

New World Vultures vs. Old World Vultures

There are two different groups of vultures, New World vultures (from the continents of North and South America) and Old World vultures (from Europe, Africa, and Asia). Vultures are a great example of convergent evolution, or the development of similar animals that occupy the same niche, but are not related.

New World vultures include 7 species from 5 different genus; the black vulture, turkey vulture, king vulture, greater and lesser yellow-headed vultures, the Andean condor, and the California condor.

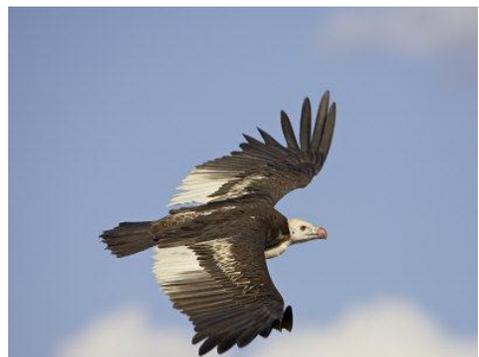
Old World vultures include 16 species from 9 different genus; the cinereous vulture, lammergeier (or bearded vulture), palm-nut vulture, griffon vulture, Indian white-rumped vulture, Ruppell's vulture, long-billed vulture, slender-billed vulture, Himalayan griffon vulture, white-backed vulture, cape vulture, Egyptian vulture, red-headed vulture, lappet-faced vulture, and the white-headed vulture.

Vultures have an important role in their habitats because they feed primarily on carrion, or the flesh of dead animals. They are particularly good scavengers as they can fly and cover a greater distance than scavengers that are on foot.



There are two main similarities between the two groups of vultures. They both have naked heads, or very few feathers on their heads. This is because they often stick their heads inside carcasses to pull out meat, and they get very messy. It is easier to keep a baldhead clean. This cuts down on bacteria that could grow in their feathers and make them sick. The second similarity is the large wingspan that makes them able to fly at high altitudes and soar on thermals in order to find their next meal.

There are some major differences between Old World and New World vultures as well. Old World vultures have very good eyesight, and usually locate their next meal by sighting it, or other vultures circling at a distance. This works very well in places where there are large open plains and grasslands. On the other hand, New World vultures rely heavily on smell to locate their meals. The turkey vulture has a highly sensitive sense of smell. They can soar high in the thermals, and locate their food by smell. The sight of turkey vultures descending towards a kill is usually a signal for other vultures to check out that area as well.



Old world vultures have heavy, strong beaks and very strong taloned feet. These are useful for eating larger grassland animals that are heavy bodied with thick hides.



Many different types of vultures will congregate together on a carcass. The different vultures are all specialized for eating different parts of the carcass. There will be a few of the much larger vultures that will do the heavy work of opening the hide and breaking the bones of the dead animal. Then there are several different kinds of smaller vultures that are better suited for eating out of cavities, or pulling meat off bones.



When they are all together, they can carcass of meat very quickly before the spoils in the heat, or before other scavengers drive them from their meal. their strong, gripping feet, Old World vultures are not able to run very well. If need to move out of the way, they will hop, or hop/fly short distances.



strip a
meat

With

they
usually

On the other hand, New World vultures relatively weak feet. They are unable to with them, but they are much better suited to run distances like a chicken if needed. Their beaks are smaller and weaker as well. As a result, many New World vultures may prefer to eat meat that has started to spoil. This means that the carcass will be more rotten, and easier to get in to. This is most likely why the New World vultures have a better sense of smell.

have
grasp

Vulture Habits

Vultures are often misunderstood and get a bad rap because of their food choice and some of their sanitary habits.



Vultures provide a much needed service in food chains. Carrion eaters and scavengers are essential for disposing of dead bodies. Vultures have highly acidic stomachs that kill disease-spreading bacteria and parasites found in rotting meat. By cleaning up carcasses, vultures help prevent the spread of disease.

