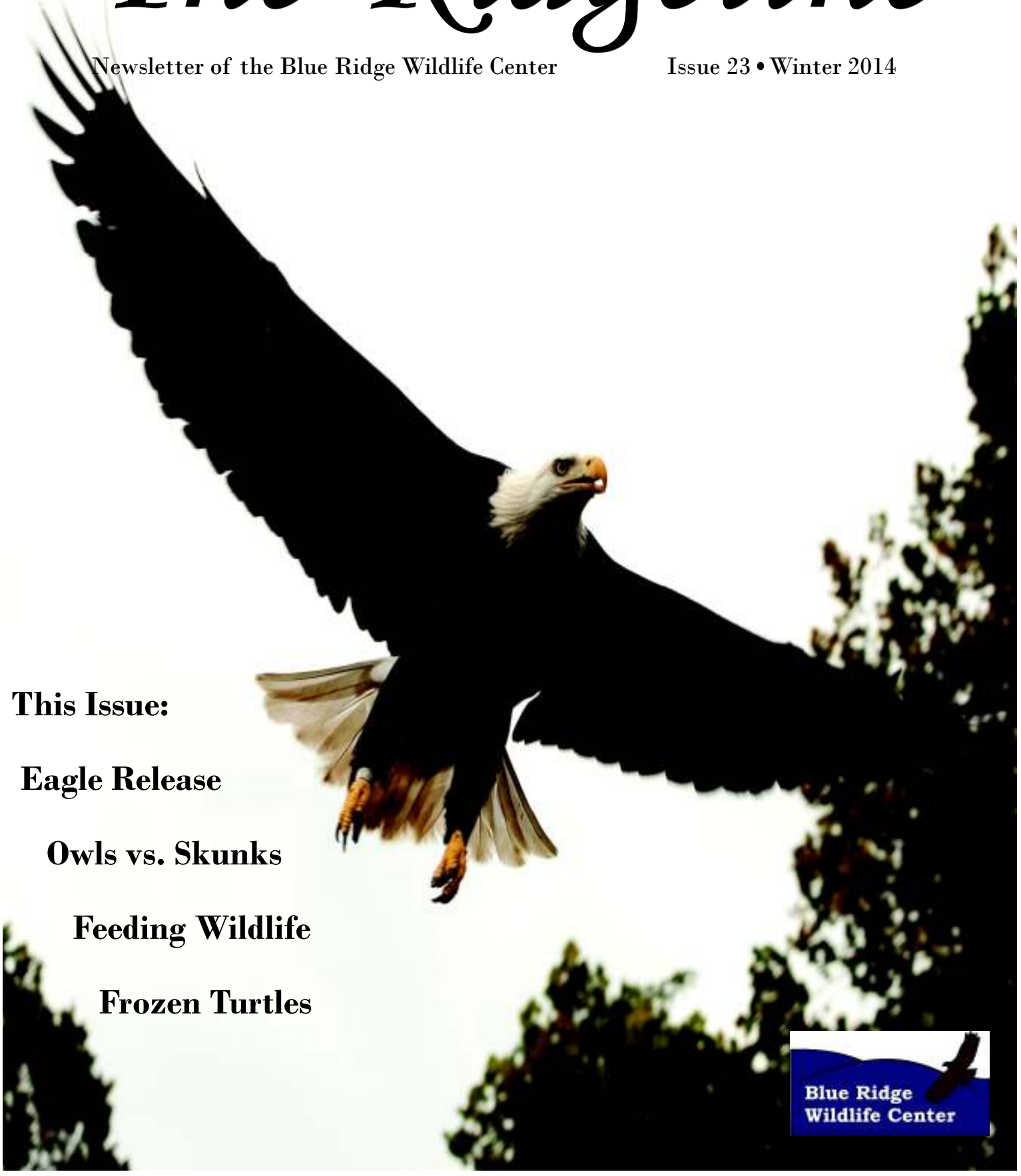
The Ridgeline

Newsletter of the Blue Ridge Wildlife Center Issue 23 • Winter 2014



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Blue Ridge Wildlife Center

Letter from the Director…..

