



Volume 30/Issue 5

Eagles

January 2017

# EAGLES



**INSIDE:**  
Bald Eagle  
The Hawk Family  
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# BALD EAGLE

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**T**he bald eagle is familiar to most people. Its large size, brown body, and white head and tail make it easy to recognize. Bald eagles are the second largest bird of prey in North America. With a six and a half foot wingspan, it's no wonder!

Bald eagles live year-round in the Northern Rockies. Idaho is a good place for these birds to live and for people to see them. In other parts of the country, they are mainly winter residents. These eagles live in forested areas near water. Many of Idaho's lakes and rivers provide the habitat bald eagles need. The water provides fish, the bald eagle's favorite food. Eagles will also eat ducks, rabbits, muskrats and dead animals. That might sound disgusting, but dead animals, called carrion, are important sources of food. When waterways ice over, the eagles cannot fish. A dead animal can provide a lot of food for a hungry eagle.

Eagle habitat also provides large trees for nesting. Bald eagles build huge nests! The biggest eagle nest ever recorded was in Ohio. It weighed four thousand pounds! The same pair of eagles used the nest for 34 years until

the tree fell down. Eagles build their nest out of sticks. They line it with leafy branches, moss or other plant materials. This makes a soft place for their eggs. Young eagles are called eaglets. They grow slowly and will spend over three months at the nest. Eaglets are brown with a lot of white splotching. They will not look like their parents until they are about five years old.

Bald eagles became our nation's symbol in 1782. By the mid-1900s, however, they had become rare. In 1940, the Bald Eagle Protection Act gave protection to bald eagles. But habitat loss, illegal shooting and chemicals called pesticides caused many eagles to die. In 1978, our nation's symbol became an endangered species. Fortunately, many people wanted to help eagles. They worked to protect and restore eagle habitat. The pesticides that hurt eagles were no longer used. Eagle populations increased and in 2007, the bald eagle was taken off the list of endangered species. While it is still not a common bird, bald eagles are doing much better. You and your family have a good chance to see bald eagles when you visit Idaho's lakes and rivers.



# GOLDEN EAGLE

**T**he majestic golden eagle lives in the open country and canyonlands of the western United States. Like the bald eagle, it is also a very large bird of prey. Its wingspan is just over six feet. In spite of its large size, golden eagles are known for being powerful, fast and very acrobatic when they fly. This helps them find food in the large open spaces where they live.

Golden eagles get their name from the golden feathers on the back of their head and neck. The rest of their body is brown. Unlike most birds of prey, golden eagles have feathers on their legs, all the way down to their toes. Their favorite food is jackrabbits. Golden eagles also eat rabbits, hares, ground squirrels and carrion. The bird will soar overhead looking for food. When it spies a jackrabbit, the eagle will dive to catch it. Scientists have clocked the speed of a golden eagle dive at nearly 200 miles per hour!

Because of the habitat where golden eagles live, they often nest on cliffs. The parent birds bring sticks to build their nest. Leaves, grasses, moss, bark and lichen are used to line the nest. Golden eagle nests can be two feet high and five to six feet wide. From their nest, the birds have a great view of the surrounding country. You can often spot a golden eagle nest by looking for white streaks on the rocks below the nest. This is called

whitewash and is bird poop. Baby hawks and eagles poop off the sides of their nest to keep the nest clean.

Golden eagles are also found in many countries around the world. They are the national symbol of Albania, Germany, Austria and Kazakhstan. In Mongolia, some falconers use golden eagles as their hunting partner to bring home food for their families.

Like bald eagles, golden eagles are protected animals. They were added to the Bald Eagle Protection Act in 1962. This act is now called the Bald and Golden Eagle Protection Act. One of the biggest dangers to golden eagles is power lines. Unfortunately, the eagles can get electrocuted when they land on the power lines or poles. To prevent this problem, scientists and power companies, like Idaho Power, worked together. They developed special raptor-safe poles to help eagles and other hawks safely perch on power lines or power poles. Next time you are visiting Idaho's wide open spaces, keep an eagle eye out for golden eagles.





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# The Hawk Family

**E**agles belong to the hawk family. Hawks are a large group of usually solitary birds of prey. Scientists have identified at least 235 different species. They are closely related to falcons. You can see hawks just about anywhere in the world except the high Arctic and in Antarctica. Here in Idaho, you can see 11 different species of hawk.

Hawks share a number of characteristics. They are diurnal (die-UR-nal). This means that they are active during the day. Hawks have hooked beaks used for tearing their food. They have strong legs and feet that they use for grasping and killing prey. Excellent eyesight lets hawks spot their food a mile away! Each eye is shaded by a bony ridge that makes the hawk look mad.

Most hawks mate for life. They build large stick nests in trees, on cliffs or on manmade structures. Some species build their nest on the ground. Nests are often re-used for many years. Sometimes, a nest that has been used for a long time can get so heavy that it breaks the tree it is built in! Eagle nests are known for being very heavy. Many hawks will aggressively defend their nest. Intruders are often chased away by the parent birds.

