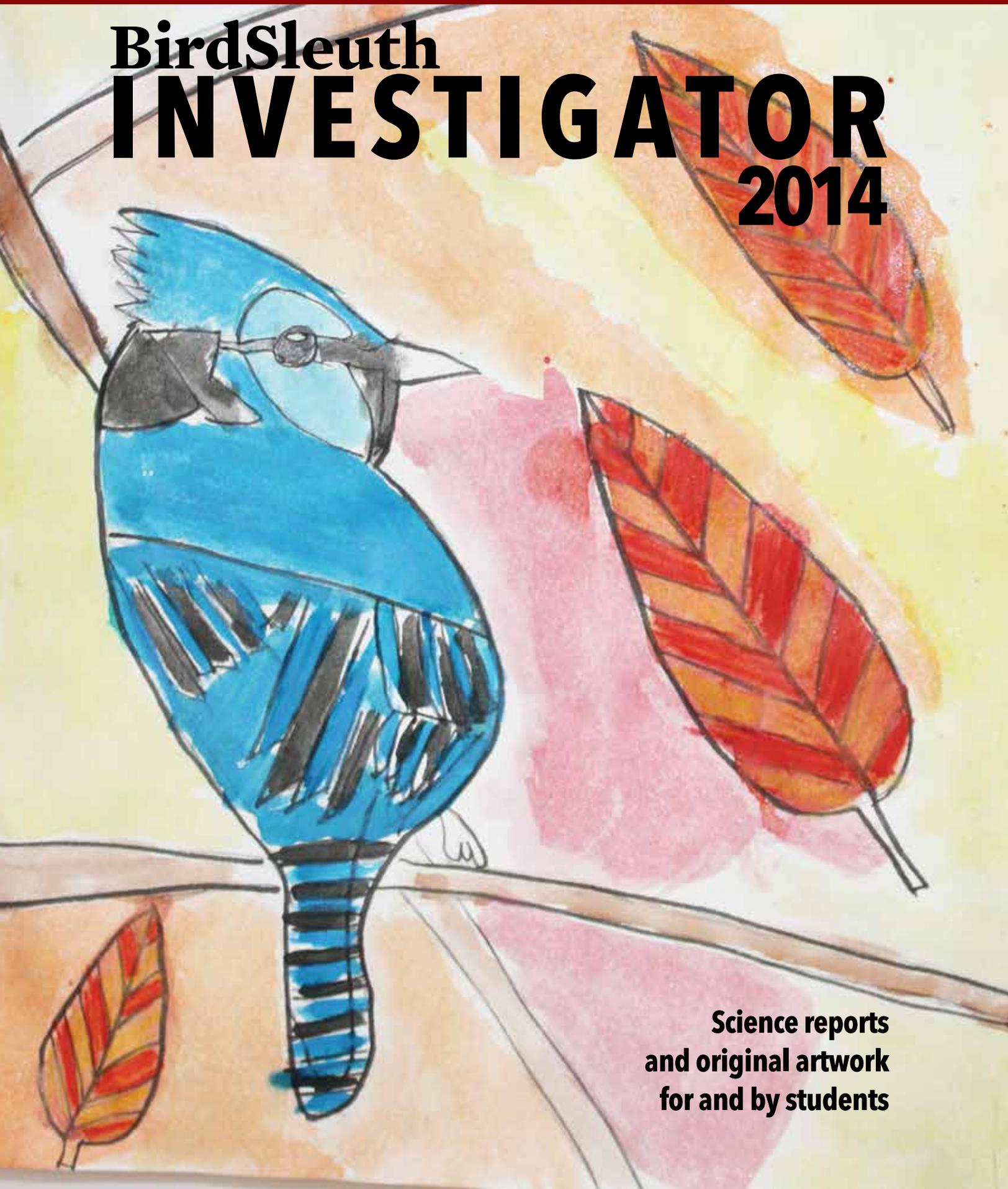


BirdSleuth **INVESTIGATOR** **2014**



**Science reports
and original artwork
for and by students**

Dear Students

What can you discover with a bird feeder? Though science investigations can explore many different topics, we noticed a strong theme of “feeding birds” in this year’s submissions. When you turn the pages of this edition of *BirdSleuth Investigator*, you’ll see that students all over the country have been exploring feeders, investigating which types of seed birds prefer, where a feeder should be placed, and what time of day is most popular for birds to visit feeders.

As you read through their projects, I encourage you to think critically about each one—what made the project successful? If you were going to replicate the project, what might you change? What might be the next interesting thing to investigate based on the project results?

Wild birds are exciting to observe and study! If you are inspired, consider exploring birds yourself and when you do, make sure you send in your submissions to us for next year’s edition of *BirdSleuth Investigator*!

Sincerely,



Ileana A. Betancourt
Editor, *BirdSleuth Investigator* 2014

Front Cover: by Jaylen, Grade 7, Liberty Middle School, West Orange, NJ, Dr. Galate



Students at Diehl School in Erie, PA stand by their bird feeder made from recyclable materials and purchased by recycling cans. Photo by Barb Gates.



A Tale of 100 Years

2014 marks the 100-year anniversary of the death of the last Passenger Pigeon—once the most abundant landbird in North America. This species flew in flocks of up to one billion birds, blotting out the sun for hours as they flew by! The Passenger Pigeons migrated long distances across their range which covered Canada and most of the United States, and they nested in dense breeding colonies. Hunting and habitat loss reduced the bird’s population from billions to thousands within 25 years. From there, populations dwindled further until the last Passenger Pigeon, named Martha, died at the Cincinnati Zoo in 1914.

What have we learned? By continuing to monitor species through citizen-science projects like eBird and the GBBC, we can help conserve endangered species and at the same time help keep the common birds common. Many student groups are already taking action in their communities and are sharing their stories on the BirdSleuth Action Map. For more information about the Passenger Pigeon and to learn what kids are doing to protect endangered species, please see our blog post at:

birdsleuth.org/make-a-difference-monday/



Passenger Pigeon
by Hayashi
and Toda

How Does the Temperature Affect the Number of Song Sparrows We See?

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

Introduction

When my 7th-grade class and I go out to the Tualatin Valley Academy bird blind, we see lots of birds and we record the amount of birds that we observe, sorting them by species. I noticed how the weather affects the amount of birds we see and how they act. This interested me, and I wondered how this affected one of the most commonly seen birds, the Song Sparrow. So I asked myself, how does temperature affect Song Sparrows?

