

# The Ridgeline

NEWSLETTER OF THE BLUE RIDGE WILDLIFE CENTER

ISSUE 43



## Caring for Native Wildlife

*Radiograph of Eastern Ratsnake who  
mistakenly ingested a ceramic egg.*

Chronic Wasting Disease | Wild Birds in Decline | Rehab Corner | Externships | All Creatures Great and Small Gala

# Fall Transitions



**Fall** brings about many transitions—for animals, plants, and our organization.

- Reptiles and amphibians are hunkering down for the winter—any disruption to their state of quiescence could be life-threatening.
- Some mammals are preparing to hibernate through the cold weather, while others are storing their caches to be withdrawn throughout the winter.
- Most birds have started their migratory journey—some not going very far, while others going as far as South

America. Given the loss of habitat in the Amazon Rainforest, we can only hope to see our migratory friends return next spring.

- Most perennials have pulled their nutrients down into their roots waiting for spring to awaken. Some call this the *fifth season* for our perennials—the trees, forbs, and grasses each take on unique beauty during this transition.

As for Blue Ridge Wildlife Center, we are nearing the end of our 19th year caring for native wildlife in the region! We have seen tremendous growth in the demand for our services—especially since 2016 when we moved into our full-service wildlife veterinary hospital. Milestones for 2019, through November 13, are:

- More than 2,200 patients admitted to the hospital;
- More than 130 unique species represented, including species not admitted before, such as Virginia Rail, Swamp Sparrow, Northern Goshawk, American Bullfrog, and Least Weasel, just to name a few;
- Approximately 2800 adults and 4200 children have participated in our education programs and outreach events—a 60% increase over 2018; and
- **The Ridgeline** distribution is 250% of what it was in 2016—reaching over 6,200 households!

With service growth, comes growth in expenses. We do not charge for our wildlife veterinary services—so we are dependent on the generosity of caring people like you. Please consider joining our **Giving Tuesday** campaign on December 3 to help **#GiveAChance** to our native wildlife!

**We are thankful for each of you and our native wildlife is fortunate to have you on their side!**

Sincerely,

Hillary Russell Davidson



Cover photo by Dr. Jen Riley.

## The Ridgeline

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Blue Ridge Wildlife Center is a 501(c)3 organization caring for native wildlife by integrating veterinary medicine, rehabilitation, education, and research.

BRWC is located in Boyce, Virginia on the Burwell van—Lennap Foundation's property on Island Farm Lane.

The Center relies on private donations exclusively. Contributions are tax-deductible.

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Newsletter designed by Dara Bailey Design

# Chronic Wasting Disease

By Jennifer Riley, DVM

**White-tailed Deer** are incredibly common in our area, but unfortunately, rehabilitators in many counties are not allowed to treat them. The treatment of adult deer is not permitted in ANY county, but most counties do allow treatment of fawns. So why not here?

The answer is Chronic Wasting Disease (CWD).

## Facts about CWD:

- CWD is a fatal neurologic disease of many deer species, as well as elk and moose.
- CWD is caused by an infectious protein called a *prion*.
- Prions can be spread between deer by direct contact or through environmental contamination and are found in saliva, feces, urine, or in the soil and water.
- CWD was found in West Virginia in 2005, Virginia in 2009, Maryland in 2010, and Pennsylvania in 2012. It has been found in more than 20 states and in multiple countries, including Canada, Norway, and South Korea.
- The Virginia Department of Game and Inland Fisheries (VDGIF) is the agency responsible for surveillance of this disease and mandates CWD testing days in certain counties during which hunters bring animals to test. Aside from those days, hunters may bring any deer they kill to a drop-off point and request that it be tested.
- Surveillance for CWD is not routine everywhere. Do not assume that deer are negative simply because the government is not testing for it in your area.
- Given current knowledge (or lack thereof) about the disease, the CDC recommends that you DO NOT eat meat from a known CWD-positive animal. Take advantage of voluntary testing programs where available.

***CWD is a debilitating disease and since it incubates for years before clinical signs develop, deer will often appear healthy even when they have the disease.***



White-tailed Deer in Clarke County. Photo by Michael Oak

Clarke, Frederick, Shenandoah, and Warren counties are part of a containment zone for CWD. This means that we have had positive cases in our area, and the state wildlife agency is trying to keep this situation from spreading. As our facility is in Clarke county, it is not legal for us to treat deer. Though we cannot treat them, we encourage people to call us if they have any concerns about a fawn or adult deer as we can direct you to the right resources. If you hit a deer with a vehicle, you should always report it to local law enforcement immediately and follow their recommendations.

In 2019, a CWD-positive deer was found in Culpeper county. Now, a second containment zone has been created to include Culpeper, Madison, and Orange counties. As of this year, transport of

whole deer carcasses out of these counties is now prohibited. On November 16, 2019, deer killed in these counties and Shenandoah County must be brought to a designated check station to be tested. This mandatory testing will not occur this fall in Clarke, Frederick, or Warren counties. As a containment zone, it is no longer legal to rehabilitate deer in these counties, nor is it legal to bring live deer in need of rehabilitation in or out of these counties.

If you eat venison, you should know that there have not been any recorded cases of humans contracting CWD from eating venison. Studies have shown CWD may pose a risk to non-human primates. In a 2005 study, squirrel monkeys were inoculated with brain tissue from a CWD-positive deer and developed the disease.<sup>1</sup> Scientists have not been able to replicate this in other non-human primates, suggesting that there is likely a significant species barrier. That said, because monkeys were able to contract the disease and due to previous concerns over



prion-based diseases such as Bovine Spongiform Encephalopathy (“mad cow disease”), the Center for Disease Control (CDC) recommends that humans DO NOT EAT venison from known CWD-positive deer.