Vultures have perfected certain ways of dealing with the harmful bacteria that may be in their food. Let's face it, when you eat dead animals, it's gonna get messy. It is hard to keep your feathers clean when you have to stick your head in a carcass to get your dinner. As a



result, most vultures have little or no feathers on their heads. Viola! Less to keep clean!



They are also fond of bathing in water to keep their feathers clean.

To help keep bacteria away, vultures will deliberately coat their legs with urates (vulture urine).



Vultures are often seen standing with their wings spread out, this is called the “horaltic pose”. The purpose of this pose may be for several reasons: warming his body in the sun, drying off feathers or baking bacteria off of his feathers.



A defensive move, if startled or cornered by a predator, is to vomit. This is useful in two ways. First, vomiting helps the vulture “lighten the load” so they can take off and fly faster to get away from the predator. Also, the predator may be more interested in eating the meat that the vulture has regurgitated rather than eating the vulture itself—giving the vulture time to make his escape!



That’s NOT a buzzard!

The vultures found in our area are the turkey vulture and the black vulture; both of these species are true vultures, not buzzards.

Buzzards are actually several different species of hawks that are found in parts of Europe, Asia, and Africa. They are part of the genus *Buteo*. A local example of a *Buteo* species here in Texas is the red-tailed hawk (*Buteo jamaicensis*). Hawks and buzzards of the *Buteo* genus have broad wings and wide bodies and are well adapted for soaring high in the air to search for food.



So if real buzzards are only found in Europe, Asia, and Africa, why do people call our vultures buzzards? This most likely happened because many of the first colonists in the United States were from England.

There are no vultures in England, but when people saw the large birds soaring in the sky, the first settlers probably called them buzzards because they resembled the birds back home.

So remember - around here they are VULTURES! Not buzzards!

Vultures and Man

No matter how vultures are perceived, they do coexist with us, and they have an important place in our society, our culture, and most importantly in our natural environment.

We have learned that other cultures have revered vultures in their artwork and legends of the past. Early hunter-gatherers of many cultures knew to follow the signs of circling vultures in order to find dead and dying animals for a free meal. We know that there are cultures today who rely on vultures to dispose of their dead, both human and livestock.

We rely on vultures to help keep our drinking water and soil safe from harmful bacteria that would build up without their efforts. Vultures also help remove human made waste that would take up space and spread disease.

We can admire the vulture as a symbol of energy efficiency in flight. Their large wingspans and use of thermals for ascending in the air have long been studied, admired, and imitated in the use of aerodynamics. They can ride thermals for long periods of time, hardly ever having to beat their wings to stay aloft. In this way, they can cover large areas in search of food.

Mankind has also learned to make use of the keen nose of the turkey vulture. Natural gas has no odor, so a substance called ethyl mercaptan is added to it. This odor closely resembles the odor that is given off by decaying flesh, so natural gas employees can use large congregations of vultures to help locate breaks or leaks in natural gas lines.

Vulture populations have suffered from habitat destruction, chemical poisoning, and poaching at the hands of mankind. We have worked hard to bring back populations that have been brought to the edge of extinction, and we have had some success. We need to realize how our actions affect other species, and continue to find ways to fix the problems we have unwittingly caused.

Many people would prefer to think that they have nothing in common with vultures. In truth, mankind shares a kinship with living creatures on the planet, and the more we understand them, the more we can strive to live together in peace.

Vulture Culture

In our modern culture, vultures are often associated with death, desolation, and darkness. Vultures are often depicted in deserts and other remote locations, even though they are found in all kinds of habitats throughout the world. They are also used as spooky decorations at Halloween and used in phrases to depict the finality of things, such as “the vultures are circling”. People who prey on the weaknesses of others are considered vultures.



Ancient Egyptians had a hieroglyph in their language of the vulture. This hieroglyph was used to say words such as mother, prosperous, grandmother, and ruler. The vulture was held sacred to the goddess Isis, and was viewed as a symbol of royalty.



