



Science reports  
and original art  
for and by  
students

**BirdSleuth**  
**INVESTIGATOR**  
**2020**



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## Dear Students

In many ways, 2020 was a challenging year. With schools and families around the country adapting to the reality of remote learning and a global pandemic, I thought that there would not be enough studies submitted to publish another edition of *BirdSleuth Investigator*. I was happy to be wrong! We received a lot of high-quality entries, and while it may have taken a little longer than usual to put together, we're thrilled to share this issue with everyone.

I hope the studies, poetry, and artwork in this issue will inspire you to get out there and make observations, ask questions about



*Hummingbird by Elise  
Grade 7, Minnehaha Academy  
Minneapolis, MN, Mrs. Humason*

your world, and share your discoveries. A special thanks to our friends at Wild Delight® Outdoor Pet Products, 3-D® Bird Food, and Better Bird™ who generously support our work to celebrate student curiosity and creativity, even during difficult times.

Sincerely,



Kelly Schaeffer  
Editor *BirdSleuth Investigator*

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**Front Cover:** *Crow on the Gorge* by Anna, Grade 5, Homeschool, Victoria, BC

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*Belted Kingfisher by Natalya, Grade 9  
Esquimalt High School, Victoria, BC*



*Marvellous Spatuletail and pollinators by Finley, Grade 2  
Homeschool, Fortson, GA*



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

## How Barometric Pressure Affects Black-capped Chickadees

by Eden and Olivia, Grade 7  
Tualatin Valley Academy  
Hillsboro, OR  
Mr. Kahler

### Introduction

Black-capped Chickadees are found in deciduous or mixed woodlands, and normally form in small groups. They can be observed at the Tualatin Valley Academy bird blind. Insects, berries, and birdseed compose most of their diet making the bird blind a great habitat for Black-capped Chickadees. The question was if barometric pressure affects the number of Black-capped Chickadees. The hypothesis was, if the barometric pressure is over 1020 millibars then we will see more Black-capped Chickadees at the feeder. This question was chosen because it is important to know what affects birds' eating habits, and how to predict them.

### Hypothesis

The hypothesis was, if the barometric pressure is over 1020 millibars then we will see more Black-capped Chickadees at the feeder.

### Materials and Methods

To collect data at the bird blind the following materials were used:

- Pencil
- Bird binder
- Binoculars

Bird data were collected at the school's bird blind once or twice a week for thirteen weeks. Weather data such as barometric pressure was collected from the Weather-Bug weather station. Before walking to the bird blind, information about the barometric pressure was recorded to analyze how barometric pressure affected the birds at the bird blind.

The bird blind next to the feed-

ers, behind Tualatin Valley Academy was used to observe Black-capped Chickadees. The birds were observed for 15 minutes for 13 days. The data was recorded in our science class. At the bird blind there was a wide variety of birdseed used in the feeders as well as on the ground. Using binoculars, the number of birds visiting the bird blind was recorded.

### Variables

#### Independent Variable:

**Barometric Pressure** The independent variable is the barometric pressure. It cannot be influenced.

#### Dependent Variable:

#### Number of Black-capped

**Chickadees** What was studied was the number of Black-capped Chickadees that came to the bird blind.

**Constant Variables:** I will keep constant the time, location, type of feeder and the seeds.

### Results and Analysis

The prediction was that more Black-capped Chickadees would be seen at the feeders when the barometric pressure was over 1020 millibars. The data shows that when the barometric pressure was under 1020 millibars, more Black-capped Chickadees were seen at the feeders, than when the barometric



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

pressure was higher.

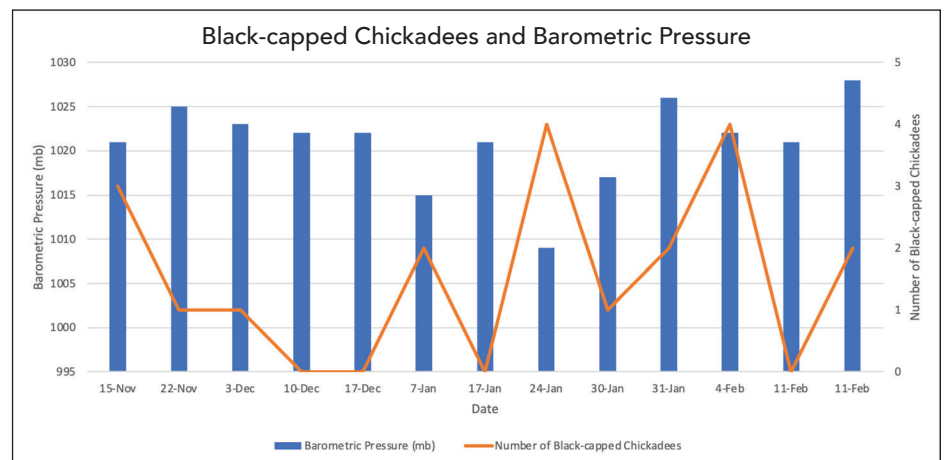
The graph shows how barometric pressure affects Black-capped Chickadees. The left side shows the barometric pressure, the right side shows the number of Black-capped Chickadees, and the bottom of the graph shows the date the data was recorded.

### Discussion and Conclusions

The data appears to show how barometric pressure affects the number of Black-capped Chickadees seen. The hypothesis was proven wrong because more Black-capped Chickadees were seen when the barometric pressure was less than 1020 millibars. Temperature and cloud cover were other possible confounding factors not presented here. If more time had been spent collecting data at the bird blind, there might have been more data for comparison.

The data fluctuated rather

(cont.'d on page 5)





## Does It Matter If the Bird Feeders Are Near Chickens or Not?

by Brooks, Grade 6  
New Canaan Country School  
New Canaan, CT  
Ms. Mackey

### Purpose

The objective of this study was to determine whether it mattered if the birds ate around chickens or not.

### Hypotheses

I hypothesized that more birds would eat around the chickens. I made this hypothesis because there was also chicken food nearby, which may have attracted the birds.