CWD is a debilitating disease and since it incubates for years before clinical signs develop, deer will often appear healthy even when they have the disease. Young animals can be infected even though they show no signs. The state is actively managing this disease to prevent it from seriously impacting our deer populations. Once established in an area, CWD is extremely difficult (if not impossible) to eradicate. It is critical that you follow regulations set out in the management guidelines to help prevent this disease from spreading further.

#### What can you do?

- Follow all hunting permit conditions. Make sure you check annually as regulations change.

- Do not feed deer. Feeding deer or even providing mineral licks is now banned throughout the year in our state. These sites artificially congregate deer, facilitating disease spread. Licks and leftover food can serve as reservoirs for the disease.
- Know the transport restrictions! Do not move live deer or carcasses out of affected counties or the state.
- If deer are uninjured, leave them alone! Many young fawns are kidnapped each year because people find them alone. Remember that fawns will frequently stay in the same place mom left them (often right beside your home or garden). Mom will only come back once or twice per day to feed, so mom’s absence is not a reason to abduct a baby. If mom has been confirmed dead, the best option is still to leave the baby where it is and give it time. White-tailed Deer are known to adopt fawns found on their own. If its own mother is dead, being raised by another doe is the baby’s best option. If these babies begin to look weak and no adult has assumed

responsibility after 24 hours, we recommend calling the Center or your local permitted rehabilitator for advice.

- Rehabilitating deer without proper permits and training is illegal and unsafe. It is NOT in the best interest of the animal. Follow the guidance of permitted rehabilitators and law enforcement if you come across a deer that you believe is in need of assistance.

For more information, consider the following online resources:

1. <https://www.dgif.virginia.gov/wildlife/diseases/cwd/>
2. <http://cwg-info.org/>
3. <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/NVAP-Reference-Guide/Control-and-Eradication/Chronic-Wasting-Disease>. ■

#### Footnote

<sup>1</sup>Marsh, R. et al, Interspecies Transmission of Chronic Wasting Disease Prions to Squirrel Monkeys (*Saimiri sciureus*). J Virol. 2005. 79 (21): 13794-13796.



A Center volunteer found the fawn on the far right crying out for hours—a classic sign that mom is not present and the baby is getting hungry. These babies, if well fed, should stay quiet and curled up on the ground. Luckily, another doe with a single fawn came across this baby and allowed the slightly older fawn to join their family. This suspected orphan fawn was very lucky that the volunteer knew to stand back and monitor and even luckier that another doe assumed responsibility. As this fawn was in a CWD containment zone, there would have been no other rehabilitative options. Photo by Michael Oak



# The Devastating Loss of our Wild Birds

By Jennifer Riley, DVM

We have lost nearly three billion breeding adult birds in the U.S. and Canada over the past 50 years. This loss is unlike anything recorded before and it is yet another piece of evidence supporting the terrifying reality that our human-altered landscapes are losing their ability to support our avian species. As we lose these birds (and many non-avian species), we are losing biodiversity. This changes the make up and function of ecosystems which can ultimately lead to devastating changes in the environment that will impact humans and other plant and animal lifeforms. The article “Decline of the North American Avifauna” in *Science* this past fall highlights the importance of these major losses in abundance of groups of animals whereas many humans too often focus on the sad, but less impactful extinctions of individual species. The full article is worth reading and can be found online. “Decline of the North American Avifauna,” K.V. Rosenberg et al., *Science* 10.1126/science.aaw1313 (2019).

Luckily knowledge is power and with this knowledge, we all have the power to work on reversing these population declines. The Cornell Lab of Ornithology has highlighted seven simple actions that



anyone can take to help bring our birds back. We strongly encourage you to do ALL of these things as they benefit not just our birds, but all wildlife, the environment, and ultimately our own species. Learn more at <https://www.birds.cornell.edu/home/seven-simple-actions-to-help-birds/>.

## 1. Make Windows Safer

We have taken in MANY window strike birds—especially in the fall as many of these species are migrating. Adding screens, curtains, shades, and decals can break up reflections and help these birds avoid the glass.

## 2. Keep Cats Indoors

Cats, even outdoor and feral individuals, are a domestic species that were set free in our environment by humans. Though they are naturally predatory, they are NOT native predators and they wreak havoc on our ecosystems. In addition to killing billions of birds, reptiles, small mammals, and other wildlife each year, they can spread diseases that are harmful to us, such as toxoplasmosis. To make matters worse, outdoor cats suffer reduced lifespans as they are susceptible to diseases, predators, vehicles, and other dangers. When it comes to bird population loss, cats are second only to habitat destruction. If you own cats, please keep them indoors. Speak out against feral cat colonies in your community or on public lands. Outdoor



The Veery (left) and the Virginia Rail (right) came to us after window collisions and were released in just a few days to continue their migration journeys. We have also treated Common Nighthawks, Purple Martins, a variety of warbler and thrush species, and many others this fall! Photos by Dr. Jen Riley.





This Gray-cheeked Thrush came to us as a cat attack victim. The attack resulted in a humerus (wing bone) fracture. This animal is still in care.

Photo by Dr. Jen Riley.

cats are harmful to the ecosystem and to themselves. Humans can change this for the benefit of all.

