

The title "Wildlife Express!" is written in large, colorful, stylized letters. Each letter is decorated with a different animal illustration: 'W' has a brown bear, 'i' has a white rabbit, 'l' has a white goat, 'd' has a yellow and black striped snake, 'l' has a brown bear, 'i' has a grey wolf, 'f' has a green frog, 'e' has a brown moose, 'E' has a brown bear, 'X' has a brown bear, 'p' has a brown bear, 'r' has a brown bear, 'e' has a brown bear, 's' has a brown bear, and '!' has a brown bear. The background is a light beige color with a dark blue border.

# Wildlife Express!

Volume 24/Issue 8

Turkey Vulture

April 2011

A photograph of a Turkey Vulture in flight against a clear blue sky. The bird is shown from a side profile, with its wings fully extended. The text "Turkey Vultures" is overlaid on the image in a bold, black, sans-serif font, tilted slightly upwards to the right.

## Turkey Vultures

Photo courtesy Mike Morrison ©



# Let's Talk About . . . Turkey Vultures

If you have ever seen a dead animal lying by the side of the road on a hot summer day, you have probably seen a turkey vulture nearby. These large dark birds with bare red heads are some of the best scavengers around. As they eat their rotting meal, they help begin the process of decomposition. While it sounds gross to us, turkey vultures are an important part of nature's clean-up crew.

Turkey vultures spend the spring and summer in much of our state. They prefer areas with a lot of open space and scattered trees. Many of Idaho's mountain valleys are good places to see vultures. With their almost six-foot wingspan, they are easy to spot as they soar overhead. Soaring and gliding are their favorite ways to get around. Once the sun has warmed the morning air, vultures take flight, riding rising columns of warm air called thermals. Vultures are so skilled at this that they can soar for up to six hours without flapping their wings!

While soaring around, vultures are looking and smelling for food. Unlike most birds, turkey vultures

have a very good sense of smell. They can sniff out a mouse from 200 feet up in the air! Most of the time, they find their food by smell alone. When vultures feed, they often stick their whole head into the dead animal. This is where having a bare head comes in handy. Imagine if you had to eat by putting your head in your dinner. You would be a mess! Vultures stay clean because they have no feathers on their heads. A bare head also makes it easier for the sun to kill bacteria that might get on the skin. That bare head is also what puts the name "turkey" in turkey vultures.

Vultures spend their lives in warm places. They winter in Mexico or Central and South America before migrating to Idaho and other northern states in the spring. Beating the heat is important and vultures have a very unique way of keeping cool. They use a process called "urohydro-sis (you-row-HI-drosis)." This is a fancy way of saying that vultures poop on their legs! Since bird poop is mostly liquid, it can evaporate. The process of evaporation causes cooling. It is kind of like how you

cool off on a hot summer day by running through the sprinkler. As the water on your body evaporates, you cool off. Urohydro-sis works the same way. Running through the sprinkler just sounds much better!

Turkey vultures will be returning to Idaho this spring. Spend some time watching for these unusual and fascinating birds.



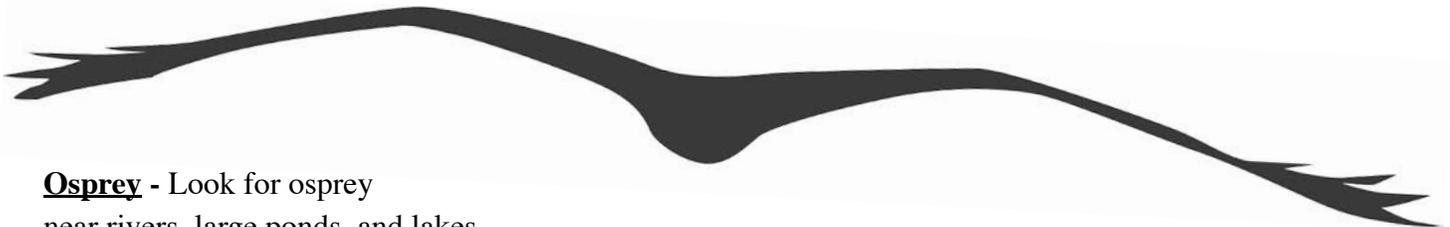
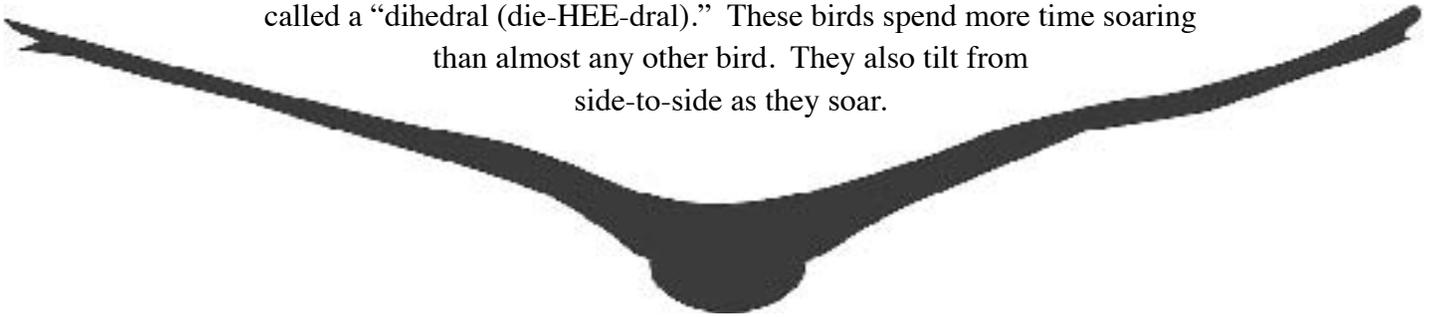
Photo courtesy Mike Morrison ©