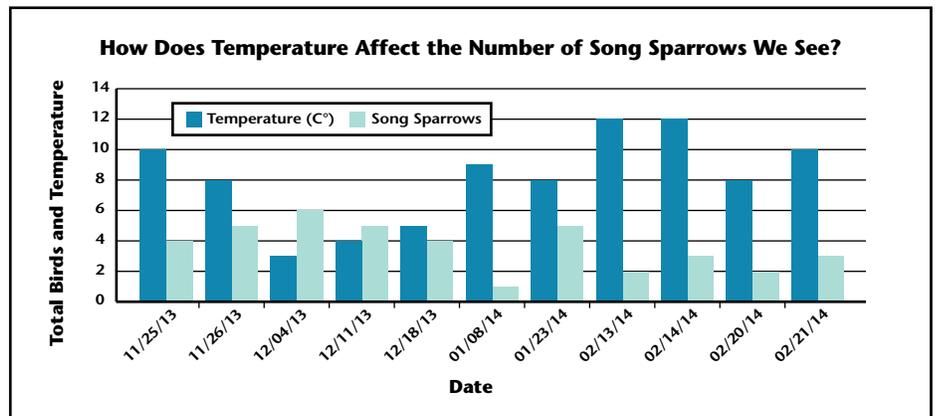
Hypothesis

My belief is that if the temperature is lower, then there will be more Song Sparrows. This is based off the fact that when the weather is colder, there is less food available elsewhere other than the feeders, so they come to our feeders.

BirdSleuth says: Most resident birds of temperate areas eat seeds, nuts, and berries; food that is found year round.



by Liliana, Grade 7, Liberty Middle School, West Orange, NY, Mrs. Villalobos



Materials

Tally sheet, pencil, binoculars, bird ID book, coat (just in case of not-so-pleasant weather), weather station (for measuring temperature and so on)

Methods

Once we gather the materials, we write down the temperature and the other information we might need from the weather station on the roof. Then we head out to the bird blind where we gather data by observing the birds that we see coming to the feeders. After we get back to the classroom, we enter the data into our eBird accounts.

Variables

The independent variable is the temperature because it can vary from day to day.

The dependent variable is the number of Song Sparrows that we see because that number is affected by the temperature.

Results

Our data show that there seem to be more Song Sparrows when the temperature is lower (see graph).

Discussion

Our observations supported the hypothesis. The hypothesis stated that there were more Song Sparrows at the feeders when the temperature is cooler. When the weather is warmer, fewer Song Sparrows visit the feeders. I think this is because of the lack of food elsewhere.

The temperature affects the birds' food supply. Cold temperatures seem to kill plants and cause the bugs to disappear, reducing food sources and other forms of nourishment. So, birds come to the feeders at the bird blind when it is cold. For example, on January 8th the temperature was higher than normal, and the Song Sparrow count was lower than average. However, on December 4th, the temperature was lower, and the Song Sparrow count higher. This shows that there are fewer Song Sparrows when the weather is warmer.

This is also true for almost all the birds that we see at the bird blind. They come to the feeders when their other food sources are harder to find. Temperature affects their everyday behavior and ability to find food. To me it's fascinating that something like temperature can affect something in such a way that it can change the very way they act.

References

- www.paulnoll.com/Oregon/Birds/climate-temperature.html

Do Birds Prefer Black Oil Sunflower Seed or Mixed Seed?

by Gabrielle, Grade 6
New Canaan Country School
New Canaan, CT
Ms. Etzold

Purpose

The purpose of this study was to find out if more birds would come to a feeder with black oil sunflower seed or a feeder with mixed seed.

Hypothesis

More birds will go to the mixed seed feeder than the feeder with just black oil sunflower seeds because there is more variety in the mixed seed feeder.

Variables

Independent: Black oil sunflower seed and mixed seed

Dependent: Number of birds and species that went to each feeder

Conditions kept constant: Feeders, time of observations, and height of feeders

Materials

Two large tube feeders, black oil sunflower seed, and mixed seed

Methods

The experiment was conducted at a house in Darien. Tube feeders were hung on monkey bars in front of pine trees. They were hung a little more than five feet from the ground and about one foot apart from each other. Black oil sunflower seed was in one feeder and mixed seed was used in the other feeder. There was a house about 20 feet behind the feeders, and trees between the house and the feeders. Another house was about 50 feet away from the other side of the feeders. There was no road within 100 feet of the feeders.

The observations were made outside. The bird feeders were observed from about ten feet away. All ten observations were made between 3:00 P.M. and 5:30 P.M. The observations lasted ten minutes, and the birds and feeders were observed ten times. The study lasted a month. The number and species of birds visiting each feeder were recorded.

Results

The black oil sunflower seed feeder had nineteen more visits than the mixed seed feeder.

The graph shows that the black oil sunflower seed, with 145 visits, was more popular than the mixed seed, with 126 visits. Also, which bird ate which seed. It was noted that there were more Black-capped Chickadees that went to the black oil sunflower seed feeder than the mixed seed feeder.

Discussion

The results did not support the hypothesis. One observation made from the results was that the Black-capped Chickadees went to the black oil sunflower seed 64 times and they went 28 times to the mixed seed. This was significant for the results because if the Black-capped Chickadees didn't go to the black oil sunflower seed feeder, the results would be different. It appeared that different bird types prefer different seeds because there were multiple types of birds, including the Black-capped

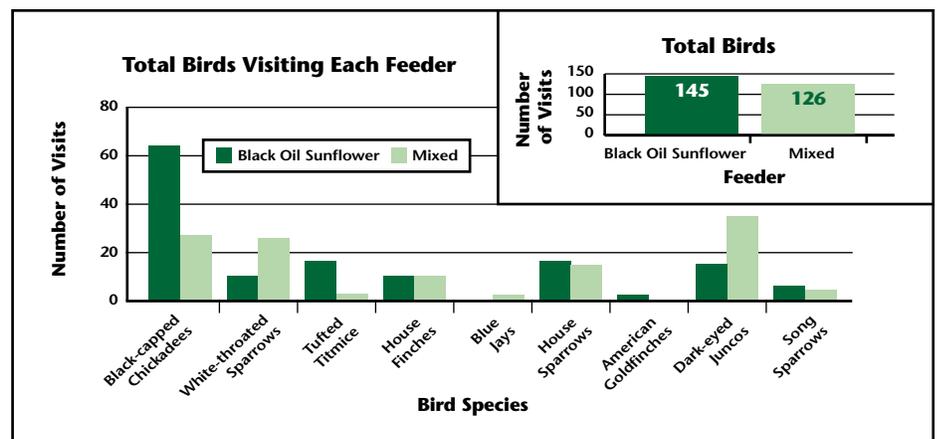


by Vanessa, Grade 7, Liberty Middle School, West Orange, NJ, Dr. Galate

Chickadees, who were eating mostly one seed instead of another.

