

# BirdSleuth INVESTIGATOR 2012

Science reports  
and original artwork  
for and by students





## Editor's Note

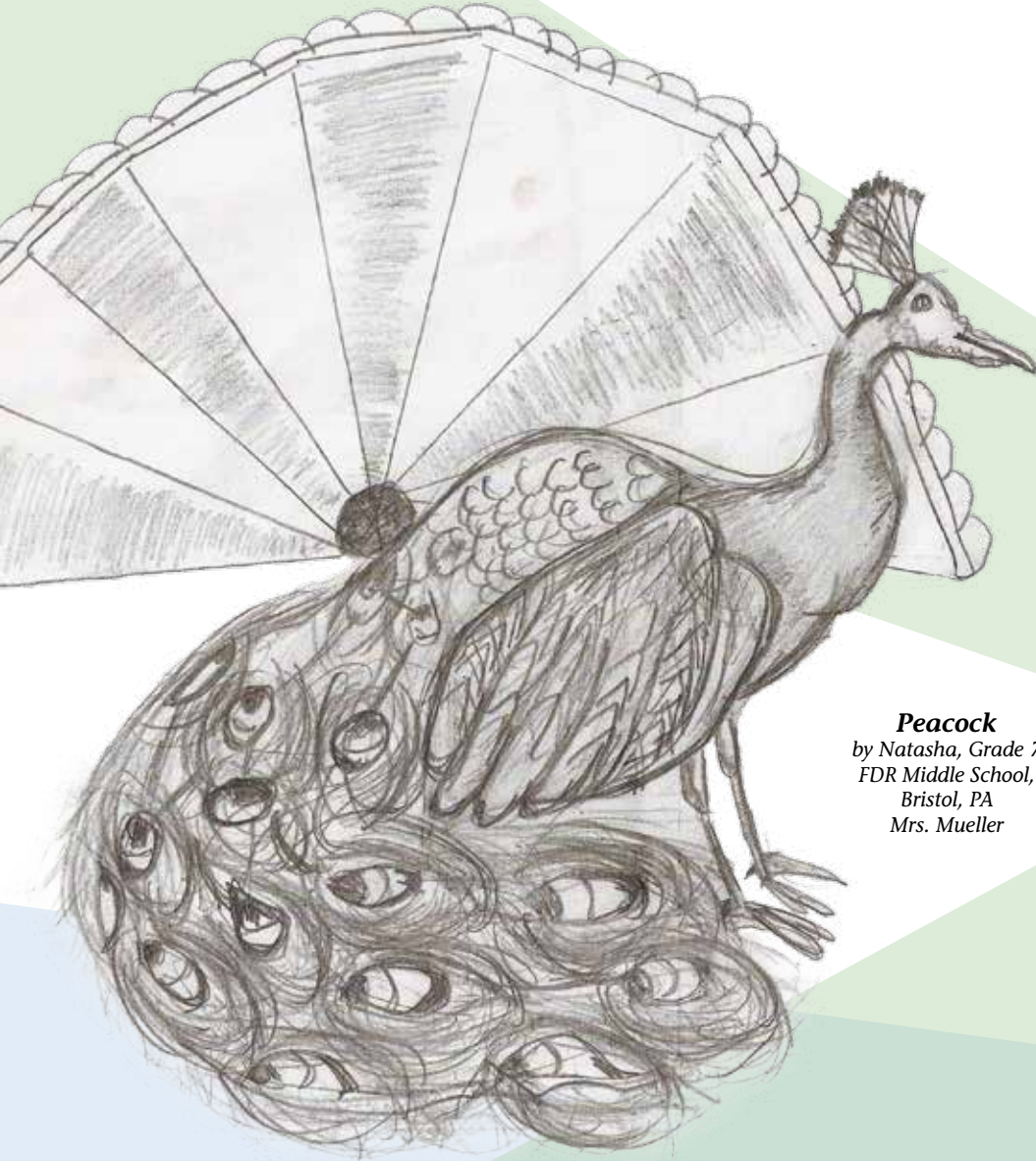
We hope you'll enjoy the new look and increased availability of *BirdSleuth Investigator*, (formerly, Classroom BirdScope). From the very first issue, the Cornell Lab's student magazine has been publishing the scientific endeavors of curious children as they explore the natural world around them through birds. *BirdSleuth Investigator* brings you the same amazing student work you expect but with brighter colors, sharper looking graphs and artwork, and free access to a printable online version on the new BirdSleuth website ([www.birdsleuth.org](http://www.birdsleuth.org))!

As we meet teachers across the country, we carefully listen to them explain the situations that make it difficult for them to include outdoor science learning the school day. We also understand the challenges that af-

terschool staff face in connecting S.T.E.M. activities to daytime learning while still giving kids a chance to relax and have fun. Please feel free to contact me anytime about how we can help you use our resources in your classroom or program. The team behind BirdSleuth is here to provide you with the educational materials and professional development opportunities you need to be successful with your students.

Sincerely,

Lisa DeRado  
Editor, BirdSleuth Investigator 2012  
K-12 Education Resources Coordinator  
email: [birdsleuth@cornell.edu](mailto:birdsleuth@cornell.edu)



### **Peacock**

by Natasha, Grade 7  
FDR Middle School,  
Bristol, PA  
Mrs. Mueller

## Are You More Likely to See a Spotted Towhee if the Cloud Cover is Above 50%?

by Zoë, Grade 8  
Tualatin Valley Academy  
Hillsboro, OR  
Mr. Kahler



**Mourning Dove**  
by Mariela, Grade 7  
Tualatin Valley Academy  
Hillsboro, OR  
Mr. Kahler

### Purpose

For my bird report I asked the question: am I more likely to see a Spotted Towhee if the cloud cover is above 50%? I think that if the cloud cover is above 50%, then you are more likely to see a Spotted Towhee. However, researchers say that birds tend to not like precipitation or being out when it is rainy. I wonder if the cloud cover even affects the Spotted Towhee, or birds in general. I have not noticed cloud cover to have much of an effect from just briefly looking, but with further investigation that will be challenged.

Male Spotted Towhees have a black tail, a white breast with burnt orange side stripes, a black beak, a black back with white spots, and a black head. However, their most striking field mark to me is their red eyes. They are usually found in a habitat consisting of open space with shrubs and thick undergrowth, but they can also be seen in backyards and forest edges like most other commonly seen birds.