# Raptor Watch

April is a wonderful month to get outside! Many things are happening outdoors for you to enjoy. A really cool thing to watch for in April is migrating birds of prey, also called raptors. Foothills and ridges can be great places to observe flying raptors. Even the raptors that spend all year in Idaho are fun to watch as they defend territories, tend nests, and search for food. Flying raptors can be a challenge to identify. Using flight silhouettes can help you identify different species. Here are the silhouettes of three common Idaho raptors:

**Turkey Vulture** - This bird holds its wings in a deep “V” as it flies. This is called a “dihedral (die-HEE-dral).” These birds spend more time soaring than almost any other bird. They also tilt from side-to-side as they soar.



**Osprey** - Look for osprey near rivers, large ponds, and lakes. They are brown and white. Their wings form the letter “M” as they fly. If you are lucky, you might see an osprey make a spectacular dive into the water to catch a fish.



**Red-tailed Hawk** - The red-tail is one of Idaho’s most common raptors. These large hawks hold their wings very straight out from their bodies. Red-tailed hawks often soaring large circles as they ride thermals. Look for their namesake - the red tail.



# Vulture Vomit

Photo courtesy Mike Morrison ©

One of a turkey vulture's most amazing adaptations is its stomach. Even the bird's Latin name of *Cathartes*, meaning "purifier," has to do with its stomach. Vultures need a strong stomach to cope with feeding on rotting food. Besides the rotten meat itself, think about all the bacteria that are found in rotting food. Some of those bacteria could make anything that eats it quite sick. Vultures do not have to worry about getting sick. Their digestive juices contain powerful enzymes that kill bacteria. Even really tough bacteria that can cause serious food poisoning are killed in a vulture's stomach.

Vultures can also help stop the spread of disease. A number of serious diseases such as anthrax and hog cholera are killed in the digestive system of vultures. Scientists discovered this by examining the scat of vultures that had eaten animals that died from these diseases. Since what goes in the front usually comes out the back, scientists expected to find bacteria in the vulture scat. When they found no bacteria, they realized that by cleaning up animals that died of disease, vultures could stop that disease from spreading. Their powerful digestive enzymes had killed off all the disease-causing bacteria.

Vultures also use their stomachs for protection. When you get too close to a vulture, it will first warn you with loud hissing sounds. If you cannot take a hint and you try to get closer, watch out! The next thing the vulture will do is vomit up a bunch of partially digested rotten meat. While they do not often do it, they can send their vomit sailing up to 10 feet away. The threat of vulture vomit is usually enough to keep just about anything from getting too close to a vulture!