There are many other reasons why the results might have turned out like they did. The food amount also could have affected the results. Birds may have eaten at the feeder with the most seeds, or the one without the big birds. It is thought that big birds may have affected the results, as they may have scared the rest of the birds, who were mostly small. Dogs or other animals could have also scared some birds away and affected my results.

Some of the questions for further research are: Do birds come to certain feeders depending on the weather? Do birds eat certain food depending on the temperature?



Does the Height of the Feeder Affect the Number of Birds that Come to the Feeder?

by Will, Grade 6
New Canaan Country School
New Canaan, CT
Mr. Maliakal

Purpose

The objective of this experiment was to see if the height of a feeder has an effect on how many birds come to the feeder.

Hypothesis

The higher a feeder is placed, the more birds will come because a feeder that is farther from the ground is farther from the risk of predators like cats.

Variables

Independent variable: Feeder height

Dependent variable: Number of species of birds seen

Conditions to keep constant: Check each feeder at the same time of day, use the same seed and the same amount of seed in each feeder, same general location other than the height.

Materials

Two feeders, rope, black oil sunflower seed, journal

Methods

The experiment was conducted in front of my house near trees and our gate in Rowayton, Connecticut. One end of a rope was connected to the feeder and the other half was thrown over a branch and tied. This was done twice to have both feeders hanging from similar branches, approximately, five feet apart. The feeders that were used were tube feeders filled with black oil sunflower seeds.

The observations were taken from the window across from the feeders. Binoculars were not used. Ten observations were taken in the morning and late afternoon, for 10-15 minutes each day over a 4-week period. I made notes on how many birds of each species came to each feeder.

Results

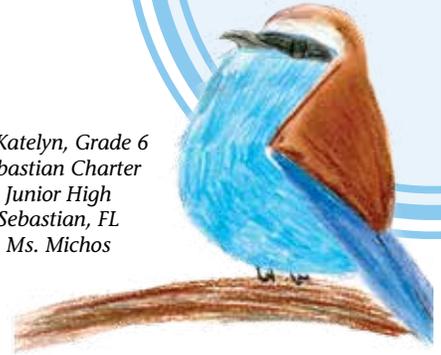
I observed birds visit the high feeder 73 times and 37 at the low feeder; a 36 visit difference. The first bar graph is to show the total number of birds that came to each feeder. The second bar graph is to show what species and how many birds came to each feeder.

Discussion

After the study, I learned that more birds prefer the high feeder to the low feeder. By looking at both of the feeders you could tell that the low feeder had more seed than the high feeder. That tells me that the birds preferred the higher feeder to the lower. More birds went to the high feeder than the low feeder because the birds might have known that if they went to the low feeder there was a higher risk of getting attacked by predators than at the high feeder.

There may have been some inaccuracies in this study that changed my results. Where I placed my feed-

by Katelyn, Grade 6
Sebastian Charter
Junior High
Sebastian, FL
Ms. Michos

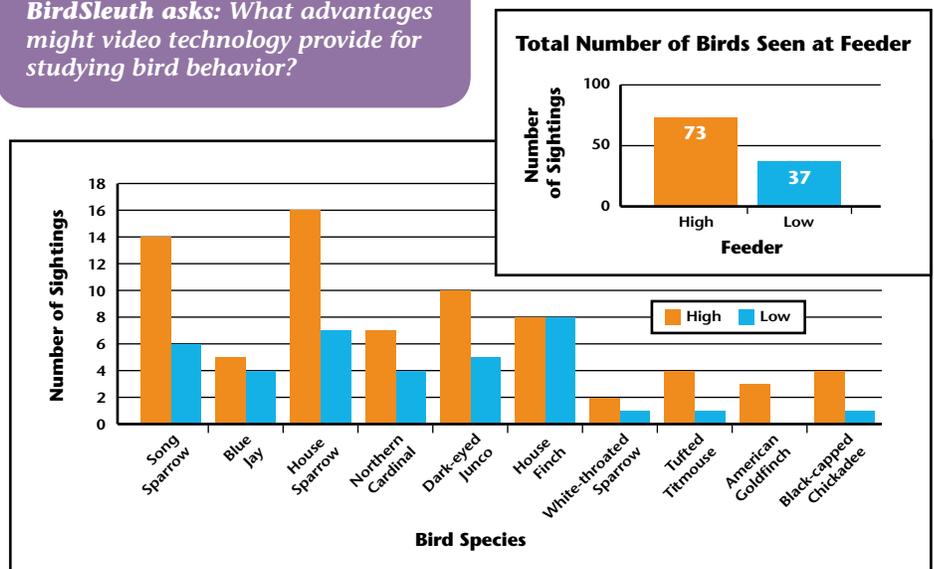


ers may have changed my results. In Rowayton, there are tons of disturbances: the houses are close together, my neighbors in their yards, their dog, my dog, my cats, cars driving around, all of which might have been a disturbance for the birds.

There may have been some misidentification in this study. That's when you see a bird on a feeder and for example you think it's a Song Sparrow, but really it's a House Finch. The time of day that I observed could have affected results too. I took most observations in the afternoon after school. Maybe if I took my observations in the morning, I would have different results.

If I were going to improve my experiment, I would have more than one person with me while making observations. This would help me not miss any birds if I'm distracted by something. Also, if I attached a video camera to my window, I could set it to record while I'm at school, and after school I could watch and take notes on the video.

BirdSleuth asks: What advantages might video technology provide for studying bird behavior?



When Do Birds Come to Feeders?

by Nicholas, Grade 5
Homeschool
Regina, SK, Canada

Introduction

I wondered at what time the birds would prefer to eat. I chose to do this experiment because I had begun to notice that on nice days, the birds most often came at noon.

Hypothesis

My hypothesis was that more birds would come around 12:00 P.M. to 1:00 P.M. I believe the birds come from 12:00 P.M. to 1:00 P.M. because the sun is at its highest, and it is likely warmest then.