### Procedure

When I went to the bird blind to collect data for my report I needed the following materials:

- Pencil
- Bird binder
- Binoculars

I collected data on the birds we saw at the bird blind at our school. We usually go there once or twice a week. I also gathered weather data

such as the temperature, cloud cover, dew point and wet bulb from the WeatherBug weather station on top of our school. During our bird counts, I recorded the number of Spotted Towhees at the bird blind. I kept an eye on what the cloud cover was, and how it is affecting the amount of Spotted Towhees seen, and how they are acting. These two variables seem to have an effect on each other. I compared the counts I got with the counts of my classmates.

### Data Table and Graph

Date	Cloud Cover Percentage	Spotted Towhees seen
11/30/2011	100	4
12/06/2011	100	3
12/08/2011	0	2
12/14/2011	95	2
01/02/2012	75	1
01/10/2012	100	1
01/17/2012	100	2
01/23/2012	100	2
02/02/2012	25	2
02/08/2012	100	0
02/14/2012	45	1
02/16/2012	100	2

### Results and Analysis

From making my graph and data table I can see that the cloud cover doesn't really affect the amount of Spotted Towhees seen as much as migration. The amount of Spotted Towhees seen fluctuates, but mainly declines as the season goes on.

The peak date was the very first one recorded, at four birds with 100% cloud cover. Seven out of twelve times the cloud cover was 100%. Also, the cloud cover stayed above 50% all but three times it dropped to 25%, 0%, and 45%. With this said, the number of Spotted Towhees seen in one day ranges from four to zero (the highest and lowest numbers seen). Over all there is no correlation to be seen between the two factors.

### Conclusion

I conclude from my data that the cloud cover percentage does not affect the amount of Spotted Towhees seen. Therefore, my hypothesis has been proven incorrect, and my problem statement answered. I feel that if we would have gone out to the bird blind more often to watch the birds and record their appearances and activity, then I would have had clearer results to base my conclusion on. Also, if we would have looked along Downy Creek, the stream along the bird blinds banks, we might have seen more birds to add to our lists.

My data randomly fluctuates and has no pattern whatsoever. To find more reasons as to why the cloud cover did not affect the amount of Spotted Towhees seen, one could change other contributing variables, such as the bird feed. Maybe the birds, specifically Spotted Towhees, are attracted more to one bird feed over another.



**Eagle**  
by Sophie, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

## Bird Seed Study— Expensive Seed vs. Cheap Mix

by Joshua and Brayden, Grade 7  
Wilson Middle School  
Wilson, NY  
Mrs. McIntosh

### Introduction

Birds are really neat the way they act and how smart they are. They are able to open the shell and get to the yummy seed to eat. Birds can also do many other things like identify who is who among all the birds around, and they know when something bad is happening and will call for help (*Curious About Crows*, 2012 as seen in the bibliography). We noticed birds eating seeds at our bird feeders so we decided to set up an experiment to see what kind of bird feed the birds at our feeders liked to eat the most of. We have seen birds eat both corn and different kinds of seeds, so we decided to see which of these types of food were preferred by our birds.

### Question

Will birds prefer to eat more expensive corn seed over a cheap mix of seeds if given the choice?

### Hypothesis

If we gave birds a choice between expensive seed and cheap seed, then the birds would eat more of the expensive seed and less of the cheap seed.

### Variables

**Independent:** The type of bird seed (expensive corn seed or cheap mixed seed).

**Dependent:** The amount of bird seed (measured by the number of cups).

### Materials

In order to do our experiment we determined that we would need the following materials:

- Two cardboard boxes
- Expensive bird seed
- A Tree
- Cheap bird seed
- String
- Two bird feeders

### Methods

1. We cut a rectangular hole in two cardboard boxes about the size of a shoe box.
2. Then we tied string to the cardboard boxes and hung them from a tree so it was like two bird houses hanging from the same tree. We hung two identical bird feeders from the same tree. Then we filled one box with an expensive corn seed and the other with a cheap mix of seed that did not include the expensive corn seeds. The box feeders were hung from the tree from 3 PM to 6 PM every day for one week with 2 cups of seed in each boxfeeder each feeder.
3. Each day we would make sure each box began with 2 cups of seed. At 6 PM, we would check the feeders and measure the amount of seed remaining in the feeder and figure out how much seed was eaten by subtracting the amount of seed left in the box by the starting 2 cups.

### Results and Analysis

The first two days were kind of slow and there was very little or no activity at the feeders so no measurable amount of seed was eaten from either feeder. On the third day birds had found the feeders and began eating some of the seed.

On the third day, birds began to eat more of the expensive seed in Box 1, than the cheap mix eaten

out of Box 2. The total amount eaten from Box 1 was much more than the total amount eaten out of Box 2. So on a daily basis and overall, birds ate more seed from Box 1 than they did from Box 2.

### Data Table

Date	Feed Eaten Feeder Box 1 (cups)	Feed Eaten Feeder Box 2 (cups)
3/15/2012	0	0
3/16/2012	0	0
3/17/2012	0.333	0.2
3/18/2012	0.5	0.25
3/19/2012	1	0.333
3/20/2012	0.333	0.25
3/21/2012	0.5	0.25
3/22/2012	1	0.5
<b>TOTAL:</b>	<b>3.666 cups</b>	<b>1.783 cups</b>

### Conclusion

Over a little more than one week, we were able to measure the amount of seed eaten by birds at two feeders hanging from the same tree. One feeder had an expensive corn seed (Feeder Box 1), and the other feeder had a cheap mix of other seeds (Feeder Box 2). Once the birds found the feeders, it became obvious to us that the birds did in fact seem to eat more of the expensive corn seed than they ate the cheap mix.

During the experiment times, birds ate more than twice as much of the expensive corn seed than they ate of the cheap mix. Since the birds had a choice between Feeder Box 1 and Feeder Box 2 we believe this supports the hypothesis that if we give birds a choice between expensive seed and cheap seed, then the birds will eat more of the expensive seed and less of the cheap seed. We learned through further research that people actually study which seed wild birds like best. We also noticed that corn is not one of their recommendations (*National Bird Feeding Society*, 2009-2011).

(cont.'d on page 5)



(cont.'d from page 4)

## Bibliography

- *Curious About Crows*. (2012). The Cornell Lab of Ornithology. Exploring and Conserving Nature. Available from <http://www.birds.cornell.edu/page.aspx?pid=1998&ampac=ac>
- *What Bird Seed Do Birds Like Best*. (2009-2011). National Bird Feeding Society. Available from <http://www.birdfeeding.org/best-backyard-bird-feeding-practices/bird-seed-and-other-bird-food.html>

## Where Do Birds Like Their Feeders?

by Teagen, Grade 4  
Stuart Island School  
Stuart Island, WA  
Cheryl Opalski

### Question

What do birds prefer: A feeder in the open or a feeder near the bushes?