Happy Anniversary Blue Ridge Wildlife Center !

This is a landmark year for the BRWC as we celebrate the 10th anniversary of the opening of our Wildlife Hospital and Rehabilitation Center. This is a good time to reflect on how much we have accomplished during this time, and to look forward to what lies ahead.

In 2004, the year we opened, our Center rescued and cared for 117 animals. As word spread that this area now had a hospital rehabilitation center for wildlife, our caseload increased 1500% from 2004 to 2013, when we rescued 1,839 animals. We have experienced this same increase in telephone calls to our wildlife hotline, where a grateful public has discovered they can receive advice about wildlife emergencies 365 days a year.

It is because of this huge increase in the need for our programs and services that the BRWC now needs to expand its facility. With the help of our supporters, we hope to soon break ground for a larger Wildlife Hospital, Rehabilitation Center, and Education Center.

In this new facility, our wildlife hospital will have an imaging room and surgery suite, so we will no longer need to transport injured animals to a local veterinary hospital for these services. Having these facilities in our wildlife hospital will also enable us to begin a teaching program for veterinary students interested in wildlife medicine. Our wildlife rehabilitation facilities will be expanded, so we will have more rooms to house sick and injured species and never need to house predator and prey together in the same room. These rooms will be easier to disinfect and, in addition, there will be an isolation room to ensure prevention of the spread of disease.

An important addition to our facility will be the indoor classroom where we can invite school children and the public to attend programs and seminars. Currently, our programs are held outside, or at another facility, limiting the number of programs we offer and sometimes requiring us to transport our educational animals long distances. Education of future generations in wildlife stewardship is a large part of our mission, and will finally be realized through this addition to our facility.

The growth of the Blue Ridge Wildlife Center is a testament to the need for wildlife rescue, rehabilitation, and education. With the continued support of donors like you, we hope to always be able to fulfill that need.

Belinda Burwell, DVM
Executive Director

Above: ***Dr. Burwell with the wild bald eagle released on New Years Day.***

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Post Office Box 326
930 Tilthammer Mill Rd
Millwood, Virginia 22646
Wildlife Hotline: 540-837-9000
www.blueridgewildlife.org

The Blue Ridge Wildlife Center is a 501©3 charitable organization established to provide assistance to injured and orphaned native wildlife and helpful information to the public of northern Virginia, the Shenandoah Valley, and beyond. The Center provides quality rehabilitative care for wildlife and operates the **Wildlife Hotline** at **540-837-9000.**

The Center also presents environmental education programs for people of all ages. Schools and organizations are invited to call for scheduling and fees.

The Center relies entirely on private donations. It receives no funding from federal, state, or local governments. Contributions are tax-deductible. The BRWC is very grateful to the Burwell– van Lennep Foundation for the free use of its cottage and 18 acres of land on the Island Farms in Boyce, Virginia.

Follow our wildlife stories on Facebook!

