#### How to Identify Birds

By Andy Rehwald

There are many ways to identify birds. The best way to identify a bird is to observe them. Binoculars are used to look at birds up close.

Another way is, to look at them through the binoculars, then at a bird guide. Then you can compare the one you saw with the binoculars to the one in the guide. If the features of the birds match, then you found the correct bird.

Some birds are easy to identify by their underside in flight. The Red-Tailed hawk for instance it is easy to identify, because when it's in flight the tail is red.

The Great-Horned owl is effortlessly simple to identify because of its horned head. You can name so many animals by their features. Some birds are named after their features.

The other way to identify a bird is by its size. A sparrow is very small: it's the size of a fist. An owl's height is the same as measuring to the knee of a human.

Ninety percent of identification of a bird is its sound. The killdeer sounds like it's saying its name, killdeer-killdeer. A male owl's sound is a low long hoot. A female owl's sound is a deep hoot. The female has a deeper hoot than the male's hoot. A pheasant sounds like a very fast chick-chick-chick.

There are many birds around the world surely you can identify them



Calliope Hummingbird by Nadia

## Bird Migration of Spokane

By Cyrielle Criscione

This year Ms. Cassidy's class saw many different species of birds while visiting the pond. Some of them were migratory birds, and others were year-round residents. After doing a little bit of research, we were able to determine which birds migrate here and when people would most likely see them arrive. This is a list of the migratory birds that we saw. The dates are when they usually arrive in Spokane, according to the Spokane Audubon Society.

March 1-7 American Robin Song Sparrow Western Bluebird Red- winged Blackbird Killdeer Western Meadowlark March 8-15 Red-tailed Hawk

March 16-23 Violet- green Swallow Spotted Towhee

March 24-31 Brewer's Blackbird

April 8-15
Ruby-crowned Kinglet

April 16-23 Chipping Sparrow Mourning Dove Orange-crowned Warbler

April 24-30 Calliope Hummingbird White- crowned Sparrow



Northern Flicker by Vinh Nguyen

#### 20 years of Bird

by Ashley Palmer and Mary Phillips

On Wednesday May 23, four students from Mrs. Cassidy's science class interviewed, Marje Benander, a long time resident of the Glenrose Watershed area. She lives right on the edge of the Chase property. The questions we asked her related to bird watching.

*Student-* How long have you lived in the Glenrose Area?

*Marje Benander*- Since 1950, about 51 years.

Student- How long have you been keeping a bird list?

Marje Benander- About 20 years.

Student- Could you explain bird counting to us?

Marje Benander- You watch as many birds as possible while keeping a list for 2 days. Then you take the largest amount you saw in the 2 days and that's your final number of birds for that time.

Student-Which birds do you see the most?

*Marje Benander*- Magpies, House Sparrows, and Starlings.

*Student*-What birds have you seen lately and what are they?

*Marje Benander-* Pheasants, Robins, Red-Tailed Hawks, California Quails, and Nuthatches.

Student-How often do you see new

birds?

Marje Benander- About every 5-10 years, The population changes because of what we plant. The Goshawk is an example of a bird that comes because of the change of habitat.

*Student*-Is it hard trying to keep track of all the birds you see and/or hear?

Marje Benander- Sort of, I have a checklist, and I can tell when the birds on the checklist are declining.

*Student*-Are we the only people you share your information with?

Marje Benander - No, I also share my information with the state, as a part of the Backyard Bird Survey. This event happens during the last week of November through the first week of April, you pick 2 days every 2 weeks.

Student-Would you like to share anymore information with us?

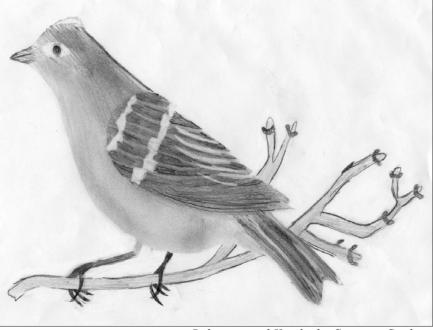
Marje Benander-Yes.