Materials

Graph paper, a pencil (or pen), a bird feeder, black oil sunflower seeds, a source that tells the time, and a source for weather information (I used a computer.)

Methods

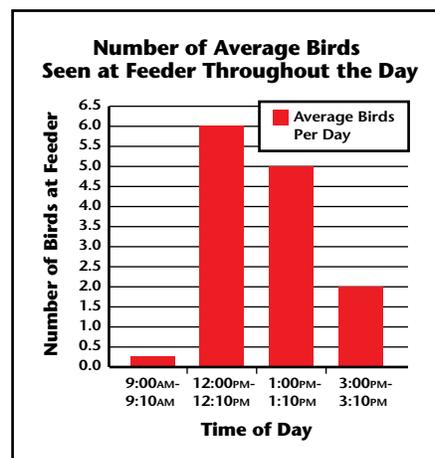
First I found a week that let me watch my bird feeder for 10 minutes four times a day (I did my experiment in February). I watched once at 9:00 A.M. to 9:10 A.M., once at 12:00 P.M. to 12:10 P.M., once at 1:00 P.M. to 1:10 P.M. and once at 3:00 P.M. to 3:10 P.M. At 9:00 A.M., the sun was up but if it was dark out I would change 9:00 A.M. to be 10:00 A.M. On graph paper I made a bar graph and wrote each time I would watch the bird feeder on the x-axis. On the y-axis I wrote the numbers one to however much space I had. If more birds came than what my graph went up to I would use tally marks to record the amount of birds that came. When counting the birds that came to my feeder I would count the most birds that came at once. Beside my graph, I would write the date and the temperature

(both the high and the low with the wind-chill because the temperature may affect the birds as well). I set up my bird feeder on a low hanging tree about ten to fifteen feet away from our window. My bird feeder remained in the same spot throughout my experiment.

Tips

- When refilling my bird feeder I would sometimes fill it up when it was dark.* That way I would not scare the birds!
 - Write down on a calendar when you will watch the bird feeder (this will save time, help remind you and keep other things out of the way)!
- *The birds are not scared of me anymore, so I can fill up my bird feeder during the day.

Results and Analysis



After my week of watching the birds, I put together my data. My results show that the birds are more active at my feeder during noon



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

and 1:00 P.M. To get the average per day I added 9:00 A.M. with all the other 9:00 A.M., the 12:00 P.M. with the 12:00 P.M. and so on. Then I divided each time of day by 7 because I watched for 7 days. See my results.

Discussion and Conclusion

I found my hypothesis was partly right; some days it was stormy so few birds came but otherwise the birds came around 12:00 P.M. to 1:00 P.M. I added the average for each time of day to see what the average per day was; my answer was 13.3.

References

- For my source of weather information I used The Weather Network.

BirdSleuth asks: 13.3? How did Nicholas get this number? He used army time to calculate the average overall visit. 13.3 would translate to 13.18 (60 minutes in each hour) which is the same as 1:18 P.M.



House Finch, male yellow variant by Nicholas, Grade 5, Homeschool, Regina, SK, Canada

Effects of Cars on Birds

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

Question

Is there a correlation between the number of cars passing by on River Road and the number of birds seen at Minnehaha Academy?

Introduction

I chose this question because I always see cars go by Minnehaha Academy while we are bird watching. I wondered if fewer birds come when they saw or heard cars. Hearing is one of the birds' most important senses and their ears are shaped to focus sound. The ears are located slightly behind and below the eyes, and they are covered with soft feathers. The shape of a bird's head can also affect its hearing, such as owls, because the face helps direct sound towards their ears.

Hypothesis

My independent variable is number of cars, and my dependent variable is the number of birds.

H1: If more cars pass by then fewer birds will be seen.

H2: If more cars pass by then more birds will be seen.

H0: If more cars pass by then the same amount of birds will be seen.

Procedure

1. Build bird feeders then buy bird seed. Put feeders outside and wait for one day for birds to notice the feeders.
2. Go outside and count how many cars pass by and how many birds are seen. (Make sure to count the highest number of each bird species seen at one time to avoid counting them twice.) Do this for about 10-15 minutes.

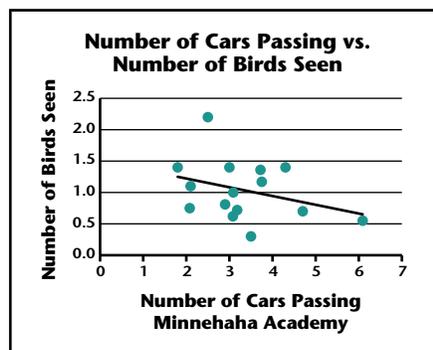


by Jaycee, Grade 7, Liberty Middle School, West Orange, NY, Mrs. Villalobos

3. Go once a week for about 7 weeks and repeat step 2 (make sure feeders are always full).

Results

No. of cars	No. of birds	Watching birds (minutes)	No. of cars/minute	No. of birds/minute
43	14	10	4.3	1.4
25	9	12	2.08	0.75
45	14	12	3.75	1.17
30	14	10	3	1.4
21	11	10	2.1	1.1
18	14	10	1.8	1.4
32	9	11	2.91	0.81
25	22	10	2.5	2.2
35	3	10	3.5	0.3
35	8	11	3.18	0.72
41	15	11	3.72	1.36
34	11	11	3.09	1
47	7	10	4.7	0.7
40	8	13	3.08	0.62
67	6	11	6.09	0.55



Analysis

These data show that the more cars that pass by, the fewer birds will be seen. The range of birds per observation period was 3 to 22, and the range of cars per observation period was 18 to 67. The pattern that I saw was the more cars that pass by, the fewer birds are seen.

Conclusion

Based on this data, I conclude that there is a correlation between the number of cars passing by on River Road and the number of birds seen at Minnehaha Academy. The hypothesis that the data support the best is that the more cars pass by, the fewer birds will be seen. A way that I could improve my procedure is going outside and doing my procedure more often. A new question I had is if the number of noisy cars that pass by (motorcycles, trucks etc.) affects the number of birds seen.

Works Cited

- "Bird Senses." Birding/Wild Birds. Melissa Mayntz, Web. 22 Jan. 2014. birding.about.com/od/birdbehavior/a/Bird-Senses.htm.
- "Hearing and the Bird Ear." The Earth Web. Gordon Ramel, Web. 22 Jan. 2014. earthlife.net/birds/hearing.html.