### 3. Reduce Lawn, Plant Natives

Many people make the mistake of thinking the lawn in their yard is natural. This non-native monoculture does very little to offer food or shelter for wildlife. A well-manicured lawn destroys habitat, just like an office building or parking lot. Native plants will provide a food source for wildlife and make your yard a haven,

not another area of habitat destruction. It will also make things easier for you! With the time you save mowing and raking, you can enjoy birdwatching in your own backyard!

### 4. Avoid Pesticides

Many pesticides are toxic to wildlife. Help our wild neighbors by eliminating (or even just limiting) your use of pesticides to control weeds and insects. Pull weeds rather than spraying when possible. Buy organic. If you're not using the area, let the weeds grow!

### 5. Drink Shade-Grown Coffee

Most of the coffee we drink is grown in the sun. To get the sunlight on these trees, forests are destroyed. Shade-grown coffees support bird habitat. Look for labels showing the Smithsonian Migratory Bird Center's "bird friendly" certification or the Rainforest Alliance certification.

### 6. Use Less Plastic

Plastics end up in our landfills and oceans where they are ingested by wildlife and cause immeasurable harm and loss of life. Avoid single-use plastics and recycle or reuse plastics you cannot avoid.



This juvenile Laughing Gull came to us from a landfill site in Prince William County. It was euthanized on intake due to severe pneumonia and associated complications. Necropsy revealed bits of plastic, glass, and other trash in its stomach. Photo by Dr. Jen Riley.

### 7. Engage In Citizen Science

If you enjoy watching wildlife, science can benefit from your observations! Join a citizen-science project such as **eBird**, **Project FeederWatch**, the **Christmas Bird Count**, or **Breeding Bird** surveys. If you are in our state (Virginia) there are many opportunities to help through the Virginia Department of Game and Inland Fisheries. Participate in the Virginia Breeding Bird Atlas, donate to the agency's non-game fund, or (if you are a landowner) contact the department's Private Lands Wildlife Biologists who specialize in onsite land evaluations and management planning.

Humans caused this decline and it is up to us to help bring these birds back and save our environment! ■

#### For more info

- <https://www.allaboutbirds.org/vanishing-1-in-4-birds-gone/> "Decline of the North American Avifauna," K.V. Rosenberg et al., *Science* 10.1126/science.aaw1313 (2019).
- <https://birds.cornell.edu/home/wp-content/uploads/2019/09/DECLINE-OF-NORTH-AMERICAN-AVIFAUNA-SCIENCE-2019.pdf>.

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**I'm Helping Birds!**

- Make Windows Safe
- Keep Cats Indoors
- Less Lawn, Plant Natives
- Avoid Pesticides
- Drink Shade-Grown Coffee
- Use Less Plastic
- Watch Birds, Share What You See

Find out more: [bit.ly/7-simple-actions](http://bit.ly/7-simple-actions)

The Cornell Lab of Ornithology

Wood Thrush by John Petrucci/Macaulay Library 56732651. Graphic by Sarah Seroussi.



# When Caring Hurts

By Cara Masullo, LVT and Jennifer Riley, DVM

**Careers** that involve the care of others can take a toll on a person, both mentally and physically. This includes health care professionals and other care givers, such as the staff of BRWC. The individuals who go into these types of professions are often ones that may wear their heart on their sleeve and treat their work as a mission, not simply a job. We do it because we care, because we want to make the lives of these beings better.

But caring comes at a cost. Though suicide rates in veterinary professionals have been high for decades, major studies are just now being conducted to better understand the situation. A 2018 study by the Centers for Disease Control and Prevention (CDC) found that female veterinarians were 3.5 times more likely (and male veterinarians 2.1 times more likely) to die by suicide than the general population. Mental health issues are multifactorial, but this study found that some of the major factors contributing to this epidemic in veterinary medicine were the demands of practice (long hours and general work demands), ever increasing debt to income ratio, poor work-life balance, and access to euthanasia solution. Many veterinarians pointed to client reactions including failure to meet expectations, frustrations over costs of care, and cyber-bullying as additional factors. Despite many new studies shedding light on this epidemic in veterinarians, all too often, little is mentioned at all about support staff.<sup>1</sup>

When dealing with severe trauma and death on a day-to-day basis, we often create our own ways to cope, which enables *compassion fatigue* to set in for animal care professionals. Compassion fatigue is a condition characterized by increasing indifference to traumatic situations caused by the frequency of experiencing such events.

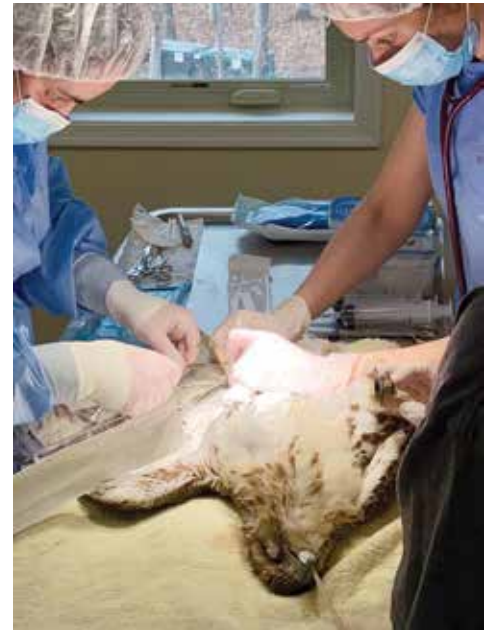
Related to compassion fatigue is *burnout*. It presents as emotional, physical, and mental exhaustion that occurs

when you feel overwhelmed, emotionally drained, and under prolonged stress. Working in these types of conditions greatly contributes to mental health challenges for all involved. Veterinary technicians, wildlife rehabilitators, animal control officers, and even administrative support staff, also tend to experience compassion fatigue and burnout at higher rates than the general public.