Cover Story

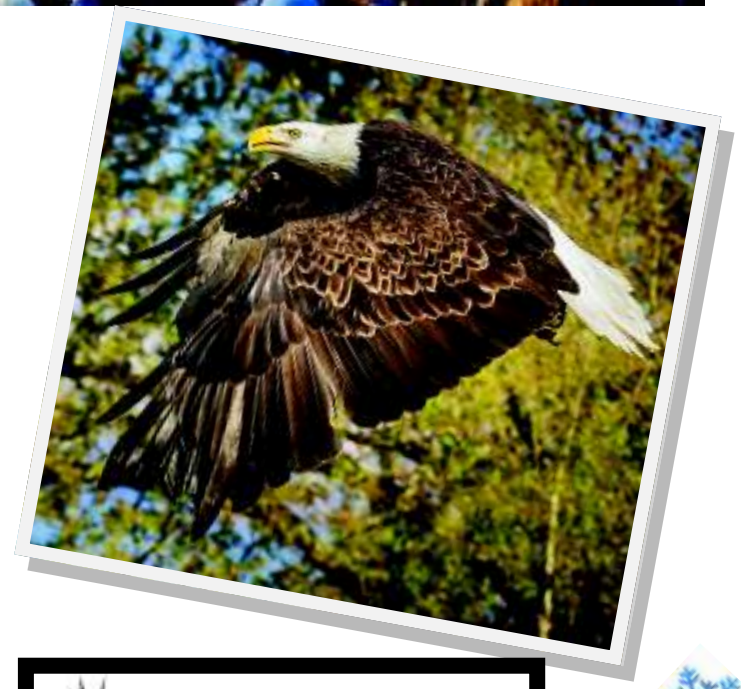
Eagle Release

What better way to celebrate the start of the New Year than with the release of a rehabilitated bald eagle. On October 8, 2013, a vehicle struck an adult bald eagle on I-66. Highway patrol responded to the accident and brought the critically injured eagle to the BRWC for treatment for shock, trauma, and a fractured wing. Once he was stable, the eagle was taken to surgery where pins were needed to stabilize the badly fractured wing.

Four weeks later, after the wing had healed and the pins were removed, the eagle was placed in our large flight cage to see if he would be able to fly again. The wings of large birds such as eagles need to be in perfect condition for them to fly and fortunately for this eagle, his wing healed perfectly and he could fly. After a couple of weeks of exercise to build up his strength, he was ready for release.

Wild animals have a better chance of survival if released back into their home territory, so it was a priority to release this adult eagle back home where he probably had a mate (eagles mate for life), and where he would know where to find food, water and shelter. However, we did not want to release him too close to I-66. Using Google Maps, we found a location with access to the Shenandoah River, less than a mile from where he was hit: the Low Water Bridge.

On New Year's Day, the river was very high, and the bridge and parking lot were under water, but that didn't deter a large crowd of more than 250 people from coming out to watch. Some of the spectators were stranded on the other side of the river by the high water, but all were able to watch this beautiful eagle once again take to the skies and fly over the river. His was such an uplifting story, it was picked up by news organizations in the surrounding counties, and video of the release was shown on the NBC Evening News in Washington D.C..



Top and middle photos: Eagle release by Scott Turnmeyer
Cover and Bottom photo: Eagle release by Sean Albee

Wildlife Sanitation Workers

Cleaning up trash is an important chore for all communities. We recognize that trash is not only unsightly, but also unsanitary, and accumulations can lead to the spread of disease.

But what about "natural trash"? Natural trash can include dead animals and vegetation which not only look and smell terrible, but can also lead to disease. Fortunately for us, nature has its own sanitation workers. Vultures, crows, opossums, raccoons, box turtles, and many types of insects are nature's sanitation workers. Without them, we would find it very unpleasant to spend time outside.

Most people don't think kindly of vultures, and in the vernacular, to be a vulture is to take advantage of others. But the important job vultures do for the environment should not be taken for granted. India recently learned the importance of vultures when their native vulture population was almost wiped out after millions died from feeding on cattle carcasses treated with a medication toxic to the birds. Without vultures, animal carcasses were left rotting in the heat rather than being cleaned up, contaminating land and water supplies and attracting rats and feral dogs which were spreading rabies. So, when you see a vulture, be grateful for the work they do for our environment.

The BRWC currently has 4 turkey vultures recovering from being struck by vehicles. This is a common occurrence because road kill attracts the vultures to the road where they are at risk of being hit.

Two of these vultures were suffering from head trauma, and two had wing injuries. An interesting finding is that all of them had lead in their blood. As scavengers, vultures are likely to consume carcasses that were carelessly left behind by hunters using lead ammunition. The fragments of lead left in the carcass are then consumed by the vultures, causing lead toxicity. These vultures were not showing neurologic paralysis caused by severe lead poisoning, but this lead in their blood and nervous system could have been affecting their reaction time, as it does in people, increasing the chances of them being struck on the road. Three of these vultures are almost ready for release, while the fourth is still suffering the effect of his head injury and may remain in captivity as an education animal.