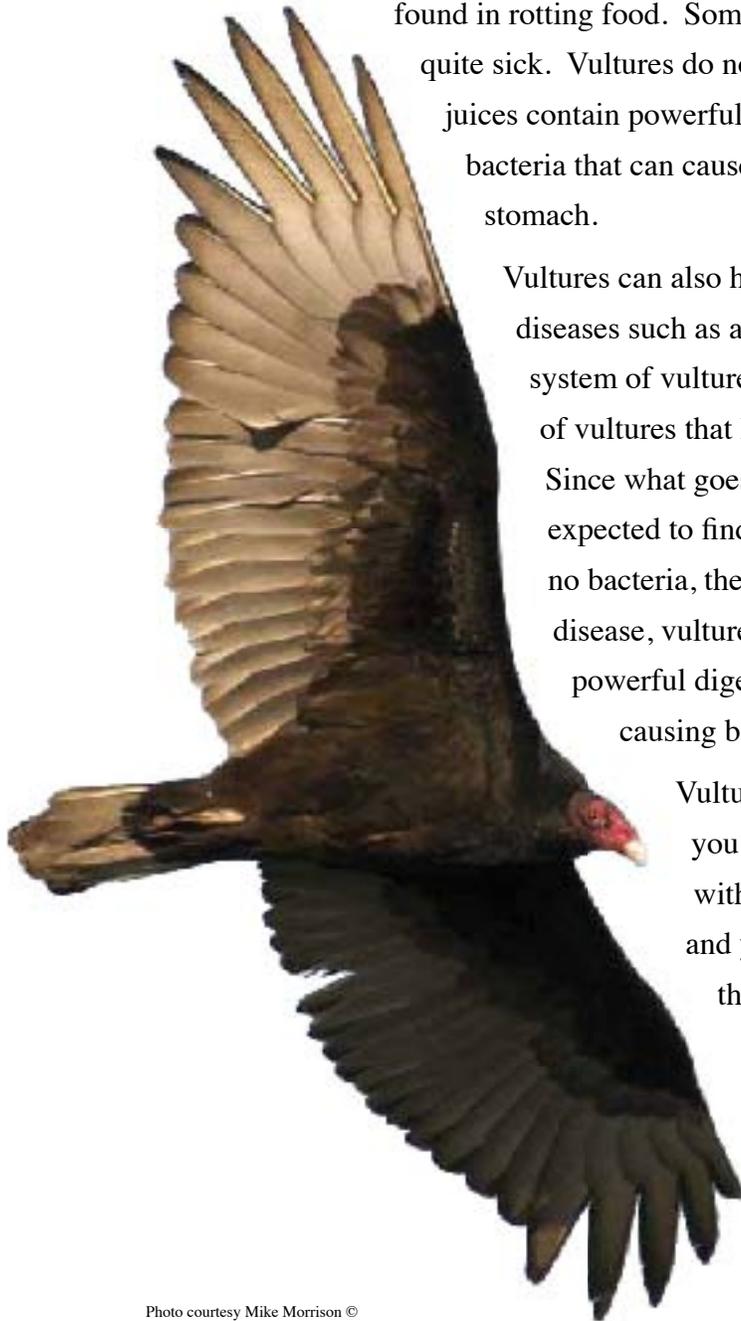


Photo courtesy Mike Morrison ©

# New World Vultures

The vultures that live in the western hemisphere are called New World Vultures. Only seven species make up this group. Three of these species live in North America: black vulture, turkey vulture, and California condor. The turkey vulture is the only New World vulture found in Idaho.

Vultures have been around for a long time. Fossils of ancient vultures found in Wyoming are thought to be 60 million years old. For a long time, vultures were grouped with birds of prey. This made sense because they fly like birds of prey and have meat-tearing beaks. However, vulture feet cannot grasp things. Instead, their feet are adapted for walking on the ground. Vultures also do not act like other birds of prey. After looking at vulture DNA, some scientists now think vultures are more closely related to a group of wading birds called storks.

One thing we do know is that vultures are incredible fliers. They have wingspans of 4 – 9.5 feet long and can soar for hours. California condors can fly 140 miles as they search for food. They have the longest wingspan of any North American land bird. All this flying helps vultures locate their food: dead animals. New World vultures are scavengers, helping keep things cleaned up. Their bare heads and necks help them stay clean. Vultures prefer to eat “freshly dead” food instead of something that is really rotten. Of course, your definition of what is really rotten is probably quite different than a vulture’s!

Vultures are quiet birds. They do not have the same vocal structures of other birds. Because of this, they can only hiss, grunt, and make barking sounds. Young vultures are noisier than the adults. They make more noise to attract the attention of

their parents. Vultures nest in caves, crevices, stumps, hollow trees, and even on the ground. Female vultures lay one to four eggs that are light tan. Parent vultures feed their young until they leave the nest. Like teenagers, young vultures tend to hang around with other young vultures, especially at nighttime roost sites.

Vultures are very important in their role as scavengers. They eat tons and tons of dead animals, removing them from the countryside. Not only does this make things cleaner and more pleasant but it can also help prevent the spread of disease.

We might think vultures are funny-looking and that their habits are disgusting, but what would the world be like without them? Vultures are pretty cool birds even if we would not want to have dinner with them!