### Hypothesis

My hypothesis is that the feeder closest to the trees and bushes will attract more birds than the one out in the open because birds have protection in the trees.

### Variables

**Controlled** (things kept the same):

Two bird feeders that are exactly the same; both have mixed seed and suet.

**Changed** (one thing I'm changing): One feeder in the open, one feeder near trees and bushes.

### Materials

- Two hopper and suet feeders
- Binoculars
- Mixed seed and suet
- Two posts for feeders
- Data chart/bird book

### Procedure

1. Put two bird feeders four feet off the ground: one in the open and one near trees and bushes.
2. Filled feeders with same amount of seed.
3. Observed feeders four times a day for twenty school days.
4. Recorded how many birds and what kind of birds came to each feeder.
5. Added feed as needed and recorded amount.

### Results and Analysis

Between November 3, 2011 and December 2, 2011, I made a total of 80 observations per feeder.

At my open feeder, birds were present in 20 of the observations and not present in 60 of the observations. I saw a total of 66 birds across my 80 bird counts at my open feeder. The most birds I saw at one time was 10 birds.

At my bush feeder, birds were present in 63 of the observations and not present in 17 observations. I saw a total of 267 birds in 80 observations at my bush feeder. At my bush feeder the most birds I saw at one time was 16 birds.

### Data Graphs

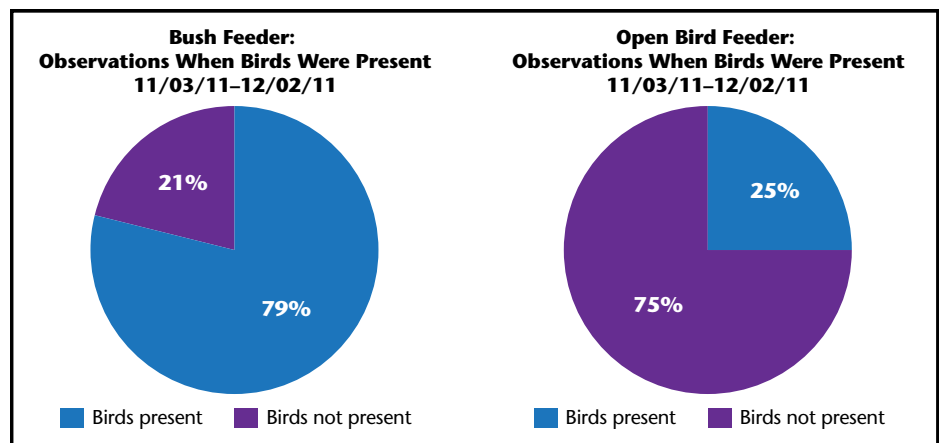
We also noticed that some days my suet had rapidly disappeared over night. We think some kind of mammal was eating it, so we stopped putting it out.



### Conclusion

According to my data, my hypothesis was correct. I predicted that the bush feeder would have more birds than the open feeder. Birds were present at my bush feeder for 79% of the observations, and not present for 21% of the observations. At my open feeder, 25% of the time birds were present, and 75% of the time birds were not present.

But my study would have to be repeated to make sure my hypothesis is true. Some other questions that this study made me think of are: How many birds would come to a feeder near water? Would more birds come to a different kind of feeder? Would more birds be at my feeder if the temperature changed? To answer my questions, I would have to do additional research.



## Do Birds Prefer Fruit or Seeds?

by Alexandra, Grade 7  
St. Mark Catholic School  
Boyton Beach, FL  
Mrs. Eubanks

### Abstract

All different kinds of birds eat all different kinds of foods. I wanted to find out what type of foods the birds in my area prefer. So I put up two bird feeders: one filled with two cups of strawberries and one filled with two cups of seeds. I watched and measured the amount eaten by the birds for 8 days. I found out that the birds prefer the seeds over the strawberries.

### Introduction

I noticed whenever somebody gets a bird feeder they fill it with seeds. I thought that maybe birds get sick of seeds and would like to eat something better. That's when I thought maybe they would like fruit and I wondered: Do birds prefer seeds or fruit? Then I had to think of what type of food I should feed the birds and came up with strawberries.

### Question

If I have one bird feeder filled with seeds and one bird feeder filled with fruit, which would the birds eat more of?

### Hypothesis

If I have one bird feeder filled with seeds and one bird feeder filled with fruit, I think that the birds would like to eat the fruit (strawberries) because it's something new. Birds probably aren't used to the taste so they may like it better than seeds.

**Alternative hypothesis:** If I have one bird feeder filled with seeds and one bird feeder filled with



**Northern Cardinal**  
by Ramon, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Steinberger

fruit, I think that more birds will like the seeds.

**Null hypothesis:** If I have one bird feeder filled with seeds and one bird feeder filled with fruit, I think that the birds won't care what they eat because they just want food.

### Variables

**Independent:** The seeds and the fruit (strawberries).

**Dependent:** The amount of food eaten by the birds.

### Controls:

1. Where the feeders are hung.
2. The type of bird feeders.
3. The amount of food put in.
4. The time the feeders are checked.

### Materials

- 2 cups of fruit (Strawberries)
- 2 cups of mixed bird seeds
- 2 bird feeders

### Methods

Every day I put two cups of strawberries into one bird feeder and two cups of seeds into the other. Every day at 7:00 I went outside and measured the amount eaten by the birds. I hung the bird feeders in the same place. That way, it couldn't affect my data. I also have identical feeders that way the feeder couldn't affect my data either.

## Results and Analysis

Date	Amount of Strawberries Eaten	Amount of Mixed Seeds Eaten
Day 1	A little less than a cup	All
Day 2	None	All
Day 3	1 cup	1 ½ cups
Day 4	1 cup	All
Day 5	1 ½ cups	1 ½ cups
Day 6	None	All
Day 7	A little less than a cup	All
Day 8	½ cup	All

According to my data table, the birds had eaten all the seeds for 6 of the 8 days while the strawberries were barely eaten. They didn't eat any of the strawberries on two days and when they did eat them it wasn't much. Day 5 was the only day the numbers were even.

### Conclusion

My data did not support my hypothesis because the birds ate more of the seeds than the strawberries. Most of the seeds were eaten each day. I thought they would like the strawberries better because they are sweet, but maybe they didn't like them much because they are too sweet. The only problem I had with my experiment was the rain. Sometimes the rain would fall so heavy it would cause my bird feeder to fall.