When Chase was built, some of the birds that lived in this area disappeared.

Birds will stick around your yard if you have a variety of foods for them.

Cats and hawks are a major threat to birds.

Bird feeding is something to do all year round, especially during fall and winter.



Ruby-crowned Kinglet by Courtney Gottberg

#### Save Our Birds!!

By Charles McNitt

I have run around the South Hill for four years and the thing I notice the most is the birds. They're disappearing from the area of 29th and Havana, up to Morning Star Boy's Ranch, across Myrtle, and back to 29th. There is a great change in the area on 29th and Havana by the pond. The water is vanishing because of the drought this year.

Another problem is, there is a part of the road on 29th and Havana that splits the forest in two and the Quail have a hard time getting across while avoiding cars without getting hit. The birds do not have enough room to roam, so they wander into

neighboring yards and into schoolyards. On the roads sometimes you can see the birds try to cross, then a high speeding car goes by and the birds run away. The birds may be trying to get to their nests and can't. If these actions keep up, the birds will die in that area, and that will be bad.

The reason I think this way is that the birds on the South Hill are very important to older people like my dad. In the morning he will sit with his cup of coffee and watch the birds play, eat, and sing. This is their amusement. So this is the reason I think we should preserve the areas for the birds.

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# Wildlife

### Wild Wise- Woodland Park Zoo



Roger Crafts, one of the presenters from the zoo poses for a picture. Quotes

"I couldn't stop telling people in my school about this presentation." ~Casey Groh 1st period "I enjoyed the presentation immensely!" ~ Kiril Barrett 4th period

"I had a great learning experience and hope they continue sharing with Chase Middle School." ~ Chase Langalis 6th period "Personally I think the presentation was the best my class has had." ~ Susie Salgado 6th period "The fake cockroaches were really cool!" ~ Stacey Cox ~ 4th period

"I enjoyed learning about the sounds, the appearance, and the habitats of all the animals." ~ Derek Whitbeck 4<sup>th</sup> period "Your presentation gave me a clear understanding of how animals live in a different habitat." ~ Carrie Randall 2<sup>nd</sup> period *Collected by Sara Chambers and Susie Salgado* 

#### Mountain Caribou

By Stacey Cox

On April 19, 2001 Don Katnik visited Chase Middle School to teach about the endangered species, mountain caribou. He came to many science classes to share his knowledge with 8th grade students. Did you know mountain caribou are the most endangered large mammal in the lower 48 states? Currently, there are about 250 mountain caribou in Eastern Washington, Northern Idaho, and Southern British Columbia. Scientists have been researching the decline in population of these animals and what might be causing mountain caribou deaths. The most likely reason is because of their biggest predators, the mountain lion. Fortunately, these mountain lions prey on white-tailed deer more than they prey on caribou. Unfortunately, the whitetailed deer population has been increasing. This causes a growth in the mountain lion population as well. With more mountain lions, the threat towards mountain caribou increases.

Caribou have a very slow reproductive system, therefore the females often die before they have time to give birth. The death rate for mountain caribou increases in the summer because mountain lions travel towards the caribou in higher elevation.

In the winter, mountain lions live in low elevations to avoid snow. Therefore, there is no over-lap between the mountain lions habitat and the mountain caribou habitat during the colder months.

People are learning more and more about these endangered species and there have been several attempts to protect the animals. There have been no successful techniques to save the mountain caribou from extinction.

Most students claimed that they really enjoyed his presentation. "I learned a lot from the presentation. I think it is interesting how they track cougars with the special collars that they showed us," said Eric Burke.

"I was surprised to find out how elevation and seasonal temperatures can effect cougar hunting patterns," said Greg Kleweno.

"I did not realize that two animals who have never seen each other before could have such a large impact on each others lives. An example of this would be the relationship between the white-tailed deer and the caribou," said Christine Wahlstedt.

Kiril Barrett stated, "I always wondered why there weren't any caribou down by my house!"

#### Life Through Different Eyes

By Tara Falkner
You judge him as a sinner
You're sure that there's no doubt
But what if you were the cougar
On the inside looking out.