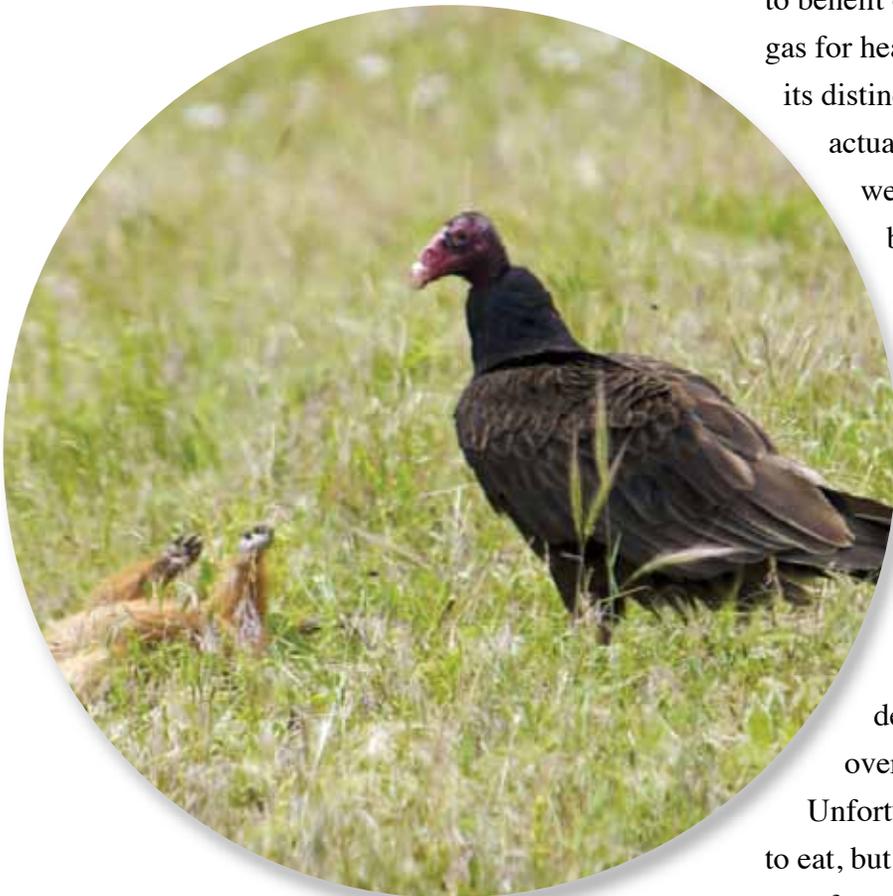


# The Nose Knows

The sense of smell is one of the most important senses for wildlife. Many animals rely on their sense of smell to survive. Dogs and their wild relatives are considered to be the champion sniffers. While humans have five to ten million cells for smelling, dogs have 125 – 300 million cells. The part of the brain that processes smells, called the “olfactory” lobe, is four times larger in dogs than humans. In addition, dogs have about 900 square inches of smelling membranes in their nose. This is an area that is bigger than a dog’s entire body! Compare that to a human’s 65 square inches of membranes. No wonder we rely on dogs to find missing people and sniff out dangerous stuff!

Turkey vultures are the dogs of the bird world because they have such a good sense of smell. Smelling is not something most birds do very well. The turkey vulture is an exception. In fact, of all the New World vultures, the turkey vulture has the best sense of smell. Like dogs, they have a large olfactory lobe in their brain. Their beak has a large chamber to collect smells, and their nose is not divided into two separate nostrils like your nose. This allows a lot of air to move through their nose so they can capture scent as they fly. They can smell their way to food they cannot see from high up in the air. In one study, researchers hid 74 dead chickens in a forested area. Turkey vultures were able to find 71 of the chickens even though they were well hidden.

We have used the turkey vulture’s smelling talents to benefit ourselves. If your family uses natural gas for heating or cooking, you probably recognize its distinctive rotten eggs odor. Natural gas actually has no smell. The odor is added so we can smell it. Because natural gas can be dangerous, giving it an obvious odor helps you recognize when there is a problem. Gas lines that transport gas to communities are often buried. If they leak, it can sometimes be hard to find the leak. This is where turkey vultures come in. Gas companies discovered that by looking for a flock of turkey vultures, they could often find the gas leak. The birds can easily detect the rotten eggs smell and soar over to check out what might be for dinner. Unfortunately, the vultures do not get anything to eat, but gas companies can fix the leak, keeping us safe.



