

The Ridgeline

NEWSLETTER OF THE BLUE RIDGE WILDLIFE CENTER

ISSUE 50

**How Protecting Wildlife
Health Protects People**

*Orphaned Mallards
raised at the Center.*

How Our Actions Affect Wildlife



Many of our patients are victims of good intentions.

Birds who contract a disease from bird feeders put up by people who love watching birds in their backyard; nests of baby bunnies who are kidnapped because people were worried their mom had abandoned them; an injured raccoon that someone found and picked up without gloves to bring it to the Center—all of these things are done by people who love animals and are just trying to help.

What we have found is that most people don't know that it is essential to clean bird feeders regularly, or that a nest of bunnies is completely safe on its own, or that caring for a raccoon with bare hands can result in it being euthanized for rabies testing.

Understanding how our actions, even when they are done with the best intentions, can affect wildlife is so important to the health of our environment and ourselves. That is why education is vital to our mission at Blue Ridge Wildlife Center.

Without educating people on how to safely protect and interact with wildlife, we are only treating the problem, not preventing it.

We also rely on you to help spread the word! One of the best ways you can support wildlife is to share what you have learned with your family and friends. The more information we share, the healthier our entire community will be!

With gratitude,

Annie Bradfield

Become a Member. Help Native Wildlife. Online!

As a non-profit with no state or federal funding, Blue Ridge Wildlife Center members are what make our work possible.

Become a Member

With your donation, you will play a critical role in protecting our native wildlife. In addition, you'll receive member benefits, including:

- A one-year subscription to *The Ridgeline*, BRWC's quarterly newsletter;
- BRWC branded membership gift—received when you join and with each annual renewal;
- Discounts on BRWC Education programs and merchandise; and
- Free admission to BRWC's online Education Series.

blueridgewildlifectr.org Minimum amount to receive membership benefits: \$40 one-time gift or \$5/month recurring gift.



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—Lennep Foundation's property on Island Farm Lane.

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

FOLLOW US



Newsletter designed by Dara Bailey Design

Working Together to Protect One Health

By Dr. Jen Riley

AS a permitted rehabilitation facility, we must follow the permit conditions set forth by our state wildlife agency, the Virginia Department of Wildlife Resources (DWR). The mission of the DWR is to conserve, connect, and protect Virginia's wildlife populations. The intent of the permit conditions is to preserve the health of wild populations and the humans with which they interact. Permit conditions are developed with input from veterinarians, wildlife biologists, public health officials, and species specialists to ensure best practices for all involved. The general public, and even those of us in the field, may not agree with every permit condition upon first read, but it is important that we follow these rules and have an understanding and appreciation of why they were created.

Most importantly, we must understand that wildlife rehabilitation is a constantly evolving practice, therefore permit conditions change. If you are not working in this field, you will not receive updates on these changes, so we always recommend reaching out to DWR or a permitted wildlife rehabilitator so that you have the most up to date information BEFORE trying to rescue a wild animal.

Some of the recent permit changes have **One Health** implications and it is important that you understand why and how such regulations protect our health, the health of wildlife, and the health of our shared environment.

The most recent updates (May 2021) reflect some of the concerning diseases we are seeing in wildlife and the steps being taken to protect wildlife and humans.

COVID-19

While all staff and volunteers are vaccinated, we still adhere to the guidelines set forth by DWR. This means that all



staff and volunteers working with mammals wear masks/gloves and handle our personal protective equipment properly. If any vaccinated animal care staff/volunteer were to test positive for COVID-19 or be exposed to another person who tests positive, that individual would not be allowed to work directly or indirectly with any mammalian wildlife until their quarantine period has ended. Luckily, we have not had any positive tests among staff/volunteers nor exposures to date.

Early in the pandemic, DWR discontinued the rehabilitation of bats in our states while research regarding bats and COVID-19 was conducted. We were fortunate to be part of the Coronavirus Epidemiological Research and Surveillance project through Tufts Cummings School of Veterinary Medicine. This project investigated the ability of our native bats to contract COVID-19 by testing every bat admitted. None of our samples came back positive and since that time, other studies have been completed in which Big Brown Bats (our most frequently treated species) were experimentally inoculated with SARS-CoV-2 and no infection was produced in any of the bats.¹

Given these results, DWR has allowed rehabilitation of bats to begin again

with the stipulation that all COVID-19 protocols continue to be followed and all bats (except for Big Brown Bats) are tested prior to release.



This Eastern Red Bat was released back at her found location after her COVID test came back negative!

Wild animals do not survive well if relocated, which is why our state makes it illegal to relocate any wildlife.

