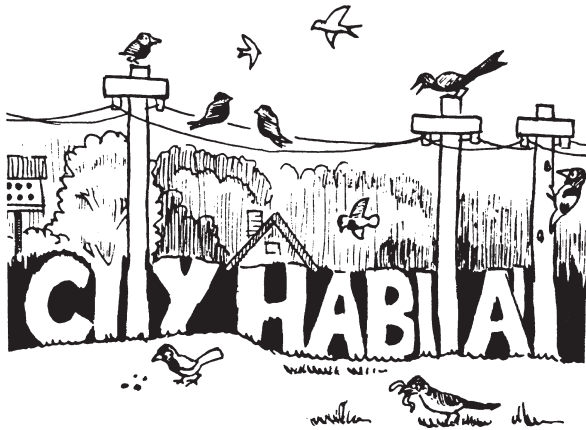
Build a nest box for a particular bird species according to the required specifications.

Meeting No. 5, A Field Trip

What you will do this last meeting is almost the same as what you did for meeting No. 3, except that you should not disturb any bird nests. By now some summer residents are beginning to build this year's nest.

Remember ...

Many Birds Can Be Seen in Town



Projects (your option)

Continue bird watching on your own.

Contact people in your area who watch birds for a hobby. They may be happy to have you go along with them, and you will be able to learn from them. Participate in a Christmas Bird Census if one is conducted near you.

Join the Kansas Ornithological Society. Write:
Chuck Otte
K-State Research and Extension - Geary County
P.O. Box 28
Junction City, KS 66441.

Additional Resources

Check out the County Bird Check List at:

<http://ksbirds.org>

The Birds of Kansas is a helpful resource:

Thompson, et. al, 2011. *Birds of Kansas*. University Press of Kansas, www.kansaspress.ku.edu/thobok.html

Austin, Oliver L., Jr., 1961. *Birds of the World*. Golden Press.

Fisher, J., and R.T. Peterson, *The World of Birds*. Doubleday and Co., Inc., Garden City, N.Y.

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