### Variables

**Independent Variables:** Near chickens or away from chickens

**Dependent Variables:** Amount of birds at each feeder

**Constants:** Color, time, food, height, placement of feeders

### Materials

Tube feeders, black oil sunflower seeds, computer, datasheet, and a pencil

### Methods

This experiment was conducted in Norwalk, Connecticut. Feeder one was located in a tree in a backyard. Feeder two was located next to a chicken coop, on the right. There was a tree next to feeder two. The house was in front of feeder one and there was a chicken coop and run, as well as two bunny hutches near feeder two. The closest structure to feeder one was a shed and for feeder two, a chicken coop. The closest streets/highways were Ponus Avenue near feeder one, which was not busy, and the Merritt Parkway for feeder two, which was extremely busy. Feeder one was about 1.5 meters off the ground and 40 meters away from feeder two which was also 1.5 meters off the ground. There were four perch-

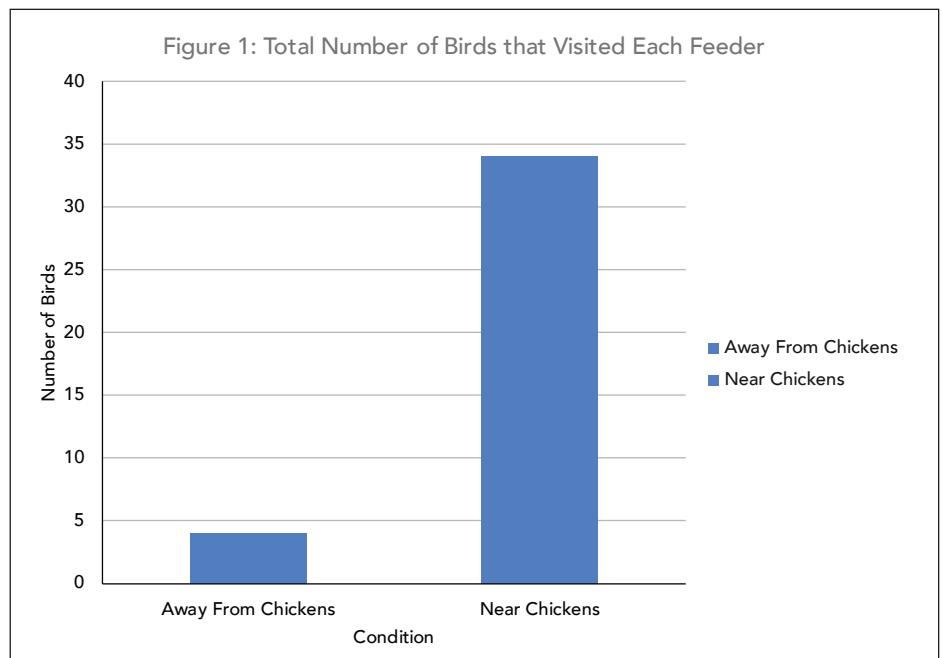


es and openings on each feeder. Black oil sunflower seeds were used.

The observations took place on a rock wall. The wall was about 20 meters from each feeder. Binoculars were not used for the observations. The observations were going to be for 10 minutes. The observations began at 7:20 am. Eight observations were conducted. The number of birds at each feeder and the species of birds were recorded on a datasheet.

### Results

A total of 38 birds were observed at both feeders. In Figure 1, the graph shows the number of birds that were seen near chickens and the number of birds that were seen away from chickens. Four birds ended up going to the feeder near chickens, and 34 ended up eating away from the chickens. In Figure 2, the graph shows the species of birds that were found at both feeders. There were seven different species





of birds that went to the feeder away from the chickens. There were three different species of birds that went to the feeder near the chickens.

While the data was being collected, the weather caused no birds to come, and there were a few disruptions. The main temperature range was between 27°F and 45°F. The air pressure stayed about the same with a low of around 29 and a high of 30. There was no rain or snow during these observations. There were also no days with any snow on the ground. On most of the colder days, absolutely no birds came to either feeder. This happened three times. During two observations, there was a dog who ran by as well as a human.

## Discussion

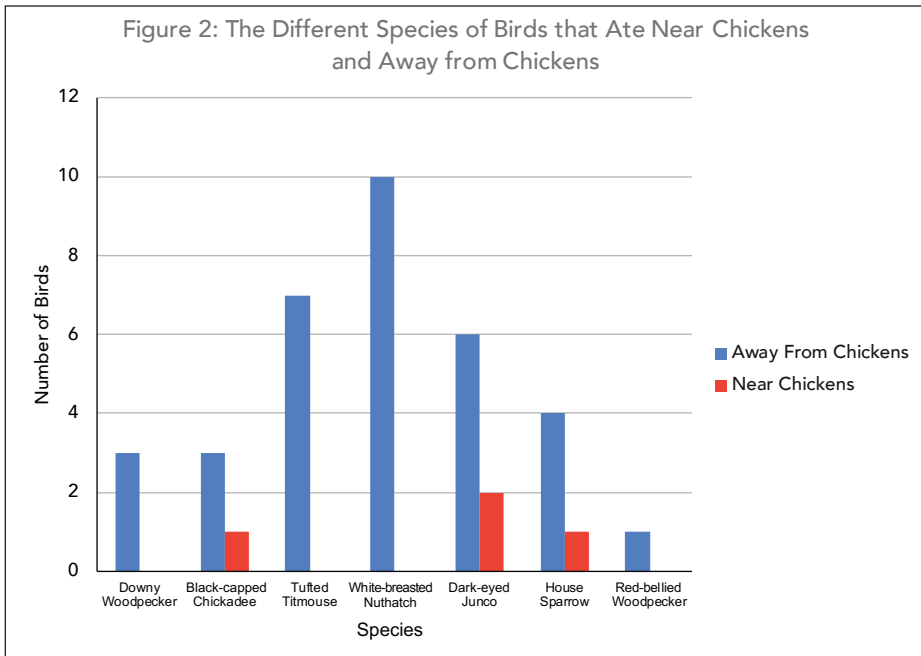
After conducting this experiment, I have acknowledged that birds seem to prefer eating away from chickens. As shown in Figure 1, 34 birds ate at the feeder away from chickens. While the majority of the birds followed the pattern and ate at the feeder away from chickens, House Sparrows, Black-capped Chickadees, and Dark-eyed Juncos visited the feeder near chickens. As you can see in Figure 2, White-breasted Nuthatches visited the feeder away from chickens the most, and Red-bellied Woodpeckers visited the feeder away from chickens the least. Evidently, also in Figure 2, Dark-eyed Juncos visited the feeder

near chickens the most, and House Sparrows and Black-capped chickadees visited the feeder near chickens the least. I believe that I observed more birds at the feeder away from chickens because the chickens scared most birds away from the feeder near them.

There were some possible sources of disruption that may have caused fewer birds to come. The feed was always at least half empty because the birds could eat the entire contents of the feeder within a day. There were also no issues with the observation site except that it was out in the open. There was a dog who might have disrupted the birds' feeding and a few humans as well. The temperature did vary, which may have caused fewer birds to come.