**Harpy Eagle**  
by Justin, Grade 3  
Perrin Woods Elementary  
Springfield, OH  
Ms. Kunkle



## How Does the Shape and Size of a Bird Feeder Affect Seed Consumption?

by Michael and Beau, Grade 7  
Bethany School  
Cincinnati, OH  
Ms. Mellea

### Question

Does the shape and size of a feeder affect the eating habits of birds?

### Hypothesis

The medium sized gazebo shaped Ecozebo feeder is going to have the most bird seed consumption.

### Variables

**Independent:** bird feeder's shape and size.

**Dependent:** amount of bird food eaten.

**Controlled:** type of food, location, amount of food.

### Materials



- Three bird feeders (different sizes and shapes)
- Sunflower seeds
- Scale

### Procedure

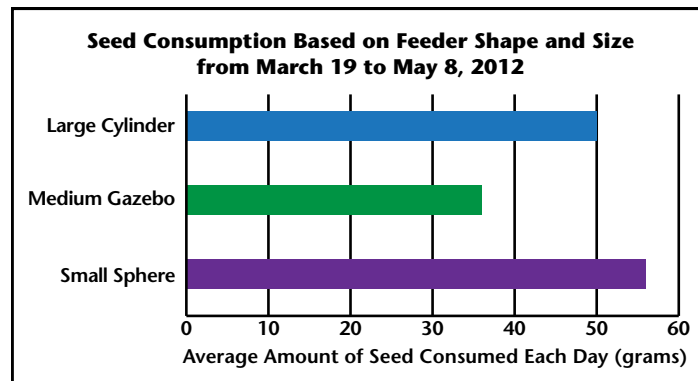
1. Bought three different shaped bird feeders of different sizes.
2. Filled the feeders with the same amount of black oil sunflower seeds.
3. Hung all the feeders in a shady area within five feet of each other.
4. Checked the feeders periodically (weekly).

5. Measured the amount of food that was eaten by the birds for each feeder (by subtracting amount left from the original amount).

6. Data were collected from 3/19/12 to 5/5/12.

### Data Table and Graph

Amount of seed consumed in grams for each type of feeder			
Date	Small sphere feeder	Medium gazebo feeder	Large cylinder feeder
March 26, 2012	549	144	257
March 29, 2012	462	172	379
April 2, 2012	494	218	568
April 7, 2012	568	568	568
May 5, 2012	568	568	568
Average seed consumed/Day	56	36	50



### Results and Analysis

Our hypothesis was wrong because based on our data, the birds mostly ate from the small, green sphere.

### Conclusion

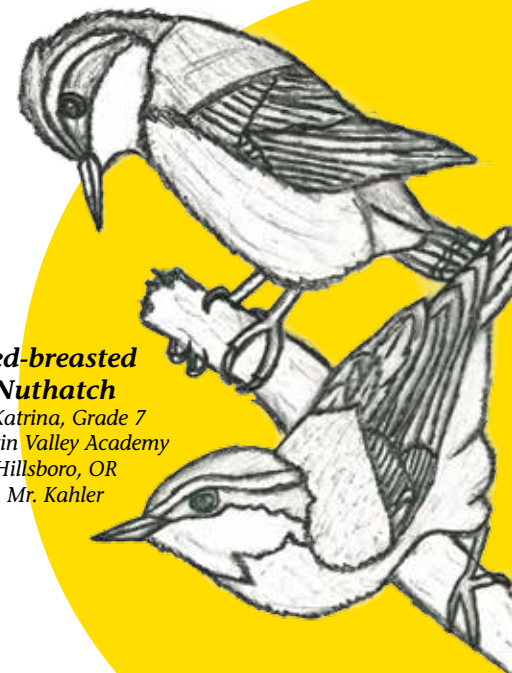
Our conclusion was that the birds ate most from the bird feeders that were easier to eat from. So, more birds ate from the green sphere since it was very easy to manage.

They didn't eat out of the large, red cylinder feeder as much because the seed fell out too easily, and they didn't eat out of the medium sized Ecozebo as much because it was too

wobbly to stand on. They could get the seed from the small, green cylinder feeder. Of the five weeks that we measured, four out of five weeks the sphere feeder was eaten from the most. The size though didn't seem to have an effect.

The birds probably thought that the green sphere bird feeder was easier to eat from because the food was available from all sides. Unlike the other feeders. The Ecozebo feeder had holes in it for food availability, and the red feeder had coverings on the top and bottom.

In the future, maybe we could look at the bird feeders every week, instead of looking at them at unequal time in between the dates.



**Red-breasted Nuthatch**

by Katrina, Grade 7  
Tualatin Valley Academy  
Hillsboro, OR  
Mr. Kahler



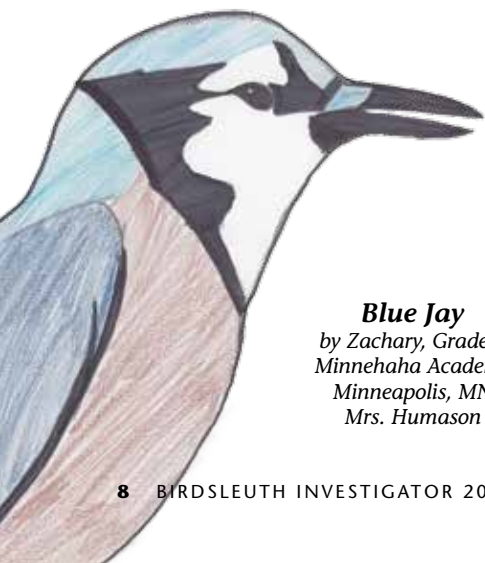
## Changes in American Goldfinch Flock Sizes in Hennepin County Over the Last Ten Years

by Sierra, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

### Question

How has the group size of American Goldfinches changed over the past years in Hennepin County?

I chose this particular question about goldfinches because I enjoy seeing these vibrant birds and want to know about the flock patterns of them in my home, Hennepin County. American Goldfinches are usually found in weedy fields and flood plains. Places that fit their habitat requirements include roadsides, orchards, gardens, rivers, poplar plantations, and any areas with deciduous trees or thistle. Goldfinches breed in late summer in loose colonies. On average, they have 4-6 babies and about one or two broods per year. Flocks are common outside of the breeding season and Goldfinches tend to flock with Redpolls and Pine Siskins. Carrying capacity is a concept that refers to the maximum population a habitat can hold of a specific species. The carrying capacity of a habitat depends on the resources a habitat has and the condition of that habitat.