You say the cougar has no innocence He's partners with the gray wolf in crime He must pay or he'll destroy us It's only a matter of time.

The cougar has adapted A taste for caribou But killing the cougar off What will that do?

He has as much right to the land as any And yet this we deny And the air is just as much his As it is the birds who fly.

We all try to interfere And end up doing worse So maybe we should just sit back And let nature take its course. By Stephanie Smith & Ashley Dillon

The lights went out as animal sounds began to fill the classroom with the boom of a cougar's roar. This was the beginning of the exciting, heart-pounding presentation by the Woodland Park Zoo. When we first walked in to class that morning we were very impressed with the high-tech equipment that they used for their presentation. Roger Crafts and Jen Wilkinson from the Zoo came to Chase on April 12, 2001.

Roger's and Jen's goal is to improve wildlife habitats in Washington. They also want to try to inform people about the environment and how to save it. Roger and Jen taught us that we could help by cleaning up the environment in many different ways and places.

One of the Zoo's goals is to improve classroom and community interest in wildlife by talking to the students about the value of natural things. Another goal is to turn the students ideas into actions by providing many opportunities to explore good career paths and life decisions involving animals and habitats.

Jen and Roger explained to us how animals interact in their habitats and how to identify field marks. One interaction that they explained was about how a foreign species of frogs was introduced into a habitat that contained turtles. This introduction began to cause a sudden and devastating disappearance of the turtles. This disappearance was then linked to the frogs, which began to eat the turtles, causing them to become endangered.

One of the birds that they talked to us about was the Black-Crowned White Heron. It has white spots all over and pointy ears, which make good field marks. Their bill is crossed to tear up food, and they hunt during the day. They also explained to us how the introduction of foreign animals to another habitat could also destroy many of the natural species that had previously inhabited an area.

In conclusion, the presentation by the Woodland Park Zoo was very informative and "greatly enjoyed", as said by Ms. Cassidy's eighth grade students. Roger and Jen taught us many things about how to interact with our environment, how to save the environment, and what kind of ecosystems are in Washington State.

#### Ponderosa Pine

By Natalie Murguia and Adam Oles
As we took a walk outside
Chase, we spotted the Ponderosa Pine.
As some of you already know, Chase
is located at an area where there are
Ponderosa Pines growing. We noticed
the bark is like a puzzle, and kind of
sappy. The trees don't grow next to
each; other they grow apart. The tree
provides many insects for the birds to
feed on. One of the birds that feed on
the insects in the tree is the Northern
Flicker. Ponderosa Pines are just one
of the many different types of trees in
the Glenrose Watershed.



Squirrel by Seth Tyler

#### Squirrel Day

By Seth Tyler

Cattail emerged into the warm morning sunshine. The golden rays were just peeking over the gray mountains in the distance. Cattail sniffed the air for any possible predators and rotated her ears to take in any dangerous sounds. When she was satisfied that she was not in danger, she bounded out over the rocky soil looking for something worth eating. She came upon a sprouting fringecup but decided that she was not in the mood for that particular plant and moved on. Shortly she came upon a patch of wild strawberries and stopped. She began nibbling the plant and was pleased to discover stores of water in the stems and berries. It was a good plant for a squirrel. She heard the birds chirping as they fluttered through the air, landed on the branches of nearby trees, and fluttered off again. She called out to a passing robin that alighted beside her and began pecking for seeds.

"Hello robin," greeted Cattail.
"Hello squirrel," responded the

robin.

"How's the weather up there?"

"Not bad. There is a small storm to the East, but I think that it will change course before hitting us. Either

way, it won't rain on us."

"Thank you. Also have you seen anything dangerous?" asked Cattail.

"The coyote pups in the den to the South are out scavenging and may enjoy a morsel like yourself." The robin began picking at the seeds again.

"Thank you very much."

"Of course," and the robin flew off. One thing Cattail liked about robins is they were always willing to help. That's why she'd called one of them instead of a sparrow or a blackbird or even a killdeer.