The public often assumes that the euthanasia process and its frequency would be one of the biggest issues in the field contributing to this epidemic. Though it is certainly a factor, studies have shown that this is a relatively infrequent reason indicated by veterinary professionals. A 2016 survey from the National Veterinary Technicians of America found that the greatest cause of compassion fatigue and burnout is, in fact, how we treat each other. Office dynamics and interactions with humans were the most commonly cited problem in the survey. This was followed by “client non-compliance” and “lack of financial resources within the clinic.”<sup>2</sup>

Client compliance, or lack thereof, can be challenging for veterinary professionals. Many wildlife cases end in euthanasia due to lack of finder compliance. Though they have the best intentions, many finders attempt to feed or provide care themselves despite our advice against it. Sadly, this often leads to aspiration pneumonia, worsening infections, or refeeding syndrome.

There are also legal requirements and other non-negotiable issues that may make euthanasia the only humane option. This can cause excessive backlash from the public who make these staff members out to be money-hungry or uncaring, while it leaves the veterinary staff saddened and



Dr. Riley and Cara in surgery on a Red-tailed Hawk.  
Photo by Jessica Andersen

disillusioned with their career. Though some people might consider euthanasia the worst possible outcome, those in the veterinary field know firsthand that it is a far more humane option than a painful death or a lifetime of suffering in captivity with chronic stress or medical conditions. Everyone who works in these professions does so because they care about animals and want to relieve their suffering. No one goes into it for money or to ruin your day.

Cost of care is another aspect that all veterinary facilities must consider; lack of funds frequently limits the care that can be provided to a patient for both owned and wild animals. Though veterinary professionals would love to be able to give the best care at an affordable cost to all patients, money must come in to keep the hospital running. Including the costs of medical equipment, diagnostics, treatment, salaries, insurance, and simply keeping the lights on, providing medical care is expensive. Just because those in the profession love these animals, it doesn't mean they can afford to treat animals for free.

In the field of wildlife medicine, money

***A 2016 survey from the National Veterinary Technicians of America found that the greatest cause of compassion fatigue and burnout is, in fact, how we treat each other.***

# Wild Animals Feel Stress Too!

Mental health is not only a concern for staff, but for the animals too! For our wild patients, it is important to recognize the main types of stress they face between becoming injured and being released.

- Physical pain
- Finder interactions
- Stress of hospitalization

It is easy to imagine that physical pain can be stressful—this is true for humans as well and does not require further explanation!

Finder interactions and responses can truly be the difference between life and death. Keep in mind that wild animals view you as a predator. Holding, cuddling, and singing lullabies may help relieve stress in a human baby, but these actions could literally kill a wild animal. Animals that “seem comforted” by these actions are likely stressed or suffering from severe trauma. Their bodies are often shutting down and they have no ability to react, which may make it falsely appear that they at ease. If you find an injured animal, please keep it warm, dark, quiet, and out of human view/earshot while you call a permitted rehabilitator to determine the best course of action.

Once in the hospital, the stress from pain, human presence, and enclosures must be carefully managed. Pain medications and sedatives can be an important part of managing stress medically. Light-

ing, caging, temperature variation, ambient noise to drown out human-made sounds, and many other factors go into creating the least stressful hospital environment possible. Once major medical issues are addressed, and the animal is feeling better, mental stimulation becomes critical.

Enrichment keeps our patients stimulated and allows them to practice their natural behaviors. This may include items that promote foraging, different climbing structures or new food items, or any other novel item, smell, or sound. Some species that have exhibited higher cognitive abilities, such as corvids (crows, jays, magpies), need extra enrichment or they may exhibit unnatural and detrimental behaviors like self-mutilation (e.g. pulling out feathers).

Other animals may exhibit unnatural behaviors in isolation or captivity such as constant pacing or self-mutilation. Imagine sitting on an airplane for days, weeks, or even months, which is the time some patients may require in care depending on their condition or situation. Animals that naturally have a larger habitat or home range fall victim to boredom when they are not given enough mental stimulation and ability to practice their natural behaviors. This could lead to an extended time in care or a worse outcome overall.

Please think about the mental state and stress levels of animals that you rescue. Their lives may depend on it.

is an even bigger issue as no one is paying the patient’s bill. Though many permitted rehabilitators (including most of those at our facility) are volunteer, even they must receive donations or have a separate paying job to support their work. It is not legal to charge for rehabilitation services and there is no state or federal funding for rehabilitation, so our ability to provide high quality care relies entirely on the generosity of donors. Without the concern and compassion of private citizens, we would not be able to do what we do to help these animals—the love of animals is simply not enough for rehabilitators to sustain quality care for the long term.

A common situation we experience is when a finder calls looking for advice about an animal they have found and, in their panic, they do not take the time to talk through the situation with us. Though we understand the frantic nature of some situations, it is important that we obtain information necessary to assess the situation in order to give the best advice for that animal’s wellbeing; yelling and name calling does not help the situation and definitely does not help the animal in question. Being kind and patient with one another does help.