**Blue Jay**

by Zachary, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

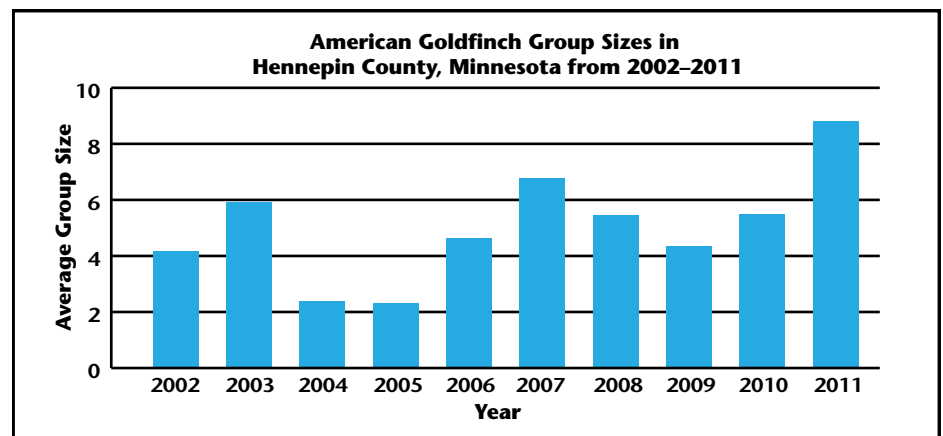
### Hypothesis

If I study how the flock sizes of American Goldfinches in Hennepin County have changed within the last few years, then I will see that the flock sizes have stayed about the same or have slightly decreased.

Using eBird, data were collected on American Goldfinch group sizes in Hennepin county, Minnesota. Data were recorded for each month over a ten year period (Jan. 2002- Dec. 2011).

months that could have set inaccurate year averages. Also, a few individual goldfinches might not have been recorded. This project could be more accurate if checklists were submitted with specific look-outs for American Goldfinches or if I focused on one specific month continuously throughout ten years instead of having a year average. This study would be interesting if I

### Data Graph



An average group size was calculated for each month. If there was no data for a particular month, it was not recorded.

These data include the average group sizes for American Goldfinches in Hennepin County from 2002 to 2011. The approximated average group sizes varied from 2.31 (in 2005), to 8.81 (in 2011). The data show the flock sizes varied from each year and there was a general positive slope from 2002 and 2011.

### Conclusion

Based on this data, I conclude that American Goldfinch group sizes in Hennepin County have generally increased over the past ten years, overlooking slight outliers. The data do not support my hypothesis that group sizes would not change or barely decrease. There were a couple low outliers in some

focused on a particular season or month and look for any differences in group sizes. It'd also be interesting to start my own bird watching and collect data on how American Goldfinches behave in different group sizes.

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## Mr. Hayes' Class— Bird Olympics Theme

by Camilla, Grade 5  
Nichols School  
Buffalo, NY  
Mr. Hayes

### Feathery Ferocious Defenders

**B**irds have found many ways to defend their nests, but four common aggressive birds stand out.

The first prize winner is the short and stubby Northern Mockingbird. This is because it has such a deep interest in harassing others. It can sing and imitate up to fifty different bird songs, so it might be a little confusing to have one in your garden. If any potential threat comes close to their territory, they will prance around their enemy, flapping and flashing their wings as a signal of alert. After a while, they may also chase them away.

Coming close in second place is the well-known Northern Cardinal, impossible to miss with its flashing plumage and red crest. It seems to despise mostly its species, commonly charging at each other five feet from the ground. They can also be intolerant of females in winter, as well as other birds at feeders. They are constantly seen driving other birds off their territory and even fighting their reflection.

After the cardinal is the Red-winged Blackbird, always working in a group. In breeding season, they will form flocks and all nest in the same place, keeping lookouts on every tree to survey their territory and fly after intruders. The male is black with flashing red on the wings, while the female is brown.

The last two birds, the American Robin and the Blue Jay also have their own strategies. The American Robin, 12 inches, brown with a red breast, uses his song and his instinct of charging at all birds to show where he's nesting. The Blue



**Northern Mockingbird**  
by Camilla, Grade 5  
Nichols School  
Buffalo, NY  
Mr. Hayes

Most Territorial Birds				
Birds	Teamwork	Use of song	Tolerance of birds	Fighting
Northern Mockingbird	None	Used all the time	Not much	Chases only
Northern Cardinal	None	Used sometimes	None	Fights and chases
Red-winged Blackbird	Much	Not used	Not much	None
American Robin	None	Not used	Not much	Charges only
Blue Jay	Some	Used sometimes	Some	None

### Ready, Set, GO! The Fastest and Slowest Birds

Fastest Birds		
Birds	Speed	Going after
Peregrine Falcon	200 mph	Rodents
Spine-tailed Swift	171 mph	Insects
Frigate Bird	153 mph	Fish
Slowest Birds		
Birds	Speed	Going after
American Woodcock	8 mph	Earthworms
Eurasian Woodcock	9 mph	Berries/Seeds



by Abbie and Anna, Grade 5  
Nichols School  
Buffalo, NY  
Mr. Hayes

Jay, a northern bird with a beautiful crest and a blue, white, and black plumage, can do several hawk calls, and is very intelligent, but may dive at your head if you walk under its nest.

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## Sweet Chickadee

by Sierra, Grade 7  
FDR Middle School  
Bristol, PA  
Mrs. Steinberger

Black and white,  
with a flash of gray.  
Sweet chickadee,  
why don't you stay?  
Your chirping so calming,  
your soaring so light,  
you at my feeder is such a delight.  
Your jumpy friend Junco,  
pecking beneath your flying,  
he's so social,  
and stays in flocks without shying.  
His stubby pink beak  
reaches for millet,  
but Sunflower seeds  
contribute to your diet.  
Sweet Chickadee,  
please don't leave me.  
A world without birds  
is hard to see.