There are some elements that could be improved upon if these experiments were to happen again. The dog could not be let out because that could definitely cause the birds to not get scared. The feeder could have been filled up more so it was always completely full. Also, people could stay away from the observing area. It would be interesting if a different kind of chicken food caused more birds to come because they liked it more. It would also be quite interesting if the stands that the feeders were on were the same height off the ground.

Figure 2: The Different Species of Birds that Ate Near Chickens and Away from Chickens



(cont.'d from page 3)

markedly as more Black-capped Chickadees were recorded when the barometric pressure was lower and fewer when the barometric pressure was higher.

## References

1. Seattle Audubon Society. (n.d.). *Black-capped Chickadee*. Retrieved February 2020 from [http://songs.www.birdweb.org/birdweb/bird/black-capped\\_chickadee](http://songs.www.birdweb.org/birdweb/bird/black-capped_chickadee)
2. Sibley, D. (2003) *The Sibley Guide to*
3. *Birds of Western North America*. 1<sup>st</sup> edition. New York: Knoph
3. Washington Nature Mapping Program. (n.d.). *NatureMapping Animal Facts for Kids*, [http://naturemappingfoundation.org/natmap/facts/black-capped\\_chickadee\\_k6.html](http://naturemappingfoundation.org/natmap/facts/black-capped_chickadee_k6.html)

Date	11/15/19	11/22/19	12/3/19	12/10/19	12/17/19	1/7/20	1/17/20	1/24/20	1/30/20	1/31/20	2/4/20	2/7/20	2/11/20
Barometric Pressure (mb)	1021	1025	1023	1022	1022	1015	1021	1009	1017	1026	1022	1021	1028
Black-capped Chickadees	3	1	1	0	0	2	0	4	1	2	4	0	2



## Birds in the Cold

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

### Question

What is the effect of the temperature on the number of birds seen at Minnehaha Academy from November 2019 to February 2020?

### Background Information

I chose this question because knowing if you will see many birds out in the winter will tell scientists and casual bird watchers if it is better to go on a walk to find birds or just observe a feeder. The temperature in Minneapolis will continue to decline as the winter goes on. According to my research birds will go to feeders often in the winter because, being warm-blooded, they need lots of calories to stay warm. Some birds also have to gain a little bit of fat to keep warm. Birds also need feeders because a lot of the food they usually eat is covered by snow.

### Hypotheses

- H<sub>1</sub>:** If the temperature is lower, then fewer birds will be seen.
- H<sub>2</sub>:** If the temperature is lower, then more birds will be seen.
- H<sub>0</sub>:** If the temperature is lower, then the amount of birds seen will not be affected.

### Materials

- A variety of feeders and seed
- Outside thermometer or device with Google to find the temperature

### Procedure

1. Set up a feeding station with several feeders and keep them constantly filled with various types of food.
2. Look up and record the temperature.
3. Go to the feeders and record the highest number of each species of

bird seen at the feeders at one time for 10-15 minutes.

4. Repeat steps two and three for nine more trials using the same type of feeders with the same kind of food.

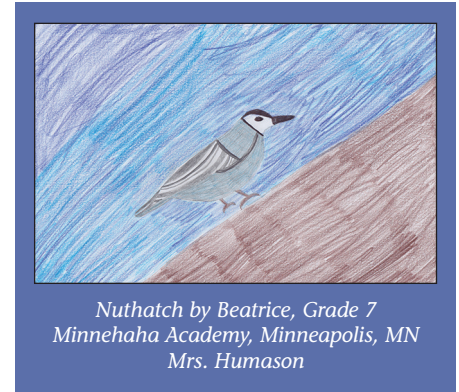
### Analysis

This graph shows the effect of temperature on the number of birds seen. This data was collected over 33 trials. In this data, there is a maximum of 23 birds and a temperature range of 9° F to 60° F. This data shows that the birds at Minnehaha Academy don't prefer warm or cold. We know this because in the graph the trendline is very flat. The trendline does move up by about one or two birds, but that is a very small amount and could have been caused by an error while collecting data.

### Conclusion

Based on this data, we can conclude that when the temperature is lower, you will see the same number of birds as when it is warmer. This supports hypothesis H<sub>0</sub> which states "If the temperature is lower, then the amount of birds seen will not be affected." We can conclude this because the trendline is trending downward, but it is going down by such a small amount that it is basically flat (about two birds over fifty-one degrees).

Some errors that may have happened are, data could've been input incorrectly, and there may have been

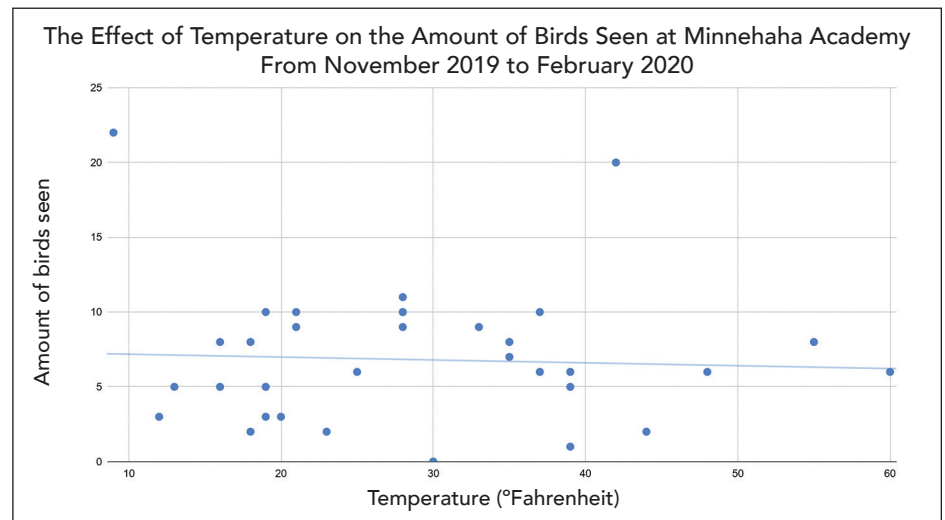


some double counting or failing to follow the counting procedure. Another error may be that some days the bird watching area and bird watchers were louder than others due to playground noise and cars on the nearby road. There were also varying weather conditions on different days.

Some new testable questions could be: What is the effect of type of birdseed on the number of Black-capped Chickadees seen? What is the effect of the number of squirrels present on the amount of birds seen? What is the effect of the weather on the amount of birds seen?