Photo credit: Romy Walker

Did you know: A turkey vulture can smell a dead carcass from over a mile away.

Did you know: Vulture stomach juices are so acidic they can burn the skin. This strong acid kills the bacteria in a carcass that would make other animals sick if eaten.

Did you know: Vultures vomit when threatened. If they have gorged and their crop is full, they do this to empty their crop and make themselves lighter to fly away. In addition, the vomit is used to distract whatever is threatening them. (It sure does!) Sometimes, if the other animal is hungry, it will eat the vomit instead of the vulture.

Did you know: Vultures urinate on their legs to kill the bacteria they walk through and to them help them keep cool through evaporation.

Why Are There So Many Hawks?

Have you wondered why we see so many hawks along the roads in the winter? Is it because the leaves are off the trees and these hawks are more easily spotted? This is only part of the reason. Winter weather brings many of the red-tailed hawks, red-shouldered hawks, and even eagles that live north of us to this area for the milder weather.

In addition to the increased numbers of hawks spending the winter here, we also see so many alongside the road because that is where they find rodents and the other animals they like to eat. Obviously, the roadside is a very dangerous place for them to hunt. In fact, most of the hawks and owls admitted to our wildlife hospital have become injured by being struck on roads.

Why are there so many animals alongside the road? Part of the cause is that litter thrown from cars often contains small amounts of food and sugary drinks, which attracts rodents and other mammals

to the side of the road. Many of these animals feeding on the litter are hit and killed, providing an easy meal for animals that feed on road kill, creating a deadly cycle.

Everyone can help keep these animals safe by remembering never to litter, including biodegradable materials like apples and gum. In addition, removing dead animals from the road protects the animals that feed on them.

Frozen Turtles

Wild animals have developed a variety of strategies to help them survive winter, a time of cold temperatures and decreased food supplies. Cold-blooded turtles, for example, go into a state of "brumation" where their body temperatures fall to near freezing ambient temperatures, their metabolism slows, and their heart may beat only once every *ten minutes.* Most of this area's turtles keep from freezing to death by spending their winters below the frostline in mud at the bottom of a pond or stream. Turtles have lungs and breathe air, but when brumating, their metabolism slows so much they don't need to breathe, and can absorb the small amount oxygen they require from the water through the lining of their mouths and their cloacas. Rarely, in stagnant ponds that freeze over for an extended period, turtles can suffocate if all the oxygen in the water is used up.

Box turtles do not brumate in water, but remain on land buried in dirt and leaf litter, and usually above the frostline. So how do they keep from freezing to death? They do freeze, and in fact, can tolerate freezing about 50% of their body. Before brumating, their bodies produce increased levels of glucose in their vital organs, which acts as an antifreeze that prevents ice damage to their cells.

We hope these amazing adaptations help our wild brumating turtles survive this unusually cold winter.

Eastern Screech Owls Injured When Trees Cut Down

Over the winter, we had two eastern screech owls admitted when the trees where they were living were cut down. These little owls' homes were in holes in these trees, and in both cases, they were hiding inside when the tree came down. Not only did each end up with a broken wing; they also lost their homes.

Eastern screech owls are small owls that live in this area year round. Even though they are a predator of other animals (mostly rodents and large insects), they are preyed upon by other raptors and sometimes raccoons. Cavities in trees are needed as hiding places and also for nesting.

One of the owls had a compound fracture to his wing that required surgery to repair his fracture. After he had healed and was flying again, we put a portable owl box in his flight cage for him to use as his new home. Once he was ready for release and using the box as his home, we took his new home, with him in it, and placed it on a large tree in the area where he was found.

The second owl broke the metacarpals in his wing, the bones in the hand part of the wing that support the primary feathers. This type of injury takes longer to heal, but when he has completely healed, we plan to do the same thing with him, giving him an owl box to use as his new home.