Foxes

In late 2020, *Echinococcus multilocularis*, a parasite of wild canids that is capable of infecting humans, was detected in a red fox hit by a car in Clarke County. In early 2021, a red fox from Loudoun County was confirmed to be infected. As a result of the confirmed presence of this parasite in the wild fox populations of northwestern Virginia, DWR created an *Echinococcus multilocularis* zone and made changes regarding foxes found and treated in that zone. Human echinococcosis is a zoonotic disease, caused by the ingestion of tapeworm eggs for which canids, such as foxes, are the definitive host. This disease is also known as “hydatid disease” due to the hydatid cysts that develop in the person’s organs (fluid-filled structures that contain

tapeworm larvae). In humans, this disease can be fatal if left untreated, however, it is usually treated with chemotherapy, surgery, or a procedure in which cysts are aspirated through the skin and injected with chemicals to reduce development. In some cases, dewormer medications can be given as part of the treatment protocol.

Part of being a rehabilitator is learning about the various zoonotic diseases in your area and how you can protect yourself. This is one reason, in addition to the animal’s welfare and safety, that the general public is not legally allowed to rehabilitate wildlife. Our staff and volunteers take special precautions and use specific cleaning protocols that take into account the various diseases that our patients could be carrying asymptotically.

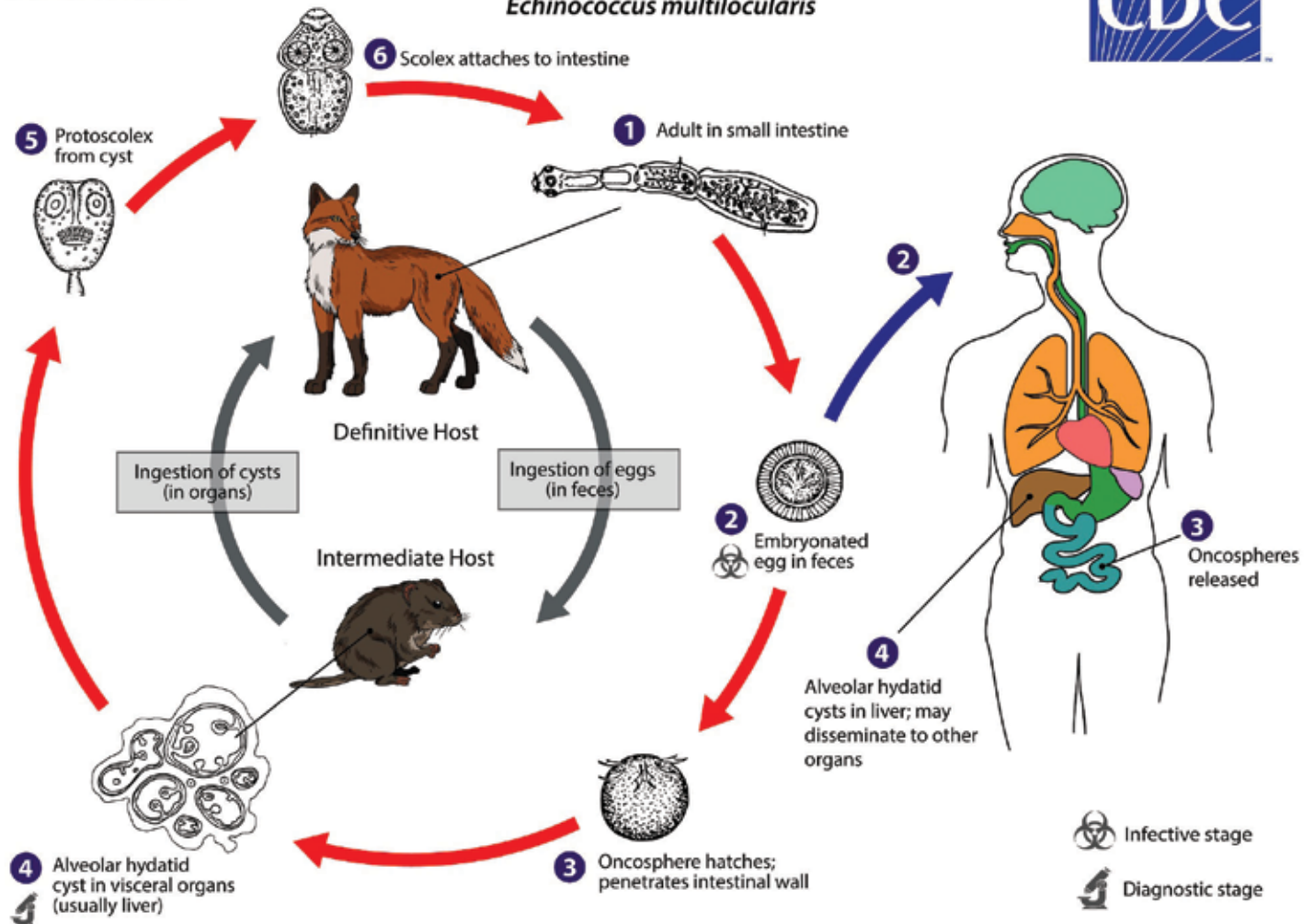


This orphaned Red Fox juvenile has been with us since March! We expect that this individual will be released later this summer with its siblings.