## Ode to the Bird

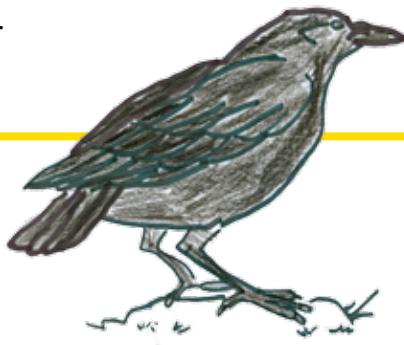
by Shemarquez, Grade 7  
FDR Middle School  
Bristol, PA  
Mrs. Steinberger

Ode to the bird-a cool sound heard  
As I wake up in the morning  
I hear a chirping sound  
as they fly unbound  
Ode to the bird-Ode to the bird  
They fly back to their nest  
To wake their babies from their rest  
They chirp and plead  
for worms and seed  
Ode to the bird-Ode to the bird  
As I get to my science class  
I look through the window glass  
to record what I heard  
from the amazing birds  
So Ode to the bird-Ode to the bird  
What a sight to see  
It all seems great to me

## Hawks

by Ben, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

Wheeling in the sky,  
so gracefully,  
Soaring high and looking down,  
To see what can be seen,  
To find and catch its prey,  
Is its constant goal,  
Then to return to the nest,  
Nestled between branch and bole,  
The beauty of this bird is great,  
When it dives,  
It dives fast and straight,  
The whole world is beneath  
their wings,  
Buildings, people, and other things,  
Sharp claws and curved beaks,  
Make this bird totally unique,  
Fast dives and spread wings,  
Help the hawk do its thing,  
In conclusion I should say,  
Hawks are my favorite birds,  
Any day.



**American Crow**  
by Nick, Grade 7  
Minnehaha Academy,  
Minneapolis, MN  
Mrs. Humason



**Blue Jay**  
by Danielle, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason



**Black-capped Chickadee**  
by Lizzy, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

## Bird Parts

by Gabriel, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason

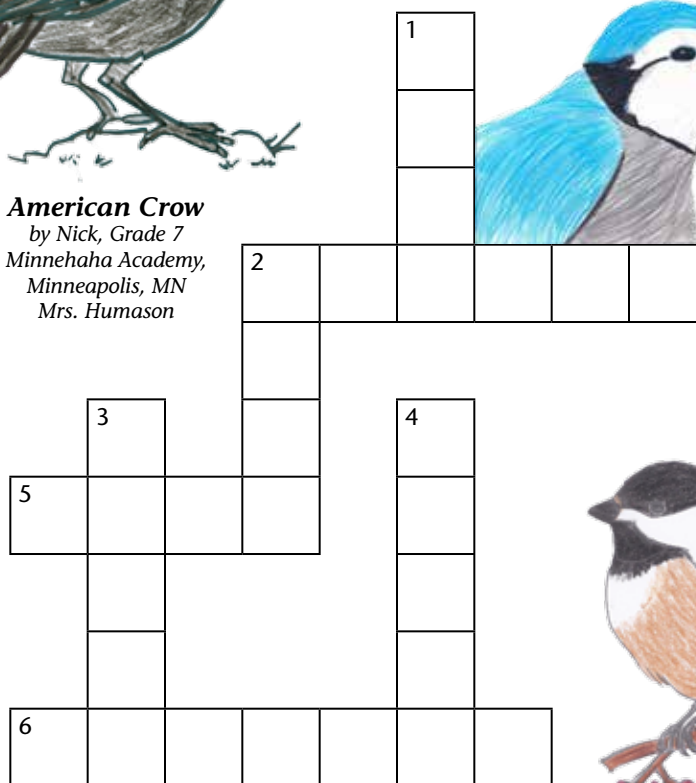
### Across

2. Front of bird
5. Under the head
6. Around the eye (2 words)

### Down

1. Back of a bird's neck
2. Helps bird eat
3. Under a bird's breast
4. Top of head

(Answers on page 14)







**Heron Drawing**  
by Emma, Grade 3  
St. Mary's School  
Cortland, NY  
Mrs. Guido

## Heron Cams

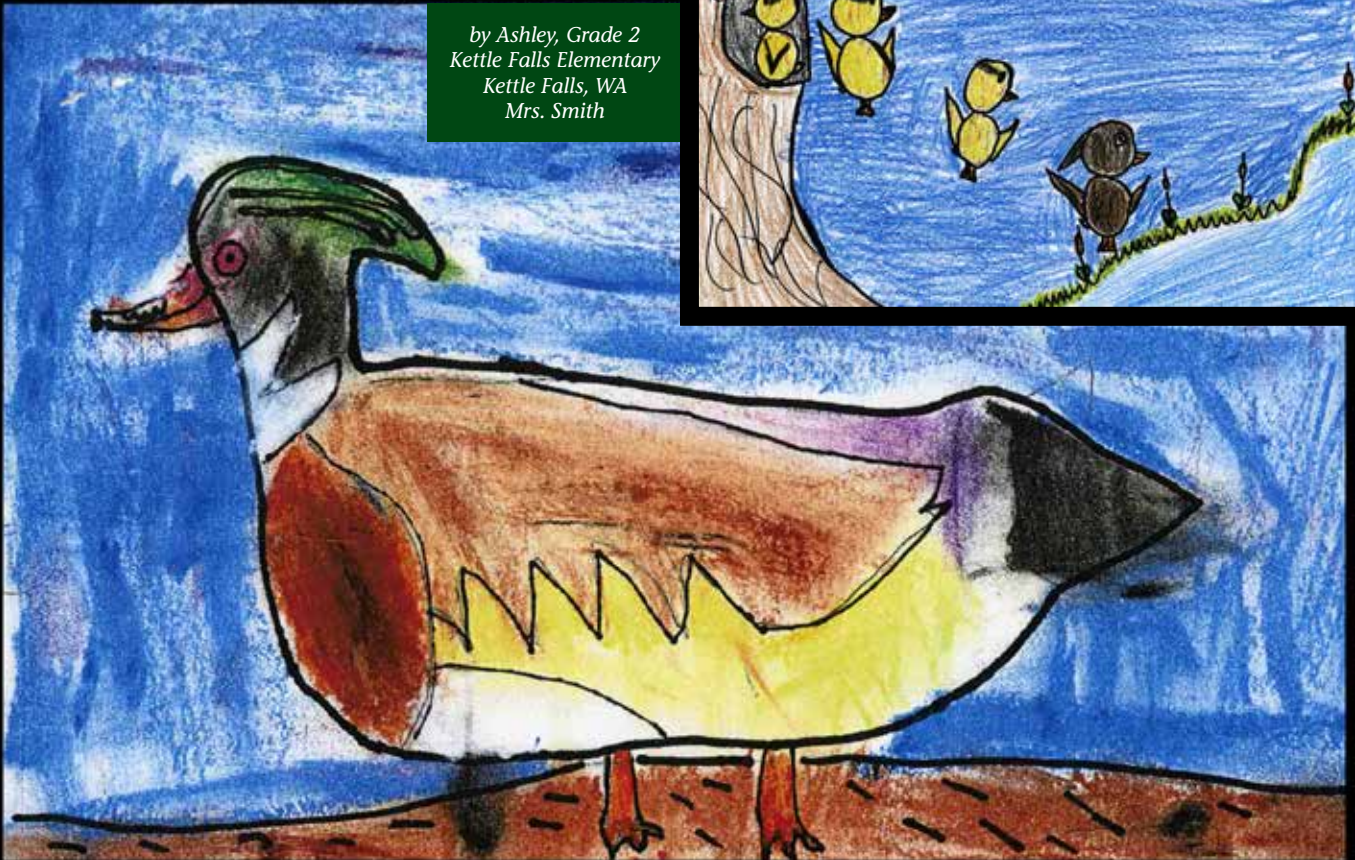
by Ben, Grade 3  
St. Mary's School  
Cortland, NY  
Mrs. Guido

My favorite thing about the Great Blue Herons are watching the eggs hatch because the chicks look cute when they hatch.