Owls and Skunks

Just before Halloween, we were called out to rescue a great horned owl that was on the ground and not moving. He appeared to be very sick with an injured eye, and he smelled very strongly of skunk. Once we got him back to the Center, our veterinarian determined that he had a corneal burn on his right eye, and because of the very strong skunk smell and the dark staining of the feathers around his right eye, we guessed that a skunk had sprayed him right in the face. Skunk spray not only has a bad odor, it contains strong chemical irritants.

Skunks have scent glands in both sides of their anus where they create and store this strong smelling fluid. They only carry enough of this repellent for about 5 sprays, and because it takes days to make more, they only use it when absolutely necessary.

When threatened, skunks will first stomp their feet and grunt as a warning. If this doesn't work, they will raise their boldly striped tail, which most animals recognize as something to avoid. Only if the threat continues will the skunk spray, aiming for the face and eyes where they can create the most pain and stopping power. They can spray to a distance of 10-15 feet with incredible accuracy.

This spray contains a combination of odiferous sulfur-containing thiols and thioacetates. Most of the odor can be neutralized using hydrogen peroxide and baking soda, but the thioacetates can continue to be hydrolyzed into more stinky thiols by exposure to water, which explains why the odor on a sprayed dog can come back when the dog gets wet. In this owl, the irritating spray had caused corneal ulceration and conjunctivitis in the right eye, leaving him grounded and unable to hunt. It took him months to completely recover and build up strength for release. In January, he was ready to be released back on the farm where he was found.

Skunks in Winter

Skunks are not true hibernators, but do spend most of the winter sleeping in an underground den. They can dig their own dens or will sometimes use an abandoned groundhog hole.

February is their breeding season when they will wake and venture out to look for mates. Skunks have good hearing, and a good sense of smell, but poor vision, which may contribute to the large numbers that are hit on the roads.

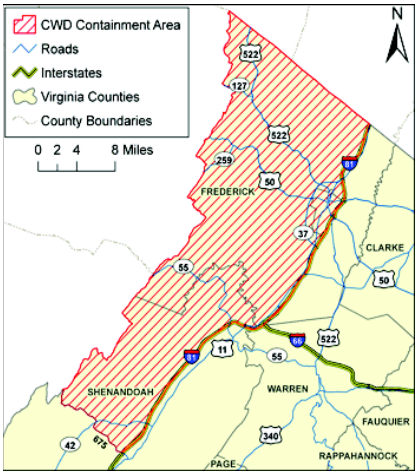
After mating, skunks return to their dens to wait until spring. The females give birth to 4 to 6 kits in April or early May. Male skunks do not help with the raising of the young. Skunks have few predators except for humans, pets, and great horned owls.

Why was this owl sprayed by a skunk? Great horned owls are one of the few predators of skunks, but this time, it appears the skunk won this fight.

Upper Right: Great horned owl that had been sprayed in the eye by a skunk Above: The same owl after the right eye had healed, but showing the staining of the feathers around the eye.

Chronic Wasting Disease Continues to Spread

Chronic wasting disease (CWD) is a slowly progressive and fatal brain disease of white-tailed deer similar to bovine spongioform encephalopathy (mad cow disease), and Cruetzfeld-Jacob disease (CJD) of people. CWD is spread by a prion, which is not a bacterium or a virus, but an unusual protein that cannot be destroyed, even by incineration. This prion is spread from deer to deer through contact with saliva and urine, and recently it's been determined that prions can remain infectious for many years in the soil and when taken up into plants growing in this soil. Ingestion of contaminated soil and plants are other ways deer can contract the disease. Fortunately, there is no evidence this prion is infectious to people.



CWD has been slowly spreading in deer and elk populations in the western U.S. since 1967, but was not found on the east coast until 2005 when CWD infected deer were discovered in West Virginia. Since that time, the disease has spread to wild deer populations in Virginia and Pennsylvania. Infected deer have been found in Frederick County, VA, all within the CWD Containment Area (CA), an area west of I-81 in Frederick and northern Shenandoah County. The CA was formed by the Virginia Department of Game and Inland Fisheries (DGIF) to help monitor and prevent the spread of the disease. There are strict rules governing the handling of deer in that area to prevent potentially infected deer from being moved out of that area and infecting new areas of the state.