Though funding can be extremely challenging in this field, there is something you can do to help without donating a dime! Please recognize that your veterinary team, whether for a pet or a wild animal, is here to help. They want a positive outcome just as badly as you do! Recognize that words have consequences. Harsh words, name calling, accusations, and threats will not save the animal you brought into care, but kind words can go a long way to improve the lives of those working tirelessly to help the animals and help you. Be kind to your veterinarians, rehabilitators, and other veterinary support staff. Be kind to your animal control officers. Be kind to each other. ■

## Footnotes

<sup>1</sup><https://www.cdc.gov/media/releases/2018/p1220-veterinarians-suicide.html>

<sup>2</sup>[https://cdn.ymaws.com/www.navta.net/resource/resmgr/docs/2016\\_demographic\\_results.pdf](https://cdn.ymaws.com/www.navta.net/resource/resmgr/docs/2016_demographic_results.pdf)



Our Red Fox patient will be with us all winter recovering from sarcoptic mange. Keeping him stimulated and engaged is an important part of the healing process. Search for “Blue Ridge Wildlife Center enrichment” on YouTube to see videos of our enrichment tactics. Photo by Dr. Jen Riley.



**Blue Ridge Wildlife Center  
Combined Federal Campaign  
CFC# 54098**



# The October First Deadline for Reptiles and Amphibians

October 1st seems meaningless to most people, but for rehabilitators, this day has important meaning—it is the last day reptiles and amphibians can be released back to the wild until May 1st. This means that any patients that are not ready for release on October 1st, must remain in care for an additional seven months. Sometimes, this is seven months in addition to the one or two months they've already been in care. Our Center always monitors our patients closely, but especially near the end of September, we are assessing our reptile and amphibian patients daily to make sure that everyone ready to go can be released before the deadline.

This deadline is put in place by our state's wildlife agency, the Virginia Department of Game and Inland Fisheries, and our permits require that we abide by this regulation. Having this rule in place DOES have its purpose; it prevents patients from being released too late (or too early) in the season, potentially jeopardizing survivability if cold weather sets in. Rehabilitators would not release these patients during cold weather for survivability reasons, but this regulation



This Eastern Box Turtle was one of the many released this fall prior to the October 1st deadline.

certainly removes the guesswork.

Of course, just because the deadline is in place, it doesn't mean that reptiles and amphibians have stopped being admitted! In the week after October 1st, we took in nearly a dozen reptiles and amphibians that had all suffered from injuries and required care. These patients are set to spend the winter with us—turtles, with their slow metabolisms, can take two or three

months to fully heal from shell fractures. They will receive necessary medications, be monitored by our staff, and receive food and health care until May. We currently have over a dozen turtles overwintering here at the Center and expect to have more before the end of the year. We are hopeful these guys will all be releasable next spring! ■

## Supporter Spotlight A Passion for Community, Wildlife, Conservation, and Education



Photo by Gary Sousa.

Mike and Wendy Smith are well known for their philanthropic efforts within our community particularly when it comes to animals. Mike was born and raised in Winchester, VA and is the Vice President of Valley Proteins, Inc., a business his grandfather founded more than sixty years ago. Wendy grew up in Hawaii and, though not a Virginia native, she shares a great passion for the land and native wildlife with her husband. Together they have donated their time, talents, and treasures to numerous organizations and have been generous donors to Blue Ridge Wildlife Center since 2012.

Wendy has always been passionate about wildlife and feels that BRWC fills a critical need by caring for wildlife that have been injured, orphaned, or are sick. She sees humans as the biggest threat to wildlife and believes that educating young people helps them develop an interest in, and empathy for, all animals. Wendy hopes that by planting the seeds, BRWC will help young people develop strong convictions about protecting wildlife and their habitat. She and Mike have five children between them, and they all have an appreciation for wildlife.

When at home, Wendy loves taking morning walks and seeing the wildlife in their natural environment, particularly the wild turkeys, foxes, and "that skunk off in the distance." But the snakes seem to have captured her heart. This year she and Mike funded a new dual enclosure for snakes for the Ronald M. Bradley Learning Center. They have also made possible enclosures for other ambassadors which are designed to provide a space that is as close to the animal's natural environment as possible. In addition to the new enclosure for snakes, the Smiths and their friends John Buhl, Jr and Autumn Ambrose funded an enclosure for Goose, a Peregrine Falcon Ambassador.

It is people like Mike and Wendy who make it possible for BRWC to provide necessary and often-times life-saving treatment for animals that come to us for care. With their support and others like them, including BRWC's staff and volunteers, we form a community that recognizes and cares for the land and people who live here and the wildlife whose presence make it such a wonderful place to live.

# Squirrels, Squirrels, and more Squirrels!

By Jessica Andersen

**This** September we admitted more squirrels than we can remember taking in during any second-squirrel season. We've had over 230 Eastern Gray Squirrel patients this year, and from August to the end of September, we took in more than 2/3 of that total! At one point in September, we had nearly 70 squirrels in care at the same time, ranging from babies needing syringe feeding every 2 hours, to older juveniles that filled our five outdoor enclosures awaiting maturity to be released. In comparison, for all of 2018, we only admitted 174 Eastern Gray Squirrels!

Taking in so many squirrels in such a short period of time was very labor-intensive on our staff and volunteers, but even with the large number of a single species, there were many interesting cases! While each squirrel is different and unique, there were a few that were very memorable.

While Eastern Gray Squirrels are our most common squirrel, Eastern Fox Squirrels are also native and common in our area. Fox squirrels are known as “gentle giants” compared to our hyper-active gray squirrels as they are almost twice the size of their gray cousins. This means that, when an infant fox squirrel is the same weight as a gray, they may still require

syringe feedings every 3-4 hours while the gray squirrel will likely be weaned and eating well on its own.