In the Hindu religion, there are two demigod brothers who are vultures, Jatayu and Sampati. In one story, Jatayu flew so high that he was about to be seared by the sun's flames. Sampati flew up to save his brother by spreading his wings over his body and shielding Jatayu from the flames. In the process, Sampati was injured and lost his wings. He spent the rest of his life wingless. Their story represents courage and self-sacrifice.



Some cultures do not bury their dead, but instead offer the bodies of the deceased for vultures to eat. This is practiced in parts of India where bodies are placed in the Tower of Silence for the vultures to devour, and some people in Tibet practice sky burial. It is considered a clean way for disposing of bodies in areas where the soils may be too rocky for burial, or there are insufficient fuels for cremation.

Vultures in Crisis



The California condor is a type of New World vulture. In the 20th century, the number of California condors plummeted almost to extinction due to poaching, lead poisoning, and habitat destruction. In 1987 there were only 22 California condors alive. All of these birds were captured and placed in the San Diego Wild Animal Park and the Los Angeles Zoo to try to save the species. After years of breeding in captivity, the numbers slowly began to rise.

Birds started to be reintroduced to the wild in 1991, where they were carefully monitored and protected. Today the California condor represents one of the best achievements in conservation. Brought back from the brink of extinction, there are currently 394 known living condors, including 181 in the wild.



Unfortunately, the California condor is not the only vulture species faced with extinction. In the mid-1980's many of India's vulture species began to mysteriously die. At first, no one seemed to notice. The three species of vultures, the white-rumped vulture, the Indian vulture, and the slender-billed vulture had always numbered in the millions of birds. A few bird deaths here and there went virtually undetected. From 1992 and on, concern began to grow as the numbers of dead vultures grew. In another 10 years, the populations of these three species dropped almost 97%. Where there used to be millions of vultures, now there were only a few hundred.

At last, the mysterious ailment that was felling these birds was identified. An anti-inflammatory drug known as diclofenac had started being widely used in livestock production in India in the 1980s. It is

used in livestock, but when the livestock die and the vultures feed on their remains, the drug causes visceral gout and kidney failure in the birds.

Manufacturing of the drug for veterinary use was outlawed in India in 2006. Unfortunately, the form manufactured for humans is still produced and is used for livestock as well. If a way isn't found soon to protect these birds, these three species may very well be extinct within 10 years. The clock is running out.



Vultures and Cameron Park Zoo

There are two vulture species that are native to Texas, and can be seen quite frequently, the black vulture and the turkey vulture. In the past, there have been up to 300-400 of these vultures that regularly roost in the trees along the rivers, primarily at the confluence of the Brazos and Bosque Rivers by Cameron Park East

In late 2008, renovations began in the park. The noise of the large machinery and earthmovers disturbed the vultures out of their regular roosting trees. In their search for a quieter place to roost, the vultures found the perfect place—Cameron Park Zoo. The zoo offered the perfect place for the vultures, lots of tall trees to roost in at night, plenty of clean water to drink and bathe in and interesting rocks and perches in various exhibits.

It was a little disconcerting to suddenly have 300+ vultures sitting around the zoo. We are asked many questions about them, and people thought they were hanging out here because they were stealing food from our animals, or we had dead animals that they were feeding on. During the day they search for food and after they feed, they return to the zoo for a safe place to sleep at night.

We did our best to get along with our new companions, but they spent a great deal of time on top of one of our buildings and were picking at the sealing caulk on the roof. We tried a couple of methods to try and encourage the birds to roost elsewhere. The first was an inflatable waving arm windsock on the roof. Then we made several effigies, or fake dead vultures to hang on the roof (the vultures were unimpressed



by our efforts). Finally, the roof had to be repaired and “vulture proofed”. Now that the construction is nearing completion at the river, many of the vultures have moved back to their original roosts. There are still quite a few who have decided that they like it better here at the zoo and are staying.

After the initial surprise of their sudden appearance in such great numbers, we have enjoyed observing wild vultures and their behaviors here at Cameron Park Zoo.