### Works Cited

1. "How Do Birds Cope with Cold in Winter." *Audubon.org*, National Audubon Society, [www.audubon.org/how-do-birds-cope-cold-winter](http://www.audubon.org/how-do-birds-cope-cold-winter). Accessed 11 Nov. 2019.
2. "Seasonally Savvy in Winter." *Wbu.com*, Wild Birds Unlimited Nature Shop, 2019, [www.wbu.com/seasonally-savvy/winter/](http://www.wbu.com/seasonally-savvy/winter/). Accessed 11 Nov. 2019





## The Effect of Gender on Time Spent Sitting on Eggs

by Kadrian, Grade 6  
Essex Middle School  
Essex, VT  
Mrs. Dunn

### Introduction

One day when I was looking at the different live cameras at bird nests and feeders, I realized that the Red-tailed Hawks had eggs. I noticed that the male and female bird swap places every few hours. The one that was out of the nest sat on the eggs, and the one that was sitting on the eggs left. Then I started to wonder if the bird's gender had to do with how much time they sat on the eggs.

### Hypothesis

My hypothesis was that the female hawk will spend more time sitting on the eggs, and the male will spend more time hunting for food. I think this because that's something we see in other animals, and because the female was the one to lay the eggs, so she might have some kind of attachment to them.

### Materials and Methods

Each day at 9:00 am and 9:00 pm, I would rewind the live Red-Tailed Hawks camera 12 hours back, and fast forward it slowly until I saw a bird leave or come to the nest. Then I would pause the video and record the time the bird arrived/left and their activity.

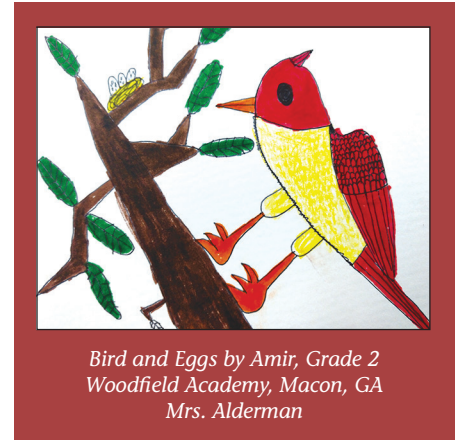
### Results and Analysis

Surprisingly, the female hawk sat on the eggs 78% of the time. I think that was mainly because the female was always the one to sit on the eggs overnight. If you look at the chart that doesn't include night, the times spent sitting on the eggs are pretty close for both birds. Also, if you compare the two pie charts, you can see that in the chart that includes night the female sat on the eggs almost 20%

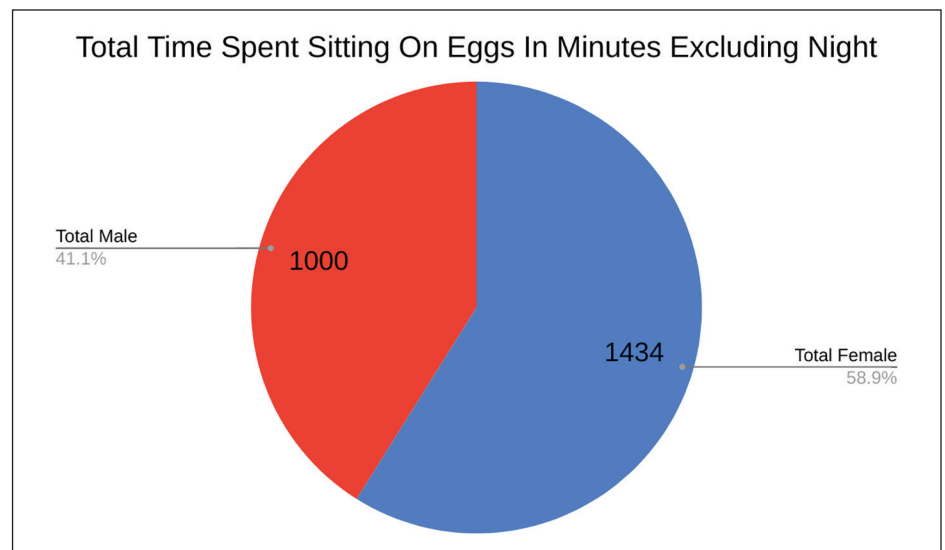
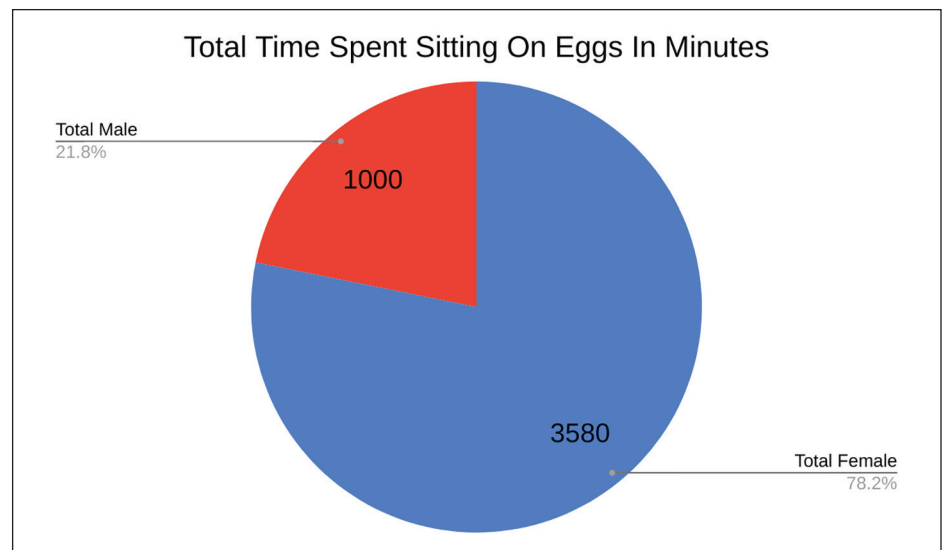
more than in the chart that excludes night. There was one time that the male hawk was at the nest for about a minute but didn't sit on the eggs, so I didn't record that.

### Discussion and Conclusion

My hypothesis was that the female hawk would sit on the eggs more than the male because that's something that happens with other animals and since the female hawk laid the eggs, she could have an attachment to them. My hypothesis was correct. The female Red-tailed Hawk spent more time sitting on the eggs than the male even when sitting on them overnight wasn't counted. It was interesting to see that it was always the female hawk that sat on the eggs overnight. If I were to do



this study again I would record how often the eggs are left alone, and which bird is leaving it, to see which bird is more willing to leave them alone.





## Do Birds Prefer Feeders On Poles or On Trees?

by William, Grade 6  
New Canaan Country School  
New Canaan, CT  
Ms. Frey

### Purpose

The objective of this study was to find out whether birds prefer feeders on trees or poles.