We also received Southern Flying Squirrels this season. Southern Flying Squirrels are quite common, but since they are so small and nocturnal, they are rarely seen by humans. Cats appear to have an easier time finding them as half of our flying squirrel patients were admitted due to cat attacks. They are MUCH smaller than both our gray and fox squirrels, and this small size makes it easier for them to glide from tree to tree, using the furred membrane between their wrists and ankles.

Lastly, we all recognize the light gray, peppered with tints of brown that is the hallmark color palette of the gray squirrel, but just like many other animals, there can be significant color variations within the species. In just a month, we took in a “blonde” squirrel, who was mostly white with some golden coloration on the head and tail, and a “dark” squirrel, who wasn't quite the more common melanistic (all black) variation, but was a dark chocolatey brown with lighter brown highlights around the ears and feet. These two squirrels stood out from their otherwise “normal” color variant conspecifics, but



Eastern Grey Squirrels cuddle with each other to stay warm. Photo by Dr. Jen Riley.

nonetheless grew up with other squirrels, mastered the art of breaking open acorns like every other squirrel before them, and enjoyed a successful reintroduction back to the wild with their gray cage mates.

Squirrels were once looked at and revered with awe as a quintessential beacon of woodland creatures. Now, we see them as commonplace and perhaps even as an annoyance, as they pillage our birdfeeders and steal the fruits of our hard-worked gardens. But seeing squirrels in the suburbs and in more urban places isn't all nature's doing—back in the mid-1800s, squirrels were actually introduced into cities and urban areas to help rekindle mankind's distant empathy towards nature. Seeing these squirrels, and even being encouraged to feed them, was supposed to foster kindness and soften the hard edges of city living at the time. Squirrels took to the urban landscape readily, feasting off the nuts people left and taking advantage of the new acorn-bearing trees planted specifically for them. Now, as more and more cities are dedicating protections and care towards their green spaces, these squirrels are representative of how wildlife and humans are interconnected. Perhaps these squirrels wouldn't have made it as far into urban cityscapes had we not turned to them for help in bringing nature to us. ■



**(L)** This photo highlights the size difference between Eastern Gray Squirrels and Eastern Fox Squirrels. These two are the same age! **(C)** Though we did not have any fully black squirrels this year as we have in the past, we had quite a few dark brown Eastern Gray Squirrels like the one seen here. **(R)** This is a leucistic Eastern Gray Squirrel. Unlike albinos, these squirrels are not lacking all pigment so their eyes are not red, but dark. These squirrels can vary from completely white with dark eyes, to a “blonde” appearance, like this one. Photos by Dr. Jen Riley.



# Rehab + Corner Interesting Cases

By Jessica Andersen

## Imping



Most of our raptor patients are brought to us with broken wings that can take weeks to heal fully and allow for flight. This generally means surgery or bandaging followed by time in small, limited-flight enclosures, then increasing amounts of exercise and re-conditioning until their bones and muscles are strong enough for larger spaces and longer flights.

This adult Turkey Vulture came in with no skeletal injuries, but there was another reason it couldn't fly—all of its primary and secondary feathers were damaged to the point that they could not support flight. This bird was grounded, and it could take months for new feathers to replace the damaged ones.

Earlier in the week, we had received another vulture that was euthanized because it suffered from a badly damaged leg that was beyond surgical repair. The vulture's wings, however, were in perfect condition. Our veterinary staff decided to use a technique called *imping*, using the deceased vulture's feathers to replace the damaged feathers on our newer patient.

Imping is a process that takes a feather and connects it to the cut shaft of the damaged feather on another bird. Imping can be difficult to do without having a repository of feathers already stored and labeled, because you generally need feathers from the same species, and you must use the same type of feather (i.e. the first primary can only be replaced by another first primary, etc.). Though we didn't have any pre-plucked Turkey Vulture feath-

ers, we now had a donor who became the difference between a long, stressful stay in captivity and a quick recovery of flight for our vulture patient.

Since imping, our Turkey Vulture has been moved outside to our circular flight cage, where it is getting used to its "new" wings. Unfortunately, its tail feather shafts were completely pulled (and therefore could not be impinged) in whatever incident this bird got into, so we must wait for those feathers to grow in on their own before release! In the meantime, the vulture can maintain some degree of body condition since it is able to fly in a safe space.



## In Sickness and In Health



We spend a lot of time saving animals, but saving a coupled-pair was a rare and beautiful opportunity! This couple—a male and female American Goldfinch—came in together after having fallen into an open container of tar where the finder was repairing a roof. Thankfully, he got these two into care quickly, where they were assessed and then given multiple baths over a period of days. The male did have a broken, but stable, metacarpal in one of his wings, which was bandaged for comfort and was completely healed and functional in days. The female had no major injuries.

The two birds shared an enclosure and were seen eating and perching together,



with the female even tugging at the male's bandage. We assume she suspected that the bandage, not the metacarpal fracture, was the reason he couldn't fly. She was even seen bringing food to him during the first day in care when he was too weak or groggy to get food on his own. Goldfinches are often high-stress while in care and it was amazing to see how these two seemed to calm and comfort each other.

Thankfully these birds didn't require a long stay—they were eating on their own, fully cleaned and healed after just a week, and successfully released back to their found location together.

## Bald Eagle Patients



We have taken in many Bald Eagles in 2019—three times more than any other year in the past five years! This recent patient is from Fairfax County, VA and came to us after getting into a fight with another eagle. A coracoid fracture was found on exam and bandaged. This patient is now doing well on pain medications and healing nicely.