This new containment zone, which is based off counties where the tapeworm has been found and a buffer of surrounding counties, includes Clarke, Fairfax, Fauquier, Frederick, Loudoun, Prince William, and Warren counties. Foxes that come into these counties for rehabilitation must be released in the county of



Alveolar Echinococcosis
Echinococcus multilocularis



rehabilitation. For our Clarke County based hospital, that means any fox originating from outside of Clarke County can never go home to its family or home range where it can find food or shelter. **Wild animals do not survive well if relocated, which is why our state makes it illegal to relocate any wildlife.** This is one reason why it is so important to call rehabilitators before simply bringing animals in for care. Some situations are not dire enough to warrant that animal being permanently removed from their home.

White-tailed Deer

Chronic Wasting Disease (CWD), a prion disease that affects cervids (deer, elk, moose, etc.), has been detected in ten Virginia counties. This disease kills deer slowly—it often takes more than a year for infected deer to show signs, which include weight loss, incoordination, and other neurological issues. While fawns do not get sick or even test positive for the disease until they are over eight months old (even if they are infected), they are potentially exposed to CWD at an early age if the mother is infected. Because fawns originating from an infected population are a risk for disease spread as they get older, rehabilitation of deer is NOT permitted in counties included in a Disease Management Area, which include the following: Clarke, Frederick, Shenandoah, Warren, Culpeper, Fauquier, Loudoun, Madison, Orange, Page, Rappahannock, Floyd, Montgomery, and Pulaski counties. Deer from these counties are not allowed to be rehabilitated and deer (even



This healthy fawn is resting normally and does not need assistance.

from other counties) cannot be rehabilitated by anyone in the disease management area counties. Adult deer are not permitted to be rehabilitated anywhere in the state.

Although we cannot rehabilitate deer at our facility, we provide advice about deer regularly! Please call with any concerns. Due to risks of COVID-19, rabies, cryptosporidiosis, and other zoonotic diseases, we do not recommend handling deer (or any wildlife) directly.

Luckily, the overwhelming majority of deer-related phone calls we receive are about animals that do not actually need help! Remember that does leave their fawns alone during the day, often curled up next to your house or flower garden, and only come back to feed at dawn/dusk. Not seeing mom is not a cause for concern. If you find a fawn that has fractures, is covered in flies or fly eggs, is lying laterally with its legs straight out, or is crying incessantly for hours, please call so that we can help you better assess the situation.

Eastern Cottontails

Permit conditions regarding the rehabilitation of cottontails have recently been updated due to the risk of Rabbit Hemorrhagic Disease Virus serotype 2 (RHDV2). RHDV2 is a fatal disease of domestic and wild rabbits that causes sudden death, internal bleeding, and occasionally other signs like loss of appetite, respiratory issues, or neurological signs. This is NOT a zoonotic virus, but it is certainly of concern to humans that own domestic rabbits. The conditions now prohibit the rehabilitation



This healthy Eastern Cottontail was released after being treated for wounds from a cat attack.

of cottontails on the same property where domestic rabbits are housed. Staff/volunteers that have direct contact with cottontails in rehabilitation setting must change clothes, shower, and disinfect all carriers and supplies before returning home to care for pet domestic rabbits. If you have found a wild cottontail and have pet rabbits at home, please call ahead before rescuing the cottontail and follow appropriate precautions. Never house a wild cottontail near or with domestic rabbits (there are many other diseases of concern that could be spread this way in addition to RHDV2). ■

1. Hall, JS et al. Experimental challenge of a North American bat species, big brown bat (*Eptesicus fuscus*), with SARS-CoV-2. 2020. DOI: 10.1111/tbed.13949.

Avian Mortality Event



In late May, our hospital and many others in the D.C./Maryland/Northern Virginia area, began seeing an influx of fledglings with eye swelling, ocular discharge, and neurological signs. These were primarily Blue Jays, Common Grackles, and European Starlings and they appeared to be dying rapidly once signs develop. Since late May, this disease has been seen in additional species and in additional states including West Virginia, Kentucky, Delaware, New Jersey, Pennsylvania, Ohio, and Indiana. Many rehabilitators and state agencies are working with national laboratories to determine what is causing this mortality event, but no diagnosis has been confirmed at this time. Many bacterial pathogens and viruses have already been ruled out, but additional testing (including toxicology) is ongoing.

At this time, state wildlife agencies are asking that you take down feeders and bird baths, which can spread a variety of diseases. Avoid handling birds and keep pets away from deceased birds and other wildlife. At this time, there have been no reports of the disease in humans or domestic animals. We will continue to keep you updated as we learn more!