# Helping Hands

North America's largest vulture is also its most endangered. California condors used to be seen soaring across much of the far western parts of the United States. Before they were protected, habitat loss, illegal shooting, and lead poisoning almost caused these birds to become extinct. In 1987, the last wild condor was captured to try and breed the birds in captivity. Many people and organizations, like The Peregrine Fund here in Idaho, worked to help condors. Because of their efforts, 190 California condors now live in the wild in a few parts of southern California and Arizona. Another 179 condors still live in captivity, helping increase the number of condors that can be released to the wild.

California condors still face dangers. One big concern is lead poisoning. Condors get lead poisoning by eating bullet pieces that are left in the remains of animals harvested by hunters. While hunters do not eat the internal organs of an animal they harvest, condors do. If they eat pieces of lead, they become sick and can die. Fortunately, many hunters are volunteering to help out the condors. They are using non-lead bullets when they hunt. Hunters are also helping by burying or hiding the remains of the game they harvest. Condors are very curious. They often find food by watching other scavengers like turkey vultures and ravens. When a condor sees these other birds gathering, they fly down to check out what is going on. Burying animal remains makes it harder for other scavengers to find it, and less likely that a curious condor will investigate. With many helping hands, our largest vulture has a brighter future.



Photo courtesy  
Chris Parish ©  
The Peregrine Fund



Photo courtesy Chris Parish ©  
The Peregrine Fund



## Unplug and Be Outside!

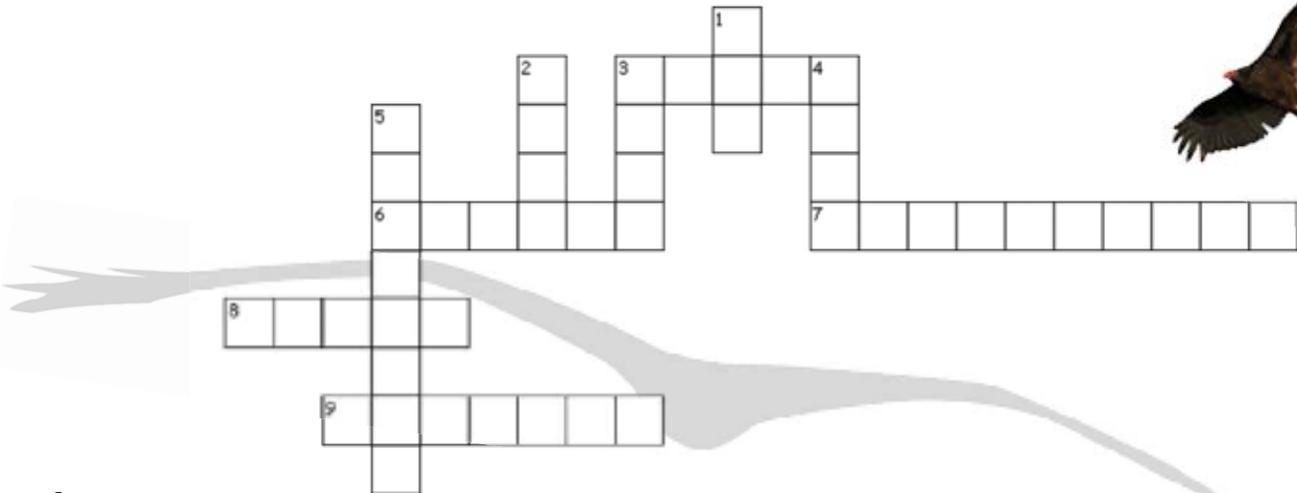
April 25 – 29 is Unplugged Week.

Turn off your electronics, grab your family,  
and head outside for some outdoor fun.

# Turkey Vulture Puzzler



Photo courtesy Mike Morrison ©



## Across

3. Turkey vultures use their sense of \_\_\_\_\_ to find food.
6. The largest vulture in North America is the California \_\_\_\_\_.
7. Turkey vultures are \_\_\_\_\_ - they eat dead things.
8. The turkey vulture holds its wings in a "V" as it \_\_\_\_\_.
9. Turkey vultures \_\_\_\_\_ to Mexico or Central or South America in the winter.

## Down

1. Turkey vultures have a \_\_\_\_\_ head.
2. The \_\_\_\_\_ head of a turkey vulture helps to keep it clean.
3. Turkey vultures can \_\_\_\_\_ for six hours without flapping their wings.
4. Turkey vultures poop on their \_\_\_\_\_ to keep cool.
5. The stomach juices of a turkey vulture can kill \_\_\_\_\_.

## WILDLIFE EXPRESS

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WE WOULD LIKE TO HEAR FROM YOU!

If you have a letter, poem or question for *Wildlife Express*, it may be included in a future issue! Send it to the address printed above!

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