This time of year can be stressful for Bald Eagles as they fight over territory and prepare for nesting. They are also dealing with the epidemic of lead poisoning. This eagle, like every eagle before her since we began testing all eagles in 2016, was positive for lead. Though not at toxic levels, any amount of lead is abnormal and even sub-clinical levels can cause issues. Eagles scavenge when given the opportunity and lead ammunition left in deer carcasses or

scraps can be a huge problem for them. Please consider switching to non-lead ammunition and encouraging any friends who hunt to do the same.

## Dietary Indiscretion



Anyone who owns chickens has most likely encountered an Eastern Ratsnake at one point or another. They're easily identified by their black coloration along the back, and white and black checkered bellies, and as juveniles, with a hallmark eye stripe that starts in front of the eyes and extends to the margin of the mouth. These snakes are incredibly important to our ecosystem, helping to keep rodent populations in check, which in turn can

help to lower the prevalence of certain diseases, such as Lyme disease. They also keep other snakes, including venomous species, out of their territories. However, they're known for eating eggs, and will certainly take advantage of an unsecured coop for an easy meal.

This Eastern Ratsnake unfortunately made the mistake of swallowing a ceramic egg. Ceramic or wooden eggs are often used by poultry owners to help encourage hens to lay, to lay in specific areas, or even to discourage chickens from damaging their own eggs. One of the uses advertised for these eggs is directed at snakes—if a snake swallows the egg, it will slowly die, as they cannot digest it or regurgitate it once it has reached a certain point in the gastrointestinal tract. Sadly, some people will purposefully put these fake eggs out in hopes of killing snakes to prevent the loss of a few eggs despite the fact that there are many more humane methods of keeping snakes out of coops.

Thankfully, the finder of this snake noticed the unusual bulge too far down the snake's body, and that her fake egg was missing. She realized this snake needed immediate help. Thanks to her quick action, this snake was admitted and underwent surgery to remove the egg from the digestive tract. After monitoring for other digestive issues and treating with the appropriate medications, this snake healed perfectly and was released (just before our October 1st deadline!).

### Need to use fake eggs or prevent snake-caused egg loss?

- Secure your coop (top, bottom, and sides) with small-gauge wire that an adult snake cannot fit through
- Nail the egg down so a snake cannot eat it
- Glue multiple fake eggs together, making them too big for a snake to swallow
- Use a real egg that you mark and replace it every few days
- Check the coop for snakes and other predators before closing it up for the night.

Snakes will eat eggs when eggs are available, but killing one snake simply opens up the area for another to come in and take advantage. To solve the problem, securing the coop (in snake-friendly ways) is key. ■

## Day of Caring

The Annual Day of Caring organized by United Way of Northern Shenandoah Valley was a great success! 30+ volunteers from First Bank, Navy Federal Credit Union, Lord Fairfax Community College, and Valley Health were able to complete multiple projects, filling a 30-yard dumpster with non-reusable parts of old deconstructed caging, cleaning out and reorganizing our downstairs storage rooms, reorganizing our outdoor storage area, and a total redesign and cleaning of the interior of our ambassador raptor enclosures.

We simply could not achieve these results with the 3-5 volunteers we have each day, and this has helped allow our facility to run smoother and benefited our wild patients and ambassadors.

Thank you to all the volunteers who came out from these organizations, and thank you to all BRWC volunteers who supervised the completion of these projects!





# Education 🍏 Updates

## Externships for Veterinarians and Veterinary Students

In addition to the dozens of rehabilitation interns and volunteers we train each year, we also take on a number of veterinary students and even graduate veterinarians for externships! Meet two of these externs below.

### Dr. EB McKibben, VCA Emergency Animal Hospital and Referral Center, San Diego, CA



I am currently working as a small animal veterinarian in San Diego, CA and truly enjoyed the break in working with cats and dogs to work with some of my favorite species at

Blue Ridge Wildlife Center!

While I have worked with wildlife previously as a rehabilitator and veterinary student, I appreciated spending the time with new species, getting to see interesting cases, and being able to work with these species as a veterinarian. It was truly a joy to work with Dr. Jen Riley again (we had worked together at another wildlife hospital years ago) and witness the amazing work that she and her team do at BRWC. From the moment the animal comes through the door, it is given the highest quality care—triaged and treated immediately and necessary diagnostics such as x-rays or bloodwork done as soon as possible (often sooner than can be done on an emergency basis at cat and dog hospitals). From the staff to the volunteers to the Good Samaritans who help rescue and transport the wildlife, I am in awe of the efforts by everyone to ensure that the animals are given the best chance at release.

My long-term career goal is to work in the field of wildlife medicine and it has been amazing to see a center that gives

such quality patient care with such a limited staff and budget and has volunteers who work such long and hard hours. My experience was inspiring and definitely something that I will take with me to wherever I end up!

### Emily Woodward, Virginia-Maryland College of Veterinary Medicine, DVM Candidate 2021



Caring for wildlife is a component frequently omitted from veterinary education since it is considered a more “specialized” field. However, general veter-

inary practitioners are often presented with wildlife cases by concerned citizens who want to help. My time at Blue Ridge Wildlife Center allowed me to glimpse into the life of a wildlife veterinarian, but also helped me learn how I can incorporate care for wildlife into any path of veterinary medicine I decide to take.

During my externship at the Center I learned how to handle, care for, and treat a variety of animals from turtles to raptors to skunks. Dr. Riley taught me how to properly examine each animal, how to anesthetize a variety of species, and how to select appropriate medications and dosages for each patient. By the end of the three weeks, I felt comfortable working with a variety of species, and I was able to begin to develop treatment protocols for new patients. In addition to clinical skills, I gained an understanding of the legal regulations that govern many aspects of what a wildlife veterinarian can and cannot do.