"Hmm," thought Cattail in the typical squirrel fashion, "I shall have to watch out for those coyote cubs". Many of Cattail's friends and acquaintances had fallen prey to the coyote mother in past months (which is as far back as any squirrel can remember unless they think very hard—in which case their head may start to hurt).

Just then a strange smell caught Cattail's attention. It smelled like the smoke that people gave off when they flew over the road in their metal boxes. But as Cattail again thought in her squirrel fashion she realized that it was much too close to be coming from the road. Her instincts told her to run, but her squirrelish curiosity got the best of her and she went to inspect the smell. In no time at all she found the source of the smell. A pair of metal, human boxes that made lots of loud sound made it. These boxes were mounted on black

round thingies like all human boxes, but they were smaller than most. There was a large field here and at the end of the field was a crowd of humans. Many of the humans were burning white sticks in their mouths and they were talking amongst themselves. Then one of the humans raised a hand and the crowd quieted immediately. The human made a long speech in human talk and then two of the humans ran down to the boxes. They mounted and then the human that had been talking before raised a flag with lots of black and white squares on it. He began chanting strange words in human talk and then lifted the flag. When the flag was raised the humans sped off across the field in their boxes. When they passed the man with the flag he began waving the flag wildly, which is something that Cattail found very amusing. Then the humans turned their boxes around and came back to where Cattail first saw them. Cattail was infatuated and watched the humans steer the boxes back and forth for many hours. Eventually all the humans left and so did Cattail. Cattail had just witnessed the annual lawn mower races and couldn't remember anything more amazing (Though she had seen them the year before, but squirrels can't remember that far back).

It was while she was lost in thought that it happened. Two small dog-things jumped out of a nearby bush. Cattail was quick to realize that these were the coyote pups. She kicked herself for not being more careful. She first looked at her immediate surroundings, just to get an idea of where she was. She found that she was only about fifty yards from her hole; near the strawberry plant she'd nibbled earlier. She also realized that the coyote pups were right in her way. She couldn't outrun them. She could outmaneuver them though, since the pups still weren't very sure on their feet. She darted to her left and so did the pups. When they almost had her she darted to her right and ran past the pups who were stumbling over themselves and each other. After a quick run she was back at her little hole-in-the-ground

She took one last look outside. The sun was just starting to hide behind the towering mountain peaks, and darkness was creeping over the land. The pups, disappointed with their failure, began the trek back home. Cattail was pretty sure that their mother would have would have plenty of food to share. At last, with a contented sigh, Cattail retired for the night.

#### Mountain Caribou a Don Katnik Specialty

By Casey Groh and Olivia Brown

Don Katnik came to our classroom from Washington State University and talked to us about his caribou research in Northern Washington. In Northeastern Washington there is a herd of about 42 caribou. He answered our questions about why and how they are going extinct.

The first reason why the mountain caribou are going extinct is because of the cougar to deer ratio. The white-tailed deer population increased causing the cougar population to increase also. The deer population increased because of logging. The deer live on the forest edge. Since there are more forest edges due to clear-cutting there is more room for the deer.

Don Katnik told us on his visit, "the cougars feed mainly on the white tailed-deer, but there are some who feed on caribou. Since there was more food there were more cougars." The increase of cougars meant the increase of the cougars that eat the caribou. This causes the caribou to decrease.

Another reason the caribou are endangered is because of their low reproduction rate and the calf's vulnerability. A female caribou can produce one calf every other year. They start breeding at three and a half years of age. Their reproduction rate is among the lowest in the deer family. Newborn

#### Elk: A Long, Almost Lost Memory

By Greg Kleweno & Neil Walther

To begin, we would like to thank Zita Myers for her contributions to our research. She has observed nature in her area in the last few years. One of her favorite animals is the elk.

Elk in Eastern Washington have been an enjoyable sight for a long time. About 10 or 15 years ago, the herds of elk would seasonally come to south Spokane to spend some time. From April to mid-fall, a group of twenty to thirty elk would populate Browne's Mountain. In the last two to four years, it seems that the elk have not returned. Gardens of the Glenrose Watershed have not been grazed in, and fields have not been roamed.