Our Bird Feeder Experiment

by Primary B Students
(grades K & 1)

Harley School
Rochester, NY
Ms. Long

Note: All photos were taken by Primary B Students. The text was transcribed by a teacher as students shared ideas.

Our Question

Where should we put our bird feeders when we go outside in our Harley School backyard? We want birds to eat the food, but don't want other animals to eat the food or the birds.

Our Plan of Action

First we need to make bird feeders.

Materials

Pinecones, Crisco or sticky food, yarn pieces, seeds

December 5



Steps

1. Tie pieces of yarn to pinecones
2. Dip the pinecones into Crisco to cover the whole pinecone
3. Roll the pinecones in the seeds

Early January—We made a list of good places to hang our birdfeeders.

- A skinny tree branch so squirrels will fall off
- Near the creek so birds could get drinks, too

- A high branch to keep predators from getting to them, but not too high we can't reach it
- Away from the playground so kids don't bother them



January 16—We hung our bird feeders. We picked a perfect day. We decided to record our experiment by taking pictures every time we checked on the feeders.



January 30—We checked the feeders and discovered:

- Three bird feeders had vanished, we didn't find any tracks;
- Four of our bird feeders showed that birds had been there because some of the seeds were missing;
- Thirteen people thought they had chosen good spots because the feeders were still there;
- Two people did not think that they chose good spots. One person said that because her pinecone was gone. It may not have been high enough.

March 11—The class wasn't able to visit the bird feeders for many weeks because the weather had been so bad; too cold for outside explorations. When we did visit, we discovered:

- One team found their string was gone this time. Last time, their string was still there;
- Four more feeders were gone this time;
- We put out thirteen bird feeders altogether, six bird feeders were still there;
- Most of the seed had been eaten on the bird feeders that were still there. The gooey stuff was gone, too.

What We Learned From Our Experiment

- Maybe we need to use string that is stronger than yarn to hang them.
- If you see a tree that has a lot of bird feeders on it already, look for another tree.
- Put your bird feeder on a high, thin branch so that birds can get to it, instead of other animals.
- Don't hang it on a branch that is too low. Pull the string (once it is over the branch) to make the bird feeder go up and up.
- Tracks could have been covered over and over, so we don't know if mammals, or other animals got some of our bird feeders.
- Don't hang bird feeders near busy places like our school playground.
- It can be hard to find your bird-feeder (week-to-week) unless you took a really good picture.
- You can't just take a picture of the branch. Take a close picture of the tree and a faraway picture of the tree. We have lots of trees outside. The pictures will help us find our trees.
- Using our cameras helped us see if bird seed was gone.
- Taking pictures helped us see the pinecones closer to see what happened.

(cont.'d on page 9)

(cont.'d from page 8)

- Lots of our pictures helped us remember where we hung our bird feeders.

Did we make good bird feeders?

We think that we did because we think that birds ate the seeds.

Someone wondered, did some of the birds like the Crisco and some of the birds just like the seeds.

New experiments for next year.

Now we know good places to hang bird feeders, next year we can try other ideas.

Next year, can we make some bird feeders that have just Crisco.

What else could we use?

Some kids have peanut allergies so we can't use peanut butter. Should we use honey? Flour and water? Bread? Just put seeds in the pinecones without any sticky stuff?

BirdSleuth says: Sometimes creating a map is a great way to remember where you hang a feeder. That way, if the season and the landscape changes, you still know where to look.

The YardMap citizen-science project is a great way to map outdoor spaces and habitats. Check out what is going on at yardmap.org.



Barred Owl
by Anna
Grade 8
Tualatin Valley
Academy
Hillsboro, OR
Mr. Phil Kahler



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



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



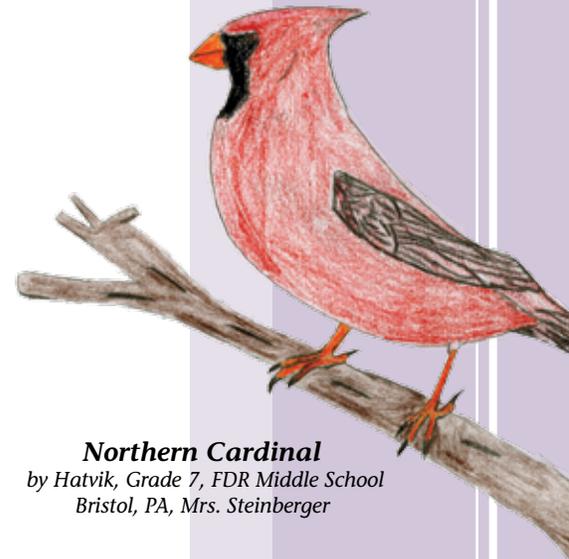
Bird Sculpture
by Christian, Grade 7, FDR Middle School
Bristol, PA, Mrs. Steinberger



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



Townsend's Warbler
by Angelica, Grade 7,
Tualatin Valley Academy,
Hillsboro, OR, Mr. Phil Kahler



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



Red-tailed Hawk
by Max, Rye Junior High School
Rye, NH, Ms. Ellwood

The Number of States Recording Mourning Doves

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

Question

How has the range of the Mourning Dove in North and Central America changed during the past six winters?

Introduction

I chose this question because every time we go outside we see a lot of Mourning Doves. This year we have had sports practices cancelled because of the heat and school closings because of the cold. I don't know if the weather is causing more birds to come to the bird feeders, or if there are always lots of Mourning Doves. The Mourning Dove is common throughout the country all year long. They perch high up telephone wires and tree branches and they forage for seeds on the ground.

Hypothesis

H1: The range of Mourning Doves has gone further south this winter as opposed to the past six winters.

H2: The range of Mourning Doves has gone further north this winter as opposed to the past six winters.

H0: The range of Mourning Doves hasn't changed the past six winters.

Variables

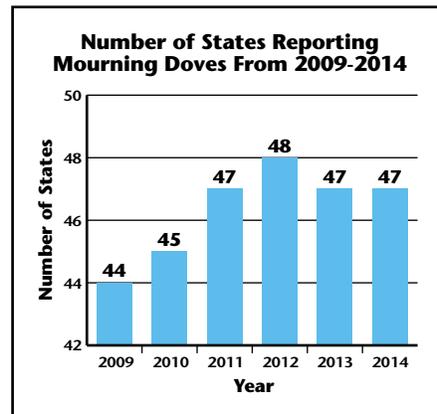
My independent variable is time (year) and my dependent variable is the range of the Mourning Dove.

