71

Activity: Counting Birds

Objective: Students will count the birds at bird feeders around the school yard to compare and organize data from these studies.

Background: A wide variety of bird counts are possible. We will introduce two different kinds of counts that are easily adapted to different teaching situations: counts of birds at bird feeders and counts of birds seen at your school yard or along the students' routes as they travel to and from school.

Bird Feeder Counts

Procedure: The first thing you need is a bird feeder. This might be set up outside a classroom window or near the school so students can see the birds while at school. Students may also set-up bird feeders at home and watch them there. It is best to do this activity during the winter when birds are easily attracted to bird feeders.

The actual count of birds at the feeder can be done a number of ways. The usual procedure is to sit quietly near the feeder and count the number of birds that visit during a set period of time. This time period depends on how much time you have available but might be as short

as ten or 15 minutes and as long as an hour. It is most interesting if the students count the number of individuals of each species that they see at one point in time and then again in an hour. In one hour, the same sparrow could fly in and out 50 times and should not be counted as 50 different sparrows. There may be some birds that they can't identify, but this would be a good time to learn new birds. Record these unknown birds as unidentified species.

Be sure to have pencils and paper available so the students can write down what they see. It is easy to lose track if the feeder is busy.

Follow-up: At the end of the count period, make a list of the different kinds of birds the students saw and the number of individuals of each kind.

•Was one species more common than others or were they all present in about equal numbers?

•Does the relative abundance of the different species at the feeder match what appears to be the relative abundance of the different kinds of birds in the area? If it doesn't, could this mean that some birds are more attracted to feeders than others?



•Ask the students what the different kinds of birds ate. Did they all take the same food or did some seem to select different kinds of foods at the feeder? If so, which birds showed this behavior and what did they select?

•If your classroom has a computer with a graphics program, you could enter the data into that program and produce graphs or pie charts of the data.

If the students are counting birds at feeders at school and at home, compare the results.

- •Which feeders had the most birds and which had the fewest?
- •Why do you suppose that happened?
- •Did the feeders have similar food available or did one have different kinds of food? Why might this be important?
- •Which feeder had the most species? Which had the fewest?
- •Are there differences in the habitats around those feeders?
- •What effect did surrounding habitats have on the species you saw?

A bird feeder study becomes much more interesting if you can repeat it at least once or perhaps several times over a period of several weeks or months. If so, try to keep the length of time the students watch the feeder the same and count the birds using the same method. However, the time of day they watch the feeders could be different.

When you finish this count, list the birds seen and the number of each species. Next, compare the different counts to see which had the most or fewest individual birds and which feeders had the most or fewest species of birds. Can the students use these numbers to better understand birds and their habits?

- •Do different species seem to feed at different times of the day?
- •When do the species you saw seem to feed?
- •What time of the day had the most species? The fewest?

•If the weather was different on the days you watched the feeders, what effect did it have on the birds you saw? Why do you suppose that happened?

Outdoor Bird Counts

Procedure: These counts are similar to those at a bird feeder except that they are conducted outdoors. These counts may also be conducted at any time of the year. Again, you need a few simple rules related to how long the count will last and where it will take place.

An easy place to start would be to count the birds on your school property. Have the students map out a route that will cover most of the property. Ask the students to carefully walk that route and at certain spots stop and count the birds that they see for five minutes. Make sure that they have paper and pencils to keep track of what they see. It is most interesting to note all of the different species they see, but if that is not possible, count only the most obvious or most easily identified species.



Follow-up: Once the count has been conducted, make a list of the species the students saw and the number of individuals of each kind.

- Which species was the most common?
- •Was it the species you expected to be most common?
- •If you made a bird feeder count, did both kinds of counts have similar results? If not, can you explain why they were different?

As with bird feeder counts, these counts are much more interesting if they can be done at different times of the year. If so, compare the results from the different seasons.

- •Are some species present throughout the year? Which ones?
- Is one species most abundant throughout the year or does that change?
- •Which time of year has the most species? The fewest?

•Which species migrate? Where did they come from and where are they going? Which species stay with us throughout the year?

- •At what time of year did you find the most birds? Why?
- •Which time of year had the fewest? Why?

Countless other exercises are possible by counting birds at bird feeders around the school area. The attached form for the winter bird feeder survey is an example of a statewide survey that is conducted every winter. You and your students might participate in this annual survey.





Activity: Bird Counts

Objective: Students will investigate and gather data by participating in an annual bird count.

Background: The annual Christmas bird counts are sponsored by the National Audubon Society. The counts involve 1,350 localities throughout the U.S., and more than 40,000 people participate. The counts are held in late December or early January. In each count, participants attempt to count all of the birds they can locate in a circle 15 miles in diameter. Counts are limited to a 24-hour day.

Materials: Binoculars, warm clothes, and friends



Locations of Iowa Christmas Bird Counts, (1995-96)

Procedure: Contact your local Audubon Society or other bird club for the date and place of the annual Chritmas bird count. It's a fun and educational way to get students outside to learn about the birds in the winter.

Breeding Bird Counts

Breeding Bird Surveys were started in 1966 and are based on randomly-selected routes following public roads, along which a volunteer observes and records birds seen or heard. Each route is 24.5 miles long and consists of 50 three-minute stops. These same routes are censused in early summer each year. The results provide our most reliable information on breeding populations. In recent years, this data has shown that populations of some Iowa species, including some neotropical migrants, have declined.



Breeding Bird Routes in Iowa