### Hypotheses

I hypothesized that birds would prefer the feeder on the tree over the feeder on the pole. I made this hypothesis because trees offer the birds protection so I thought they would go to the feeder on the tree.

### Variables

**Independent Variable:** Where the feeders are located

**Dependent Variable:** The number of birds and species that come

**Constants:** Time, location, feeder, seed, observer

### Materials

Two tube feeders, seed, journal, pen/pencil, pole, tree, observation chart

### Methods

The birds were observed in New Canaan, Connecticut. The place where the feeders were hung had many trees on one side and a house on the other. It also had a hill on one side. In the woods there was a creek. The house was about 6 or 7 feet away from where the feeders were. The nearest street was up a long hill and not many people came down that hill. One feeder was hung on a tree and the other was hung on a pole. The feeder on a tree was 1.5 meters high. The feeder on the pole was 0.8 meters high. The feeders were 6.6 meters away from each other.

The birds were observed from a window inside the house where both feeders could be seen. The feeder on the tree was 10.5 meters away from the window and the feeder on the

pole was 6.3 meters away from the viewing spot. Binoculars were not used during this experiment. The observation's start date was 2/18/2020 and its end date was 3/12/2020. The observations were conducted at 4:30 pm and lasted for ten minutes. Eight observations in total were conducted. The number and species of birds that visit each feeder were tallied. The tallies were recorded on an observation chart.

### Results

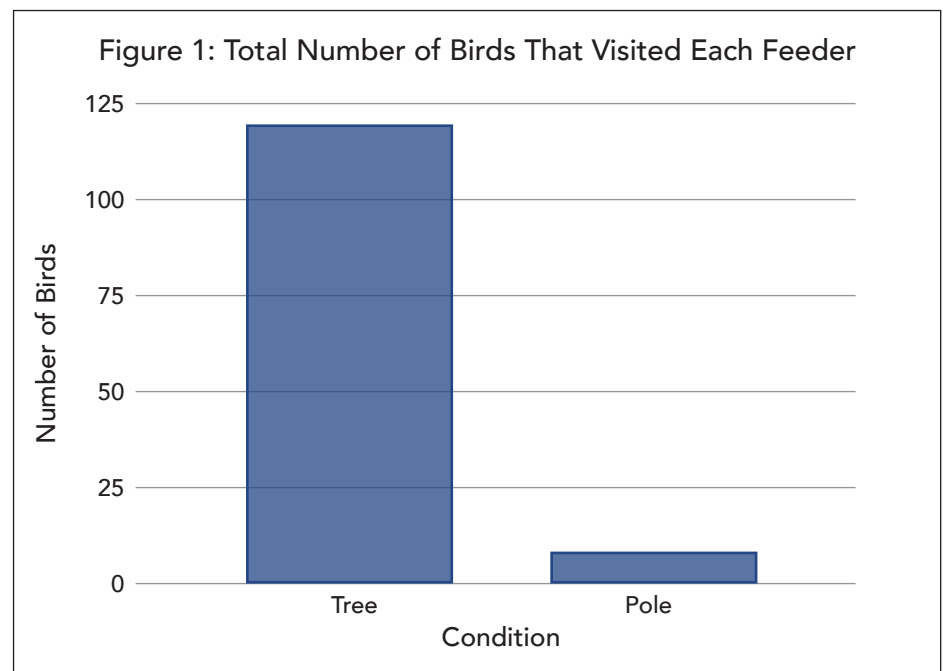
A total of 130 birds were seen at the experimental feeders. Figure 1 shows the total number of birds that visited each feeder. In all, 120 birds visited the tree feeder and 10 visited the pole feeder. Figure 2 shows the total number of each species that visited each feeder. There were a total of nine species of birds seen. All nine species came to the tree feeder. Only four species visited the pole feeder.

The coldest day of the observation was 34°F on 2/20/2020. The warmest day of the observation was 63°F on 3/10/2020. The lowest air pressure was 29.56 on 3/3/2020. The highest air pressure was 30.15 on 3/12/2020. There were 2 days with rain 2/25/2020 and 3/3/2020 and one day with light rain 2/18/2020.

There were no days where there was snow on the ground. There were two times when no birds arrived at the feeders during the ten minute observation. The first was 2/18/2020 and the second was 3/12/2020. There were no observations where there was a disturbance.

### Discussion

The data from this experiment proved that the hypothesis "birds like feeders in trees over feeders in poles" was correct. As you can see in Figure 1, there were 110 more birds that visited the feeder on the tree over the feeder on the pole. As you can see in Figure 2, while most birds came to the feeder on the tree, House Sparrows, Blue Jays, and White-breasted Nuthatches rarely came to the feeder on the tree. As you can see in Figure 2, Tufted Titmice were the majority of the birds that visited the feeder on the tree and White-breasted Nuthatches came the least. For the pole feeder, Downy Woodpeckers came the most and Red-bellied Woodpeckers and Black-capped Chickadees came the least. I think that most of the birds visited the tree because the tree offered protection and many places to stop opposed to the pole feeder that was out in the open.



# INVESTIGATIONS

There were some possible sources of inaccuracy in my study that might have caused my results to be incorrect. The first source of inaccuracy was the feeder sometimes got low on food and forced birds to go to the other feeder. The second source of inaccuracy was I forgot to record the weather on some days and had to go back to get it. The third source of inaccuracy was when I misidentified a bird. The final source of inaccuracy was that there was a construction site near our house and that might have scared the birds away. Most of these inaccuracies rarely happened other than the construction site being near the spot of observation. I also noticed that crows were coming to the feeder and scaring away other birds that were trying to come to the feeders.