Young hawks look very different from their parents. They might have feathers with different

colors and patterns. Several species have yellowish eyes when they are young, but their eyes turn red when they are adults. Young bald eagles have dark beaks that turn yellow when they grow up. It might take several years for young hawks to get their adult feathers.

Female hawks of all species are larger than the males. No one is quite sure why this is the case. Scientists believe it might have to do with incubation. Keeping eggs and nestlings warm is easier when the bird is larger. Because females are larger, they can catch different prey than the males. This helps make sure that the nestlings get enough to eat. If you see several hawks perched together, see if you can tell the difference between the males and females.

Hawks are familiar birds because we often see them soaring high above. Unfortunately, this makes them easy targets for people to shoot. Long ago, people thought hawks were bad. They thought hawks would eat livestock and even small children. We now know a lot more about hawks and what they really eat. This has helped people understand the important role hawks play in the food web. Hawks are now protected, and most people enjoy the sight of a hawk soaring through the sky.



# *The Eyes Have it*

**G**ood eyesight is important for birds of prey. They can spot prey from long distances and keep it in focus until it is caught. Like most predators, birds of prey have eyes that face forward, just like yours. Both eyes look at something at the same time. This is called binocular vision. Raptors can also see things off to the side by using their right or left eye by itself. This is called monocular vision. You can have monocular vision by covering one eye.

Because raptors have both binocular and monocular vision, they have two well-focused side views and one well-focused front view all at the same time. Large numbers of special cells called cones are grouped together to form foveae (FO-VEE). These foveae give the bird very sharp vision. They also let the

bird see color. Birds of prey have two kinds of foveae. The central foveae provide sharp monocular vision on either side of the bird. Temporal foveae give the bird sharp binocular vision when looking straight ahead. Together, these foveae give birds of prey three areas of excellent vision. This means the bird has three well-focused views all at the same time. When a hawk hunts from a high perch or up in the air this is a big advantage.

Birds of prey are also able to focus their eyes very quickly. The lens of the eye and the shape of the eye can change very rapidly, keeping objects in focus. These changes in the eye are called “accommodation.” A golden eagle diving to capture a jackrabbit can keep its prey in clear focus from the time it spots the prey until the prey is caught. Wow, it’s no wonder that a bald eagle can see a fish from a mile away!



## BE OUTSIDE

**W**inter is here---what a wonderful season for outdoor exploration! A blanket of new snow makes familiar places look quite different. Noisy streams become silent under ice and snow. Animals that you rarely see can now be “seen” when you find their tracks in the snow. Cold nips your cheeks and makes you look forward to a cup of hot chocolate after being outside.

Winter activities are many. Skiing and ice skating are great ways to enjoy winter. So are sledding, snowshoeing, or ice fishing. You can still enjoy winter by just taking a walk in the snow. Build a snow fort with your friends or decorate your yard with snowmen. If it is snowing, catch some snowflakes on your mittens and use a magnifying glass to look at the beautiful crystals. Take a walk in new snow to see what animal tracks you can find. Look for bird nests in the trees. If you live near a river or lake, watch for wintering bald eagles and ducks. Don't forget to check out the winter night sky. Cold, clear winter nights can give you some great opportunities to see the stars.

No matter what kind of winter activity you enjoy, dressing properly is very important. Wear layers that you can take off when you warm up and put back on if you feel cold. Snow pants can help you stay warm and dry. Warm boots are very important for winter fun. And don't forget a hat and mittens. Wearing a hat is one of the best ways to stay warm, no matter what you are doing. So, bundle up and head outside for some winter fun. After all, winter is a big part of every year in Idaho!



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fish and ducks. Sometimes you can see several hundred eagles gathered along the shoreline of a large lake---what a spectacular sight! Coeur d' Alene Lake and Lake Pend Orielle in Idaho's panhandle are places where you can see large numbers of bald eagles in the winter.

Whenever you observe wildlife, remember to be a responsible watcher. Wildlife in winter needs to conserve as much energy as possible to survive until spring. Be careful not to approach wildlife too closely. Use binoculars or a spotting scope for a better view. Observe from a safe distance and stay in your car. Vehicles can be great blinds to hide yourself so you do not disturb the animals you are watching. Enjoy our winter wildlife.

# Winter Wildlife Watching

**W**inter is a great time to observe wildlife. Animals like elk and deer often move into valleys and onto south-facing slopes to get away from deep snow and cold. This makes them easier to observe. Birds flock to backyard feeders, letting you observe them from the comfort of home. Tracks in fresh snow help you learn more about your wild neighbors. What you find might surprise you!

Water is important for wildlife in winter. Ducks like goldeneye, hooded merganser and ring-necked duck spend the winter on Idaho's rivers and lakes. One impressive winter visitor that uses open water is the bald eagle. While our nation's symbol is found in Idaho year-round, migrating eagles increase Idaho's eagle population in the winter. These birds gather along rivers and large lakes where they hunt for





# COUNTING CRITTERS

**E**very January, scientists and volunteers spend time outdoors counting bald eagles. They drive special routes and count all the eagles they see along the route. This information helps scientists find out if Idaho's bald eagle numbers are going up, down or staying the same. Idaho has about 78 different routes all over the state. In recent years, between 600 and 700 eagles have been counted.