Procedure

1. Go to eBird (eBird.org)

2. Click on Explore Data
3. Click on Species Maps
4. Click the bar labeled "date"
5. Change the date to January 2014
6. Type Mourning Dove into the species bar
7. Record every state in the U.S where purple shows up
8. Repeat and set the year to 2013
9. Repeat and set the year to 2012
10. Repeat and set the year to 2011
11. Repeat and set the year to 2010
12. Repeat and set the year to 2009

Results

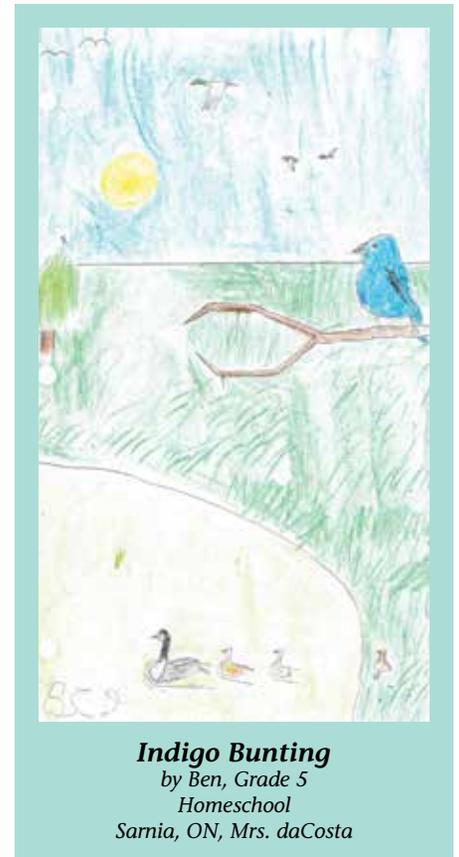


Analysis

In 2012, the most states (48) reported the Mourning Dove. The fewest states reporting Mourning Doves was 44 states in 2009. More states have been reporting Mourning Doves recently.

Conclusion

Based on these data I can conclude that the range of Mourning Doves has spread to more states during the past six years. This supports the hypothesis that the range has gotten larger. This study could have more data to compare if I had recorded more than just six years. Other years could have different ranges. For this reason, I question whether or not Mourning Doves



react strongly to long term climate changes because they didn't change much over this past year.

Bibliography

- All About Birds. Web. 13 Jan. 2014. allaboutbirds.org/guide/Mourning_Dove/id.
- Emiley, A., and T. Dewy. "Zenaida macroura Mourning Dove." Animal Diversity Web. Web. 13 Jan. 2014. animaldiversity.ummz.umich.edu/accounts/Zenaida_macroura/.

BirdSleuth says: Data exploration can be very simple and can result in fascinating patterns and findings! We've posted Arjun's raw data online. Take a look and determine for yourself if the population range in January has expanded north or south over the past six winters.

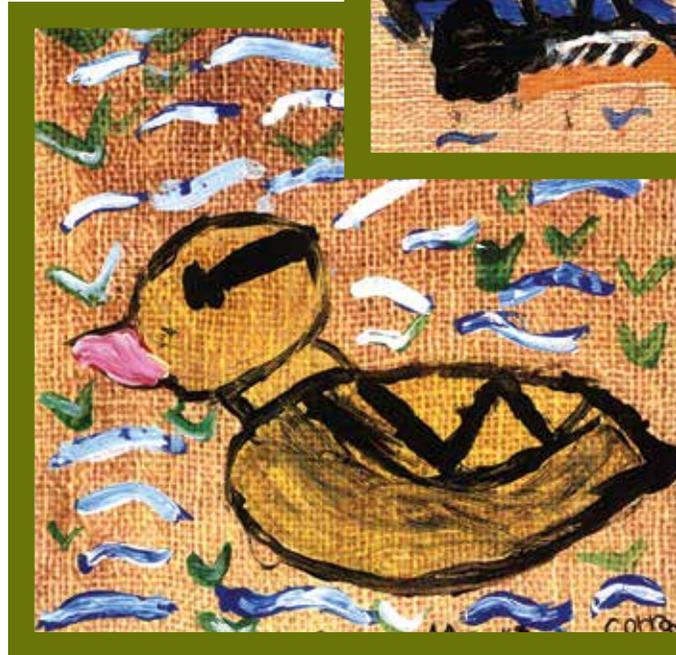
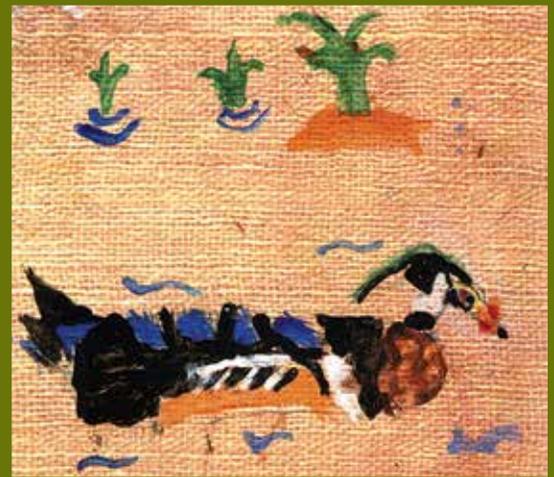
birdsleuth.org/student-publication/bsi2014/

A Wood Duck's Life

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

It was a sunny morning at the Colville River where birds sing songs and cattails grow along the edge. The Wood Duck hen has a tear-drop eye and brown body so she can blend into bushes from predators. The chicks are downy yellow and brown before they get their flight feathers. One day a Wood Duck hen, chicks and drake were searching for food. They heard a little raccoon coming towards them. The drake and his buddies started to fly and squawk so the hens would know about the raccoon. The Wood Duck hen and chicks swam off to hide in bushes from the raccoon. The hen, drake and chicks came back to see if the raccoon was still there. He was not there so the drake went back with his buddies and the hen continued to teach her chicks how to find food. They went to water so they would have more food and it is safer there. The chicks will spend eight weeks learning from their mom. They will then be juvenile and on their own.

Wood Duck Drake
by Drake, Grade 2
Kettle Falls Elementary
Kettle Falls, WA
Ms. Smith



Wood Duck Chick
by Madison,
Grade 2
Kettle Falls
Elementary
Kettle Falls, WA
Ms. Smith

The Wood Duck Hen in Water Trouble

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

One May afternoon Wood Duck hens flew swiftly to look for nesting boxes. They looked and looked until they found some. The pond was good and all, but it looked like a place for predators so the hens went somewhere else. They found another place. Dasey Pond looked safe, so they stayed there. It was a windy day. On the pond there was a hen with a beautiful, blue speculum. She flew off to find a nesting cavity. It was time to lay her eggs.