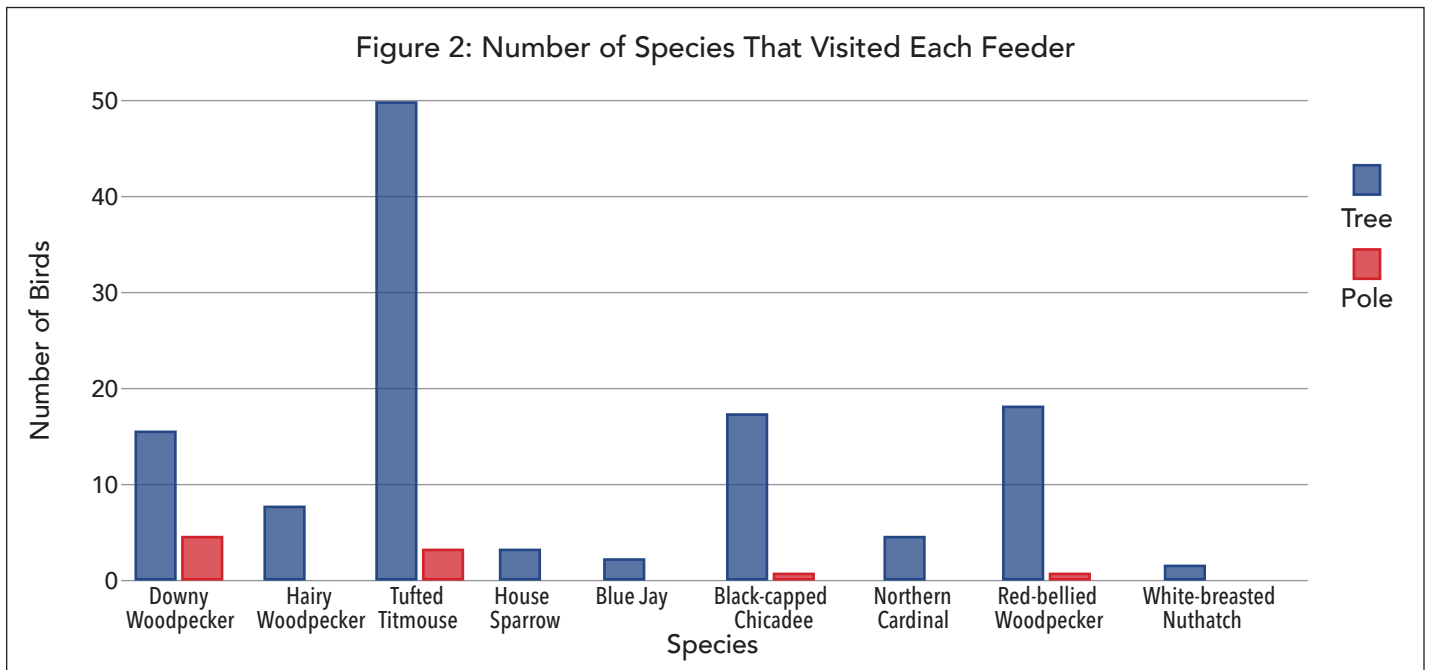
There were some factors that I could improve on if I were to do this experiment again. For the first inaccuracy, I could have refilled the feeder before each observation so the level of seed would be consistent throughout the experiment. For the second inaccuracy, I could have written down the weather before I started the observations. For the third inaccuracy, I could have labeled the bird as "other" and searched it up



Northern Cardinal by Zoe, Grade 6, Essex Middle School, Essex, VT, Mrs. Dunn

after the observation. For the fourth inaccuracy, I could have moved my observation spot somewhere that would not be affected by construction. It would be interesting to see if

I hung a feeder on a tree with less branches and compare the two feeders. It would also be interesting to see if I put the feeder on a pole underneath a tree.





## Do Birds Prefer to Eat in the Morning or the Late Afternoon?

by Charlotte, Grade 6  
New Canaan Country School  
New Canaan, CT  
Ms. Frey

### Purpose

The objective of this study was to determine if birds preferred to eat birdseed in the morning or in the late afternoon.

### Hypothesis

I hypothesized that birds would eat more food in the morning. I made this hypothesis because I am more hungry in the morning than in the late afternoon.

### Variables

**Independent Variable:** Time of day

**Dependent Variable:** The number and species of birds that come to the feeder

**Constants:** Same food, same feeder, same location, same color feeder, the same observer

### Materials

One tube feeder, Black-oil sunflower seed, olive oil, pole, observation sheet, bird packet, and rubber gloves

### Methods

This experiment tested to see if birds like to eat food in the morning or in the late afternoon. The feeder was located in New Canaan, Connecticut. The area that surrounds the feeder was a big open backyard where squirrels and a dog roam the area. There were two large trees in the middle of the yard, and hedges around the perimeter of the house. In this area, the biggest objects in the yard were two trees. On the deck, there was a long pole with a weather station. When it rained

a lot, there was a swamp that started in the back of the yard and in the driveway. The closest building to which the birds were observed was a house. Two doors down from the observation site was New Canaan Country School. The closest streets to the observation site were a fairly busy street that was about 1,000 feet away from where the feeder was located. The feeder was hung 3 meters from the ground. The type of feeder that the birds were observed at was a green colored tube feeder. Inside of that feeder was black-oil sunflower seed. The feeder had four openings.

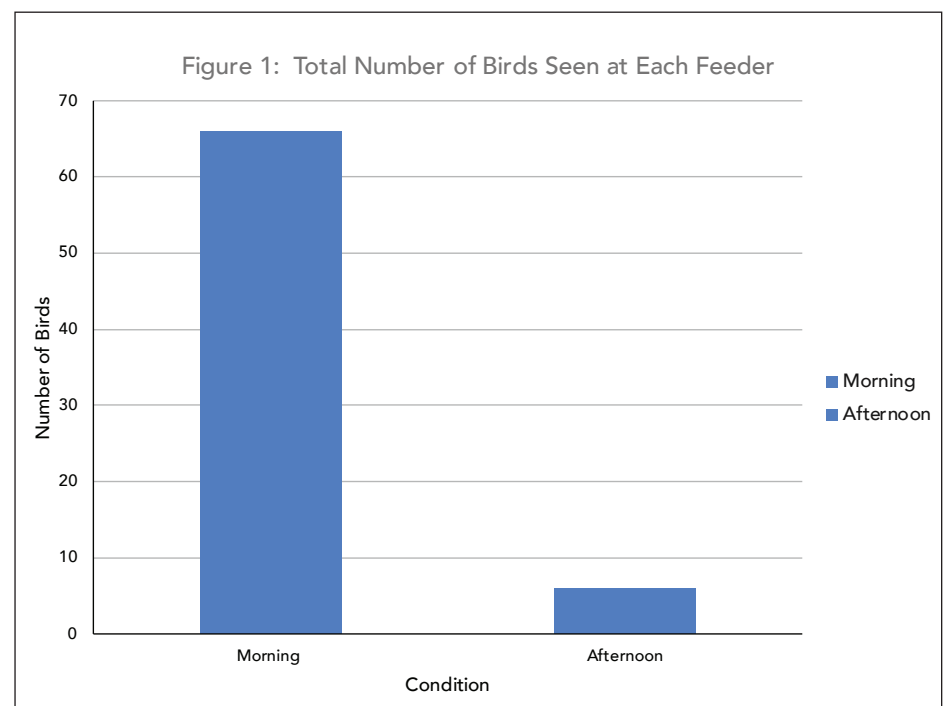
The observations took place looking out a window overlooking the feeder. This window is about 1.8 meters from the feeder. No binoculars were used in this experiment. The start date of the observations was February 16, 2020. The end date of the observations was March 14, 2020. The observations were conducted at 7:20–7:40 am for the morning time and the afternoon time was from 4:30–4:40 pm. The observations were 10-minute incre-

ments. A total of 10 observations were conducted. The number and species of birds that came in the morning versus the number and species that came in the late afternoon was recorded. The observations were recorded on an observation datasheet.