I will encourage as many fellow veterinary students as I can to visit BRWC.

Thanks to Dr. Riley’s impressive knowledge of the dietary, behavioral, and medical needs of each species, as well as the dedication of staff and volunteers, each animal at the wildlife center receives exceptional care. It was inspiring to see the level of commitment that goes into making this place a success. Everyone was always working hard, whether they were preparing meals for animals, cleaning enclosures, planning behavioral enrichment, coordinating releases, or educating the community. I was lucky to have the opportunity to work with so many amazing people and deserving animals.

For more information on our rehabilitation, education, and veterinary internship programs, please go to our website: <https://www.blueridgewildlifectr.org/content/internship-opportunities>.

We are only able to provide this free training to interns and externs when they have housing. For the large percentage that are not local, we rely on volunteers from the community to provide housing. We would like to thank all of the amazing volunteers who have provided housing for these interns in the past. If you have a spare room or cottage available and would be willing to house some of our interns throughout the year, please contact us at [info@blueridgewildlifectr.org](mailto:info@blueridgewildlifectr.org). ■

BRWC is dependent on your donations to help us care for so many patients. The Center does not receive state or federal funding for wildlife rehabilitation. We are so thankful to those who have generously made it possible for us to help with so many animal emergencies!

# Annual Gala – All Creatures GREAT and Small

Our 2019 Annual Gala was a huge success. Over 240 people attended the event, hosted by Beatrice and Adie von Gontard at Oxbow Farm, with Buhl Electric Company being the lead sponsor. This year the theme was All Creatures GREAT and Small, and focused on how every animal we care for, whether it be a Bald Eagle or White-footed Mouse, is important in the ecosystem.

Our Wildlife Ambassadors, including our Red-tailed Hawk, Briar, our Eastern Screech Owl, Dopey, an Eastern Box Turtle, Quasi, and Vega, a Turkey Vulture, were present. There were carriage rides from the resident Clydesdales that took guests across the beautiful rolling hills of Oxbow Farm as the sun set, and small farm animals present for hands-on interaction with guests.

As dusk approached, dinner was served, as the talented Gary Jay Power Duo



Adie and Beatrice von Gontard.

played country and americana songs. After dinner, our live auction began, offering amazing experiences, such as a Golden Eagle Flight Demonstration with renowned falconer Liam McGranaghan, a four-person VIP experience to a Redskins Game, an exploratory bird walk at Oxbow Farm, and several others. Five new indoor ambassador enclosures for our turtles, Southern Flying Squirrels, and two snakes



Laura and Liam McGranaghan with Beatrice.

were funded. Bids were flying as people generously pledged to support the Center's mission to care for native wildlife. Even the table centerpieces, bird houses handcrafted by the Center's very own Ike Eisenhauer, were sold, going home as a reminder of the great cause funded that evening.

Thank you to our volunteers, staff, and board members who helped make this event possible. ■



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**Thank you for your support!**



## Buhl Electric Co.



BRWC is grateful for our Lead Sponsor, Buhl Electric Company. John Buhl, Jr., born and raised in Virginia, has been working in the family business since he was a teenager. Having grown up in northern Virginia, he has seen a lot of growth and feels one of the challenges the region faces is people living in unison with our native wildlife. Given his lifelong interest in wildlife, he is pleased to support an organization that assists native wildlife in need and educates the community on human-wildlife conflicts.





From the top: (1) Heather Shank-Givens with Vega, the Turkey Vulture; (2) (l to r) James and Audrey Hasle, Irina Khanin, and Shyama and Scott Rosenfeld; (3) (l to r) Greg Pellegrino, Jessica Rich, Cara Masullo, Kristiane Pellegrino, Tom Gorman; (4) (l to r) Jason Paterniti, Barbara Ferrari, Cleo Gewirz; (5) (l to r) Judith Ayres Burke, Zohar and Lisa Ben-Dov; (6) Sandra Guarriello and Wally Brewer; (7) Music by the Gary Jay Power Duo; (8) Drs. Margit Royal and Jerry Wolford; (9) M. Tyson Gilpin, Jr and Judy Landes; (10) Beaty von Gontard, Derrius Guice, and Adie von Gontard IV; (11) Russ McKelway; (12) (l to r) John Buhl, Autumn Ambrose, Mike and Wendy Smith, and Stephanie and Tim Bates; (13) Hetty Abeles and Lionel Chisholm; (14) (l to r) Kyle Ewing, Matt Sheedy, and Mike Ewing.



Gala photos by Gary Sousa, sousasportpics.com



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**BRWC HOTLINE:** 540.837.9000 | [www.blueridgewildlifectr.org](http://www.blueridgewildlifectr.org) | [info@blueridgewildlifectr.org](mailto:info@blueridgewildlifectr.org)

# Giving Tuesday

December 3, 2019

Please join us on Giving Tuesday to **#GiveAChance** to wildlife in need! Donations made on that day, matched by private donors until matching funds are exhausted, will go directly to the care of our wildlife patients. Funds raised will help us purchase medications, diets/species-specific formulas, surgery supplies, and other items essential to the highest quality care and the best chance of returning to the wild.

Please donate through Facebook or our website on Tuesday, December 3rd, to **#GiveAChance** to our sick or injured wild neighbors. If you'd prefer, send a check to our physical address, noting **#GiveAChance** in the memo! Mark your calendar now and follow our Facebook page to learn how your donation can save lives.

TAIL END



Photo by Dr. Jen Riley.