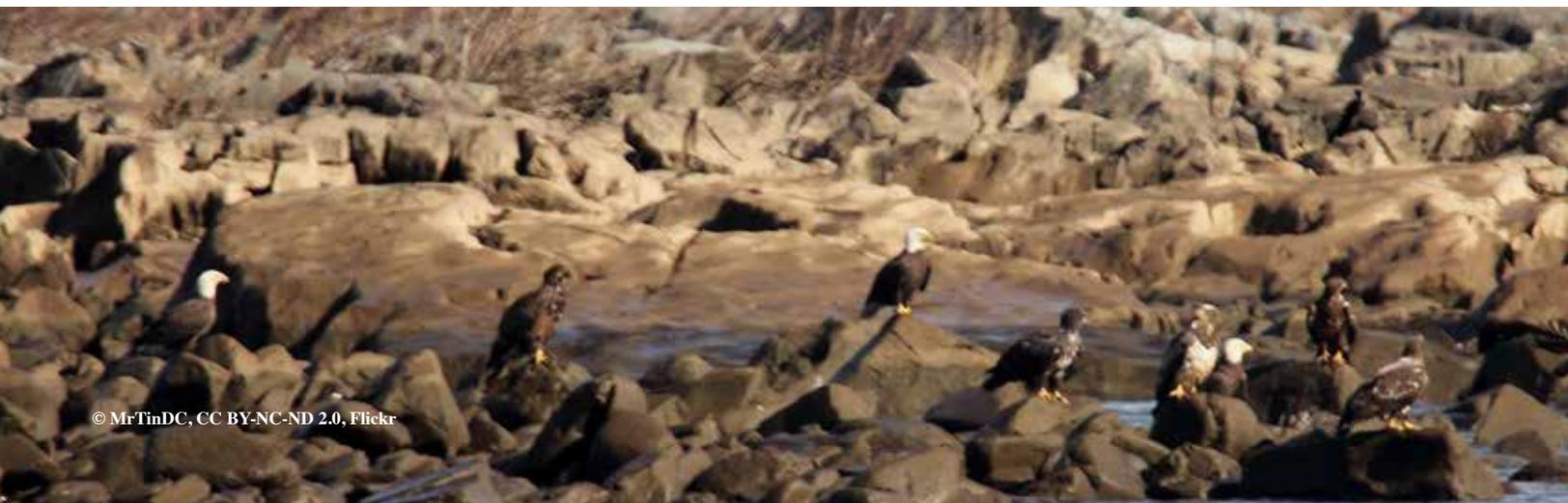
Biologists at Fish and Game count other animals as well. Sometimes biologists or volunteers use driving routes. Other animals are more easily counted by air so a helicopter is used. Helicopters are also used to fly along rivers to count the nests that salmon make. Snow machines, snowshoes and even skis come in handy for doing winter snow-track surveys. Animals like lynx, wolverine and fisher are counted using snow-track surveys. Rafts, canoes and kayaks come in handy for doing river surveys to count waterfowl.

One of the most famous animal counts is the Christmas Bird Count. Started in 1900, the count lasts from December 14 - January 5. People all

over North America pick one day during the count period. They spend that day counting and identifying all the birds they see. In 1900, 25 different counts occurred and 89 species of birds were recorded. Last year, 14,468 counts were done and almost 2,098 species were identified. The Christmas Bird Count has grown. It continues to attract bird watchers of all ages. Other bird counts include the Breeding Bird Survey, Project FeederWatch and the Great Backyard Bird Count.

All this counting helps scientists understand if animal populations have changed. It can be a clue to a change in habitat. It might be a sign that animals are getting sick and dying. Animal counts can even alert scientists to problems that might be bad for people. Counts can also show good things like better habitat and healthy animals.

Would you like to help count animals? Volunteer citizen scientists play an important role in counting animals. Many large counts are done mostly by volunteers. Contact your local Audubon club or Fish and Game to learn how you can become a citizen scientist.



# Eagle Word Search

S Z H M K E F L J T P X K C F  
G E G A A D F T O W A T E R L  
F O Y G N W I A C B B X D J I  
J X L E Q M L T R H M W H Z G  
D E B D J X C I I W Z Y Q N H  
T K F A E B K B F I S H S K T  
S R B S L N U A P H Z U V A X  
E R O W U D T H N A S T S E N  
C A E S N O L A T W S T E B H  
R H O H T G R Y C K I E T T K  
A N J E T F N Q S B R B D N U  
N U E H B A E V B T K R X F P  
J C G C Y T E A C A R R I O N  
H I D X N A R F B C J N X V S  
S L L I X V N U W B S W X G M

## WORDS :

BALD  
BEAK  
CARRION  
CLIFF  
EAGLET  
EYES  
FEATHERS  
FISH  
FLIGHT  
GOLDEN  
HABITAT  
HAWK  
NEST  
RABBITS  
SIGHT  
SOAR  
SYMBOL  
TALONS  
TREE  
WATER

## WILDLIFE EXPRESS

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WE WOULD LIKE TO HEAR FROM YOU!

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