Turnbull Wildlife Refuge in Cheney is where the elk used to spend much of their summer time. The solid development in the southern part of Spokane may have caused change in the elks' customs. The huge deer-like animals have probably decided to discontinue their yearly expedition. Most likely the new development of homes in

calves are very vulnerable to predation. The calves normally avoid predators during this stage because they are born in the high hills. The mothers do this to avoid predators, but this provides another problem for the calf. The rain, snow, winds, and low temperatures kill seven out of ten calves each year.

In the winter, caribou eat arboreal lichen. The lichen grows on trees and it takes about fifty years until the tree can support the lichen. This is bad because in the summer logging takes place in the caribou's habitat. Then it takes about another fifty years until the lichen are abundant enough to feed the caribou. So if we cut down one of the trees it will take another fifty years to feed the caribou.

What are we doing to save the caribou? We are transporting cougars to a different habitat so they don't eat all the caribou. This is helping some, but it might just be time for the caribou to become extinct.

Some further information about the caribou you can find on the Internet: www.wa.gov/wdfw/wlm/research/caribou/trackbou/

http://nrsgis.wsu.edu/IMCTC/general\_info.html



Mountain Caribou by Casey Groh

the area have scared the animals away.

The new change is saddening for the local watchers. Zita Myers, a Glenrose citizen, has said, "Turnbull and Browne's Mountain's development could have caused them [the elk] to alter their route. I do hope not. I have missed the drama of a visit from these magnificent animals for over two years." One event that stands out is when Zita's son took a picture of a clump of elk. Eventually it was noticed that a coyote was watching the beasts from nearby attempting to attack a calf. The adult elk were surrounding the calves to protect them from immediate danger. This behavior was amazing. Another great sight was when the 1,100-pound animals were leaping gracefully over 4-foot fences.

It is truly saddening to think that these unique actions might not be seen any more. It remains to be seen if Elk family behaviors will be observed around the Glenrose area in the future.

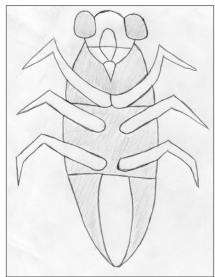
# Pond

## Why is the Pond Important?

By Nick Hartman and Austin Dodds

There are many birds that depend on the pond on 29th and Havana. Some of these birds are the Red-winged Blackbird, the Red-tailed Hawk, and the Pygmy Nuthatch. What would happen if the pond disappears? An example of a bird that would disappear is the Red-winged Black bird. It is one of the birds that depends on the pond, because it nests and feeds here. The cattails serve as a nest for the Blackbird, (which grow three to eight feet off the ground.) If the pond disappeared we wouldn't see the Red-winged blackbirds anymore.

Another bird you wouldn't see is the Red-tailed Hawk. This bird is a predator and it depends on the pond for part of his source of food, which are small mammals and other birds. If it disappeared there would be a population bulge in other species. That would disrupt the natural order of things.



Backswimmer by Anne Pew

### Going to the Pond

By James Tillett

Walking fast, With the class, Watching birds at last. Recording stats as we pass, At the pond with everyone. An example of a bird that nests right near the pond in dead trees is the Pygmy Nuthatch. It would disappear for two reasons. First, if the pond was gone its nesting area would also be gone. Second, if the pond disappeared its food supply of bugs that live in the pond would be gone.

If the pond disappeared the birds mentioned above plus many other species would vanish from this area. It's incredibly important that these birds remain in this area because a more biodiverse ecosystem is a stronger ecosystem. Also, if the birds were gone the other populations would rise rapidly, therefore affecting other species. So, we need to protect our pond because what happens to one species, affects another.

#### Birds

By Matt Richardson

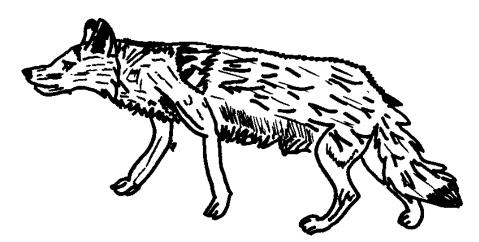
When I go outside, I see the sky, And in the sky, Are things that fly.