The mom and the dad are really nice because they move the sticks from being in front of the camera. The chicks are cute when they pile up and sleep.

The chicks are silly when they beak battle.

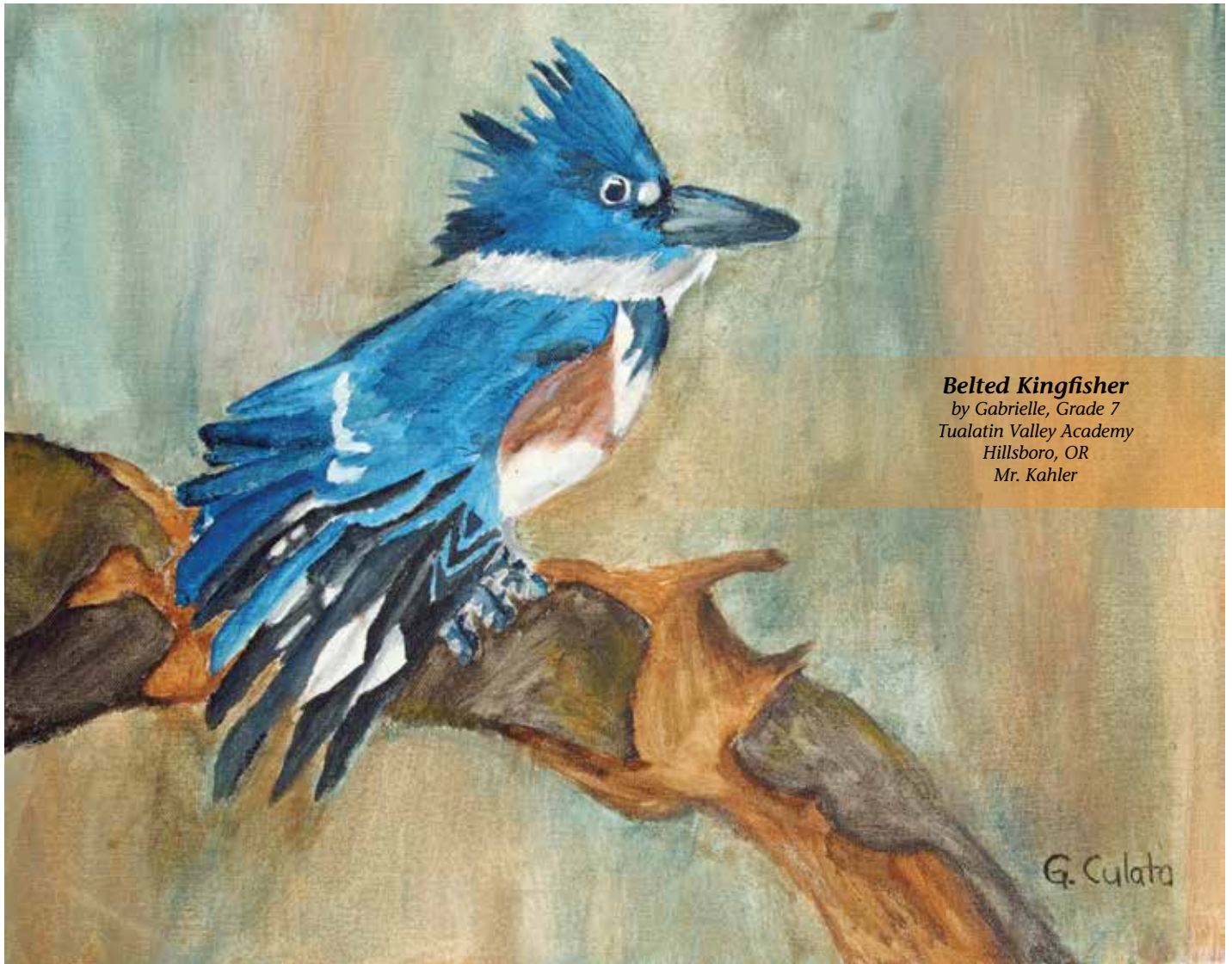
## Wood Duck Expedition



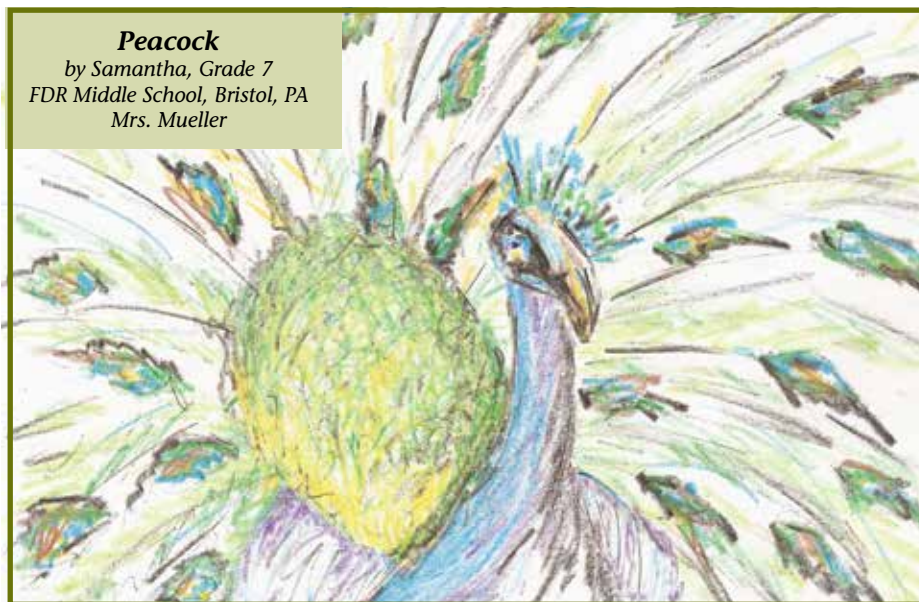
by Ashley, Grade 2  
Kettle Falls Elementary  
Kettle Falls, WA  
Mrs. Smith