### Results

A total of 72 birds were observed in the green tube feeder in a New Canaan backyard. Figure 1 shows the total number of birds that visited each feeder in the morning (left) or afternoon (right). Sixty-six birds came to the feeder in the morning, and six birds came to the feeder in the afternoon. Figure 2 shows the different species that were observed and when they visited the feeder. A total of 13 different species visited the feeder in the morning and in the afternoon. Ten different species came to the feeder in the morning. Three different species visited in the afternoon.

The temperature during the observations ranged from 25.2–52.3 degrees Fahrenheit. The air pressure ranged from 29.21–30.12



inches of mercury. During the first, second and fourth observations, it was raining and there were no birds. Many of the days it was windy and there was no snow on the ground or in the air. The only disruption was in observation number 1, a squirrel tried to knock over the feeder.

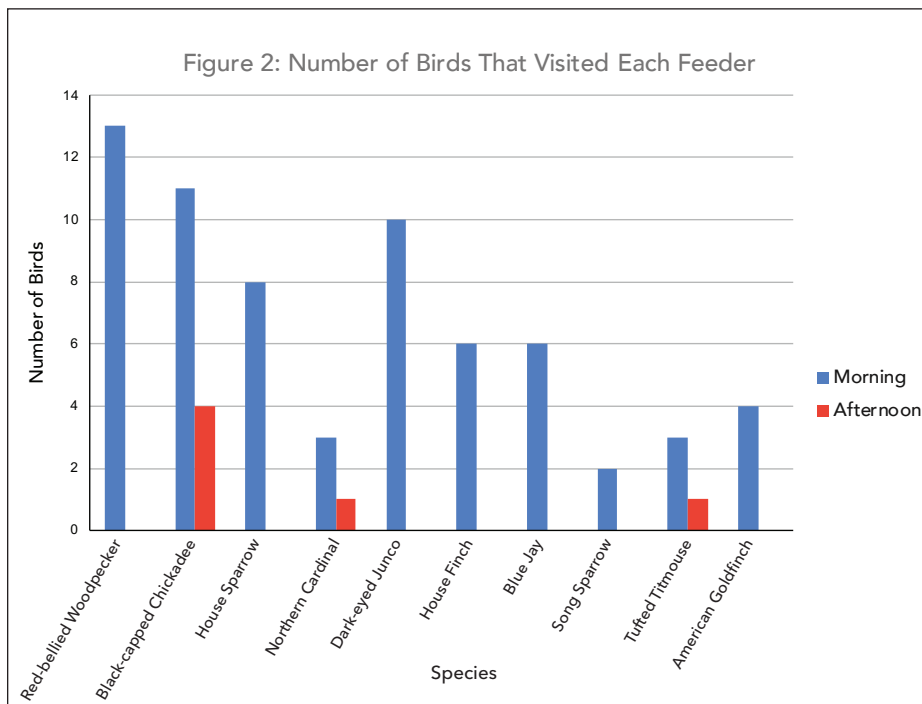
## Discussion

The data from this experiment proved the hypothesis that birds prefer to eat in the morning rather than the afternoon. As you can see in Figure 1, 60 more birds visited the feeder in the morning. While most species came in the morning, Figure 2 shows that the Northern Cardinal, Tufted Titmouse, and Black-capped chickadee came in the afternoon. The Song Sparrow came the least to the feeder in the morning. The Red-bellied Woodpecker came the most in the morning. In the afternoon, the Northern Cardinal and the Tufted Titmouse came the least, while the Black-capped chickadee came the most. I think that the birds are more hungry for breakfast than they are for a

late afternoon meal. I think this because birds just woke up and need to fuel themselves.

There were some possible sources of inaccuracy in my study that may have caused the data collected to be incorrect. Twice the feeder ran low on the seed. This may have caused birds not to come to the feeder. One night, the feeder had to come inside because of low food levels. Once there was a misidentification of a Song Sparrow. A dog roamed the area a couple of times. He did not seem to disturb the bird's behavior.

There are some factors that I could improve if I were to do this experiment again. For example, if I were to conduct this experiment again I would fill up my feeder before every observation. I would also use a guide more often to make sure I am identifying the birds correctly. I would also make sure Baxter (my dog) would not be outside during the observation. It would be interesting to see if I did my observations earlier in the morning. It would be interesting to see if more birds came at 6:45 am.



Downy Woodpecker by Elsa, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason



Hairy Woodpecker by Zoe, Grade 6  
Essex Middle School, Essex, VT, Mrs. Dunn





*Goldfinch by Henry, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason*

**Bird Poem**

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

Flit, twit and tweet.  
Aren't they just sweet?  
Their songs the source of our waking.

Birds surround.  
All around  
working the clock from twelve to  
twelve.

They fly,  
Passing by.  
Living their lives while we live ours.

Though we also collide,  
From sightings to physical interac-  
tions.  
Some purposeful some accidental.

Get your binoculars ready and clip-  
boards poised.  
And maybe we'll see some  
you never know.

Goldfinch's  
Acrobatic birds  
Flying and  
Spinning.  
Landing on  
seed heads  
And bouncing  
around.  
Like a mini circus  
For birds.  
Now I understand  
Why they don't  
Get eaten much  
Because the predators  
are watching the Bird World  
Series. The flyer  
Streaking across the sky with  
The opponent in tow  
Bench warmers eating seeds  
Big old bird coaches chirping  
at the flyers to go faster  
It's a paradise for birds.  
Birds of a yellow  
and black feather  
are acrobats together.  
It's weird to think.  
such a yellow bird  
Comes from blue eggs  
Like the sky. A clutch  
Of blue that turns bright yellow.

**My Birdie**

*by Grace, Grade 6  
Essex Middle School, Essex, Vt, Mrs. Dunn*

The little chirps. The swinging of twigs. The squirms and jerky movements.  
My birdie.

The wholesome looks. The calls of distress. The smarts and intelligence.  
My birdie.

The little beak. The beady eyes. The wings full of grace and wonder.  
My birdie.

The round belly. The plump of its wing. The carefully placed nest.  
My birdie.