Those things I see, They are the birds, A quail, a gull, Some bright mallards.

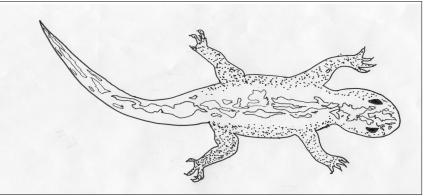
Those fast sleek birds, They roam the sky, And fly so high, They are of god just shy.

After winter goes,
They come so soon,
Through early spring,
And the heat of June,
But when autumn strips the trees,
That's when the birds begin to leave.

Even though they are gone,
I can almost hear,
Those now gone bird songs.
That were so pleasant to the ear.



Coyote by Josh Davis



Long-toed Salamander by Olesya Churkina

#### Long-toed Salamander

By Daniil Topov and Olesya Churkina

I was walking in the forest with the class and I saw a piece of wood lying on the ground. I picked up the piece of wood and I saw a little salamander. It was a Long-toed Salamander. The salamander was lying on the grass. The grass under the piece of wood was wet. I found another salamander lying under another piece of wood in wet grass.

They were all found in the same area. They were dark green and had four little legs and feet with four toes each. They also had little tails.

At the nearby pond we found salamander larvae swimming in the

The same was and

Salamander Larva by Olesya Churkina

pond. They were dark brown and one inch long. The gills were on the outside of their body. They are slow swimmers. We found many but kept only three. We have been watching them grow in an aquarium in our classroom. The larvae eat fairy shrimp, which we also found in the pond.

#### The Havana Pond

By Laura Martin and Brian Hunt

The Havana pond of 29<sup>th</sup> Ave. is very important to the Chase area because it is a home to many different species of animals. This habitat is a wetland. What is a wetland? Well, a wetland is an area where water covers the soil all or part of the year for long periods of time.

The species that live in this wetland are part of the food chain. If the wetland disappears, because of extension of human habitat, the whole food chain will be affected. The frogs will disappear because there will be fewer insects. The reason there will be

fewer insects is because there will be few ponds to lay their eggs. Another example is the mallard duck. If the wetland is gone, they don't have a place to lay their eggs, or a place to eat.

There are ways we can help to protect the wetland. We can buy the wetland before housing companies build on it, and we can learn more about the wildlife and how they interact. We can also set up fundraisers. These fundraisers can help save the wetlands. If we help the wetlands, we can keep the food chain in working order.

#### Biodiversity

By Garth Hill and Alek Lewis

Throughout the world we are losing habitat. The habitat loss is not as bad as in some places in the world, like the rain forests in South America and Australia, but in the United States we have lost more than half of our original prairies and wetlands. What are the threats against the habitat in the Chase area?

At Chase, when they log the forests they are killing the habitat and source of food for some of the wildlife. The animals move or die because they do not have the correct habitat to live in anymore. The loss of habitat affects the biodiversity of the species in the area. One of the many reasons for the decrease in biodiversity is the increase in housing development.

One reason biodiversity is decreasing is that we are not protecting the animals. If we were thoughtful and considerate we would be careful and aware of where we are building. Another way we can protect habitat is to use less fertilizer on our lawn and gardens. We saw that very few birds land on Chase's lawn because of the spray that is used. We need to continue to protect biodiversity around Chase. If we do not start protecting our biodiversity, who will?

#### Pond Poem

By Rachel Rubens

Violet-green Swallow, Red-winged Blackbird Mountain Chickadee, Calliope

Mountain Chickadee, Calliope Hummingbird.

Birds big and small, migrant or non, Came from above, came to the pond.

Birds were not the only ones there, There were many animals that do not fly in the air.

We caught a salamander that was under a rock,

The squirrels jumped from tree-top to tree-top.

There were armies of ants and lots of tracks.

We could hear bird calls and see animal scat.

Most of the birds that we saw at the pond,

Were migrant and wouldn't stop for long.

If the pond was gone and nothing was

The birds would have no home and none would be left.

Violet-green Swallow, Red-winged Blackbird, Mountain Chickadee, and Calliope

Hummingbird.