When she found the right nesting box she started laying her eggs. She pulled out her downy feathers and laid them on the nest. After that she laid all of her eggs. In 30 days all of the chicks hatched. The hen jumped out of the nesting box with her chicks to go eat. The chicks followed the hen to the pond. "Plop!" They heard a sound. It was a snapping turtle, but they did not notice. Then they heard "thwik, thwik." The snapping turtle was eating a fish. After it ate the fish it went after the chick. The chick dove under the snapping turtle! The chicks hid in the tall grass and the hen flew to the tree and perched on a branch. The snapping turtle left to find an easier meal.

The snapping turtle never messed with the Wood Duck hen again and it never came back!



The Wood Duck Chick
by Kiya, Grade 2, Kettle Falls Elementary,
Kettle Falls, WA, Ms. Corvino

The Call of the Common Loon

by Sagarika, Grade 7
Odle Middle School
Bellevue, WA

When I went to Waterton National Park in Canada, I heard a magical sound from a little diving bird.

Last summer, my family and I went to Waterton National Park in Alberta, Canada. We were there to see as much diversity of wildlife as we could. We had seen a few bears, mountain goats, deer, and different types of birds.

On this day, we were planning a trip to Cameron Lake. As the sun began to set, we reached Cameron Lake, a quiet, isolated lake about two to three miles long. It

was a beautiful turquoise lake, surrounded by forests on the sides and a snowy mountain that jutted at the far end of the lake. The mountain was mostly bare but had one glacier on it. The sparkling snow on the glacier glowed against the orange and pink of the sunset sky. The shimmering blue water showed a wavy reflection of the mountain and a flock of birds flew overhead. For now, I was occupied searching for a little gray bird that kept flying from one tree to the other and singing with all its might. It was a little Gray Jay. At last, when he rested for a few seconds, I got a quick pictures of him.

That was when I heard that magical sound. It was a howl though the fog rising from the lake. It was the cry of the wild, the call of the Common Loon. Again the loon called. I quickly ran up to the dock.

When that loon cried out its howl, a chill of pleasure ran through me. I had wanted to hear the elusive call of the loon ever since I knew about it. It was a long forlorn mysterious call that resonated through the fog. In the clearing of the mist, I could just barely see the silhouette of the Common Loon. She quickly looked around and dove into the water. Tiny ripples showed where she was swimming. When she popped up a few feet away, she was holding a silver fish in her mouth. She threw the fish in the air, caught it, and gobbled it up. She faced toward the far part of the lake and called to another loon. I could just hear a faint reply back. The loons kept calling back and forth, back and forth. This was magical to me. I had always wanted to hear the loon's famous call and now they were calling back to each other right in front of my eyes. "Where are you?" howled one. "I am here," replies the other one. Common Loons are usually solitary, but I could hear them making conversation. They use their special call when it's foggy and misty to figure out where the other Common Loons are.

My new Common Loon friend began to swim to another area of the lake, hidden by the thickets of the forest. It was time for me to go, too. But as I left, I knew I would never forget the call of the Common Loon and the day I heard it. The magic of that moment will live on with me.

The common loon

I heard a common loon
It yodels at the moon.

Sometimes instead of her yodel she does her wail
It looks like she's calling a mate.

When she sees her mate she sings a lovely tune
Yodel, yodel, wail goes the common loon

The drawing shows a Common Loon with a black cap and a black and white striped body, standing on a snowy or icy surface.

The Common Loon
by Colin, Grade 5, Our Lady's Christian School, Erie, PA, Ms. Carone

BirdSleuth says: We love this poem! Have you ever heard a loon call? It's breathtaking.

On a technical note, only males yodel and they will make this call while aggressively announcing their territory or when returning to lakes in late spring where they mate. Yodels are unique to each individual.

My Trip

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

I could hear the pitter-patter of the rain on the roof of the bus. It had been raining ever since I got to school that morning and it had not stopped. We were on our way to Fernhill Wetlands. You could hear the soft hum of the heater blasting as much heat as it could. I had been moved to the front of the bus by our principal. Why? I am not really sure. You could hear the conversation going throughout the bus. I had my binoculars in my hand and I was fixed at the sights. After many minutes of rumbling and chatter, we arrived at our destination. We had arrived early, so our teacher, Mr. Kahler, began to kill some time. The bus shut off so we could hear him speak and for less than two seconds all you could hear was the rain crashing on the roof. Then he began to explain what we were to do on this trip but I became distracted by the cold rush of air that brushed against my neck. I noticed a friend of our teacher,

Mr. Gatchet had entered the bus. We all began to discuss birds we might see on this trip. My attention was caught when someone said that we might see a Bald Eagle. I know this bird is commonly seen, but something about how majestic it is consumed my attention.

We walked out of the bus and went to a covered area. As soon as we got there, my teacher and his friend began to whip out their telescopes. In less than two minutes, they had found a bird. I was lucky enough to be the first to identify it. To my surprise, it was the bird that I wished to see most on this trip, a Bald Eagle. I didn't get to see the eagle for long, but for the short period of time that I did, I was in complete awe. Just looking at it made me think, how could God make such a majestic creature? Now, I understand why we chose such a free and majestic creature to represent our country. That was only one of the beautiful birds we saw on that trip. The rain had gone down to a drizzle now, so our teacher decided it was time for us to walk around and see more species.

The rain started to fall again and with every step, my shoes and socks



by Denise, Grade 6
Sebastian Charter Junior High
Sebastian, FL, Ms. Michos

became more and more damp. The rain fell on the top of my head and down my face but I paid no attention. My focus was taken by all the beautiful birds I saw. As we got to the corner of the pond we found a shelter and we all huddled together in hope that we could stay warm. My hands were so cold I could barely adjust the focus on my binoculars. In the distance I saw something that looked like a white flamingo. I was so amazed how white its feathers were. It wasn't long after that I was told that the bird was a Great Egret. The time seemed to pass by so fast. The next thing I knew, I was back on the bus with the familiar hum of the old heater.

You will know this bird by his legs of green. And oh his mighty black face can be seen.

A horse like sound of whee-hee-hee all day. The Sora waits to come out in May.