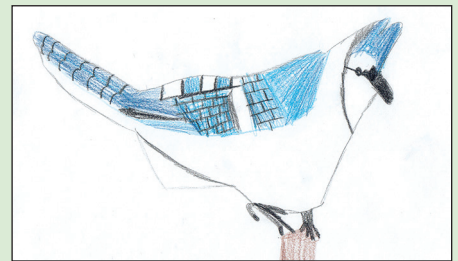
**Goldfinch**

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

**The Blue Jay**

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

As I amble through the autumn wood,  
A breeze above the place I stood  
A flash of black and blue and white  
Of graceful and of weightless flight  
A call of desperate, searching tones  
While on and on and on he drones  
A regal crest upon his crown  
A piece of sky within his down  
I may not know his royal tale  
His futile quests for holy grails,  
His beauty though of which I might  
His streaks of black and blue and white



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

**Mighty Birds**

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

Birds,  
The color of the sky,  
From the autumn breeze,  
Through the winter night.

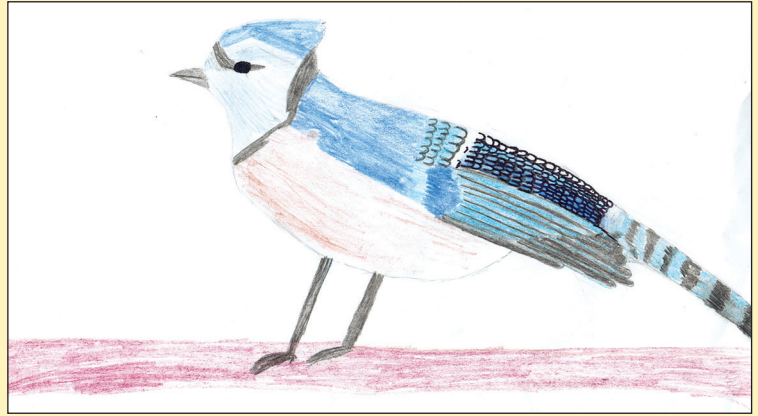
They're always there,  
Soaring high like a kite.  
Like the blissful moon,  
They all are bright.

From here to there,  
They fly in the light.  
Their flocks like clouds,  
Draw a speechless sight.

Their symphony,  
Goes from day till night,  
Then silence surrounds,  
With a peaceful might.



Toucan by Selas-Semira, Grade 7  
Minnehaha Academy, Minneapolis, MN, Mrs. Humason



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



Nuthatch by Leah, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason



Red-tailed Hawk by Natalie, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason



Scarlet Tanager by Essey, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason



Gouldian Finch by Elle, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason

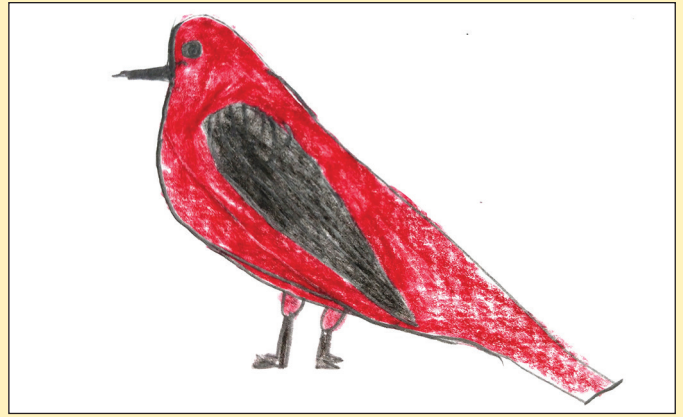


Cardinal by Ava, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason





*Toucan by Max, Grade 7  
Minnehaha Academy, Minneapolis, MN, Mrs. Humason*



*Scarlet Tanager by Avery, Grade 5  
Woodfield Academy, Macon, GA, Mrs. Alderman*



*Junco by Harrison, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason*



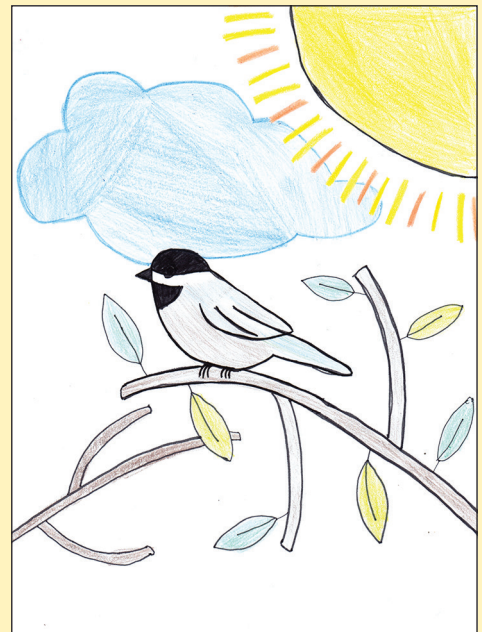
*Bushtits by Tiara, Grade 8  
Tualatin Valley Academy, Hillsboro, OR  
Mr. Kahler*



*Bird Drawing by A.J., Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason*



*Common Loon by Liyu, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason*



*Chickadee by Addie, Grade 7  
Minnehaha Academy, Minneapolis, MN  
Mrs. Humason*



# BirdSleuth INVESTIGATOR

Volume 9, Fall 2020

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Kelly Schaeffer

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*BirdSleuth Investigator* is a publication of works by students participating in K-12 Education, an education program at the Cornell Lab of Ornithology. K-12 Education resources are designed to promote science literacy through hands-on indoor and outdoor science learning experiences and student participation in citizen science.

To learn more about  
K-12 Education resources,  
visit [birds.cornell.edu/K12](http://birds.cornell.edu/K12)

We would like to thank 3-D® Bird Food, Wild Delight® Outdoor Pet Products, and Better Bird™ for their generous support of this publication.

The K-12 Education 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



*Animals that Eat Bird Eggs by Milly, Grade 7  
Minnehaha Academy, Minneapolis, MN, Mrs. Humason*



## Dear Educator

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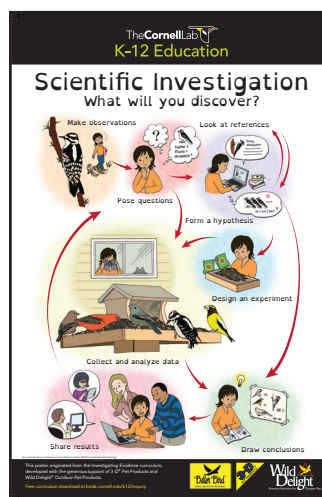


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*Eastern Bluebird by Lydia, Grade 3, Woodfield Academy, Macon, GA, Mrs. Alderman*



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K-12 Education

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