by Mya, Grade 2  
Kettle Falls Elementary  
Kettle Falls, WA  
Mrs. Corvino





**Belted Kingfisher**  
by Gabrielle, Grade 7  
Tualatin Valley Academy  
Hillsboro, OR  
Mr. Kahler



**Peacock**  
by Samantha, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Mueller



**Blue-tailed Emerald Hummingbird**  
by Shana, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Mueller



**Atlantic Puffin**

by Sara, Grade 7  
Minnehaha Academy  
Minneapolis, MN  
Mrs. Humason



**Hummingbird and Flower**

by Angela, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Mueller



**Untitled**

by Nahony, Grade 5  
Selser School, Chicopee, MA  
Mrs. Herbert



**Eastern Bluebird**

by Andrea, Grade 7  
FDR Middle School, Bristol, PA  
Mrs. Mueller





# Announcing BirdSleuth's New Website



**B**irdSleuth resources encourage kids to spend time outdoors, connecting with nature by focusing on the fascinating sights, sounds, and behaviors of birds. We offer resources for formal and informal science educators... in school, in afterschool and youth programs, and in homeschooled. Our materials encourage kids to answer their own questions about nature using the scientific process and motivate them with the real-world importance of citizen science.

Our new website makes it easier than ever to discover resources and get great ideas for teaching youth through the wonder of birds. You'll find:

- All of our free resources downloads compiled on one page
- A search bar that will help you locate topics of interest (for example: inquiry, homeschool, birds) and hone in on content suited for you
- Informative and fun-to-read blog posts that share science content and new ideas for teaching and learning
- Easy ways to connect to BirdSleuth via social networks

Welcome to our new website! Visit [www.birdsleuth.org](http://www.birdsleuth.org) or use your smart phone to scan!



The Cornell Lab of Ornithology  
**BirdSleuth K-12**

## BirdSleuth INVESTIGATOR

Volume 1, Winter 2012

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To learn more about BirdSleuth, visit [www.birdsleuth.org](http://www.birdsleuth.org)

We would like to thank our interns for the valuable assistance they provide.

The BirdSleuth team values your feedback. If you have questions or comments, you can use any of the following methods to reach us:

By email: [birdsleuth@cornell.edu](mailto:birdsleuth@cornell.edu)

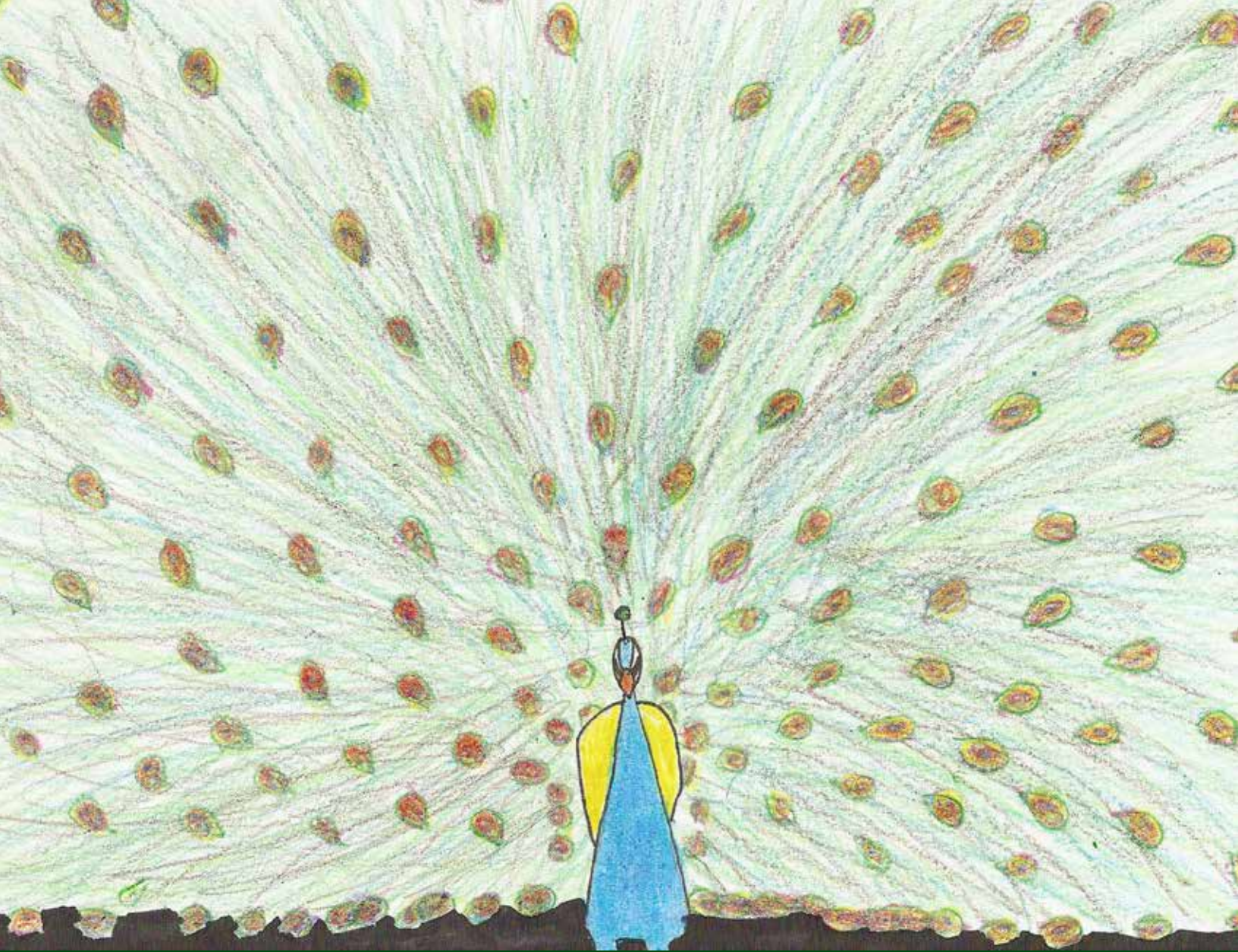
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*Peacock*

*by Chandani, Grade 7, FDR Middle School, Bristol, PA, Mrs. Mueller*

[www.birdsleuth.org](http://www.birdsleuth.org)

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