Hanging by the Swamp a whiny you may hear. This rail calls his mate, who's awaiting oh so near.

Sora
by William, Grade 5
Our Lady's Christian School
Erie, PA, Ms. Carone

by Tessa, Grade 2
Kettle Falls Elementary
Kettle Falls, WA, Ms. Smith

Bird Nest Sculpture
by Rhiannon, Grade 7, FDR Middle School
Bristol, PA, Mrs. Steinberger

BirdSleuth INVESTIGATOR

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To learn more about BirdSleuth, visit **birdsleuth.org**

We would like to thank our student employees 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:

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Cornell University

by Romeo, Grade 7
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Mrs. Steinberger

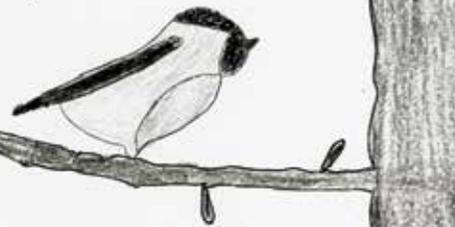


Chickadee

A bird goes by saying Chick-a-dee-dee
and everyone knows listening to it is key.

I look at this bird and it starts to sing
then see something on the edge of his wing.

On top of his head he has a small black cap
he goes up to his bill with a nod and starts
to tap tap tap.



Chickadee

by Abby, Grade 5, Our Lady's Christian School, Erie, PA, Ms. Carone

Dear Educator

Feeding birds is an easy way to watch birds and provides a great setting for conducting an experiment as we see in this year's edition of *BirdSleuth Investigator*. From looking at types of seed, to feeder placement, to impacts of human activity, today's students are already becoming the investigators of tomorrow.

With only 36% of students prepared for college-level science by the time they graduate (ACT, 2013), quality STEM education is more important than ever. We would like to thank you for the work you do to support STEM learning. With the pressures to reach particular standards, strict budgets, and unforeseen challenges, teaching STEM is not always easy. The BirdSleuth K-12 team recognizes this and is always working to support teachers.

It is a pleasure to showcase the hard work done by students across the country through *BirdSleuth Investigator*. We hope the submissions you explore in this edition will inspire students to begin their own investigations and share them with us.

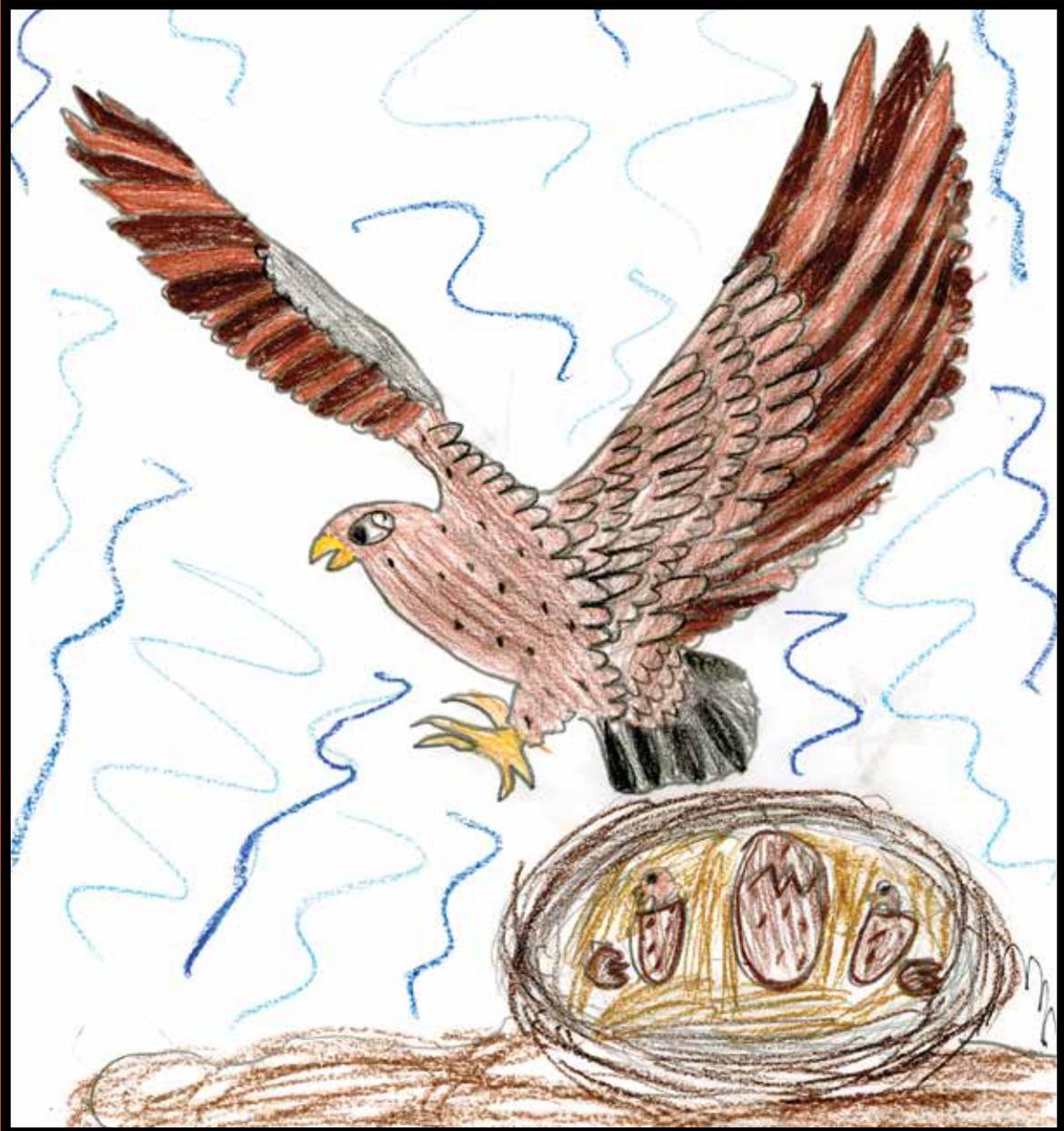
Sincerely,

A handwritten signature in black ink that reads 'Ileana Betancourt'.

Ileana A. Betancourt
Editor, *BirdSleuth Investigator* 2014



Guide your students as they dig into this issue of *BirdSleuth Investigator*.



by Lillian, Grade 6, Sebastian Charter Junior High, Sebastian, FL, Ms. Michos

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

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