Last fall, one infected deer was found very close to the eastern perimeter of the CA, showing that the disease is spreading widely within the CA. You can help by not feeding deer, a practice that causes deer to congregate and spread saliva, and consequently spread the disease. DGIF has banned the feeding of deer in Frederick, Shenandoah, Clarke, and Warren Counties. In addition, if you see injured or sick deer, or orphan fawns, don't move them without talking to someone at the **BRWC 540-837-9000,** or the **VA Department of Game and Inland Fisheries** at **540-248-9360** or at **804-367-1258**.

Backyard Wildlife: To Feed or Not to Feed

Everyone loves observing wildlife, but inviting them to dinner at your home can lead to problems. Some wild animals, while cute to see up close, can quickly become a nuisance, and even dangerous, once they associate your home with food. For some wild species, there are laws against feeding them, while for others, like songbirds, back yard feeding can be a joy.

Which animals are you not allowed to feed? It is against the law to feed bears in Virginia. You also are not allowed to feed deer between September and January 1, or year round if you live in Frederick, Clarke, Warren, or Shenandoah Counties. Which animals can become a nuisance if you feed them? Raccoons will quickly learn where there is a free meal, and sometimes large groups will begin showing up looking for food and will break into trashcans and sometimes come through screens. Skunks and foxes will also take advantage of free food. These wild animals will naturally defend a found food supply from a dog or cat, so this can be a cause for fights between pets and wildlife.

A bird feeder is a great way to observe songbirds. But there are a few things to know before you start attracting birds to your backyard. Is the area safe from predators such as cats and dogs? You don't want to lure these wild birds to their death. Are you committed to feeding them all winter? When winter approaches, birds will migrate to areas with a steady supply of food. If you begin to feed them in the fall so they stay around, you must continue to feed them until their natural foods are available again the next year.

When birds gather at a feeder, they can spread disease, so it is important to keep the area clean. Weekly raking under the feeder can help prevent the spread of salmonella. Bleaching the feeders once a week can help prevent the spread of a contagious eye disease of finches and grosbeaks caused by mycoplasma bacteria.


Photo by Romy Walker

Blue Ridge Wildlife Center

Post Office Box 326
930 Tilthammer Mill Rd
Millwood, VA 22646-0326

BRWC Hotline: 540.837.9000

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Has your dog been sprayed?

If your pet has been sprayed by a skunk, soak your pet with this mixture:

1 quart of 3% hydrogen peroxide (from drug store)

1/4 cup of baking soda (sodium bicarbonate)

1 teaspoon of Dawn dish detergent

After 5 minutes, rinse with water. Repeat if necessary. This mixture may bleach the pet's hair.

Some additional tips: Do this outside so the volatile skunk odor does not contaminate your house. To remove residual skunk odor from your clothes, towels or other surfaces, you can use one cup of liquid laundry bleach per gallon of water, but this will bleach the color from clothes and surfaces. Bathing an animal in tomato juice was believed to work because high doses of skunk spray will numb the human nose to the odor (olfactory fatigue). When this happens, the odor of tomato juice can still be detected, so a person suffering olfactory fatigue to skunk spray will swear that the skunk odor is gone and was neutralized by the tomato juice. A person new to the scene will be able to still smell skunk!

BRWC Partners with the Humane Society of the United States

The HSUS has teamed up with the BRWC to promote awareness of the deleterious effects of the lead in lead ammunition and fishing tackle when consumed by wildlife. Publicity surrounding the lead poisoned eagles undergoing treatment at the BRWC caught the eye of the HSUS, which is also working to increase awareness of this preventable cause of death of so many wild animals. By working together, we can reach a larger audience and contribute real life stories of how this problem is affecting wildlife.

Lead poisoned eagle

Follow us on Facebook! Learn about Virginia wildlife and stories about rescue and rehabilitation.