Rehab + Corner

May 2021—a Record Setting Month

The summer is always our busiest time—normally we average over 20 patients per day. This May was no exception, setting a record in number of animals taken in during a single month—632 animals! We hit the ground running on May 1st, releasing over 20 reptiles and amphibians that we had been overwintering while also taking in an incredible 37 animals in a single day. Overall, we released 139 patients during the month of May and over 200 in June!



This Virginia Opossum was successfully released with her joeys clinging to her after recovering from a dog attack.

Bats



Permit updates have lifted the temporary ban on bat rehabilitation in our state. With the change in state regulations, we have now been allowed again to take in Virginia bats!

Even though we can now rehabilitate bats again, there are still some restrictions in place. **Big Brown Bats** do not have to be tested for COVID-19 before being released. All other bat species, like the **Eastern Red Bats** photographed here, are required to be tested and can only be released after a negative test result.

American Mink

Many people are unaware that we have mink here in Virginia! While common, these mustelids are secretive, so they aren't often seen by people. This baby American Mink was found alone in the finder's yard and reuniting attempts were not successful. Thankfully, this baby had no injuries or other issues, and after a few weeks of care, he opened his eyes! Since we always try to keep baby wildlife with conspecifics, we transferred this baby to another permitted rehabilitator (Evelyn's Wildlife Refuge), as they had another American Mink about the same age. We're thankful Virginia has a wide network of qualified and experienced wildlife rehabilitators who work together to give patients their best chance at success!



Turtles

Every summer we see an influx of turtle patients. As the weather warms and we see more rain in the forecast, turtles of all species are on the move, looking for mates, areas to lay eggs, and new food and water sources. This puts them at great risk of being hit by cars, mowed over by lawn mowers, attacked by dogs, or exposed to toxins or diseases that can make them sick. We have already admitted over 130 number of turtles so far!

Fowler's Toad



This Fowler's Toad made an amazing recovery. It was brought to us with a broken right leg and a laceration on the same leg after being stepped on at Shenandoah River State Park. Our veterinarian, Dr. Riley, was able to suture the laceration and stabilize the fractured leg to allow it to heal. After surgery and multiple weeks of recovery, the leg had healed perfectly and the sutures were removed. This toad was happily returned back where it was found at the nearby state park!

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! Please help us help them by making a donation online.



Did you know?

Virginia's Department of Wildlife Resources recently made it unlawful to possess any reptile or amphibian of greatest conservation need. That means that it is now not legal to keep any box turtle, snapping turtle, or many other species as a pet. If you currently have one of these animals in your care, be sure to register it with DWR (see their website for details). dwr.virginia.gov

Northern Mole Kingsnake



A first of its species for us, this Northern Mole Kingsnake was brought in after it was found tangled in garden netting. Thankfully, the finder got it contained and brought it to us quickly to remove the rest of the netting and assess it for injuries. With no serious lacerations or issues other than some minor dehydration, this snake spent a few days with us recovering before being released back at its exact found location! As always, if you find a snake stuck in netting, please get it to a rehabilitator ASAP so we can treat any wounds, as well as dehydration or emaciation. Garden netting is our most common cause of snake admissions. Please secure netting in a bin or bag and use alternatives to protect wildlife!

Horned Lark



This Horned Lark, another first species for our Center, came to us after it was found alone on a runway at the airport in Winchester, VA. This baby initially had mild neurologic issues that prevented it from perching normally, but this quickly resolved in care. Horned Larks are ground nesting birds. Though this one needed care, it is important to note that it is not unusual to find these birds on the ground even as nestlings. This is why we ask that you call when you find an animal you think may be in need – it may not need our assistance after all! This Horned Lark grew up quickly and was released back at its found location so that it would be able to potentially rejoin its family! ■

Keeping Cats and Wildlife Safe

In June 2021, we took in a total of 558 animals. Of those 558 animals, 94 were brought to us due to cat attacks. Of those 94 individuals, only 26 survived their encounters with these non-native domestic animals. Domestic cats killing wildlife is not “the circle of life”. It is humans allowing domestic animals to interfere with the circle of life.

Cats are not at fault in this situation—they are victims too. Hunting comes naturally to them and they cannot be blamed for their instincts, but when humans allow cats to roam freely, humans are causing wildlife deaths, spreading diseases, and putting their cat’s safety and even life in harms way.

Though feral cats are estimated to cause two thirds of cat-related wildlife deaths, the patients we see are almost always from owned cats when they bring wild animals to their owners, or when the finder interrupts a neighbor's owned cat with an animal.

These cats have humans that are responsible for their care and their actions.

In addition to the direct killing of



This photo shows the patients at our hospital that did not survive confirmed cat attacks in the month of June.

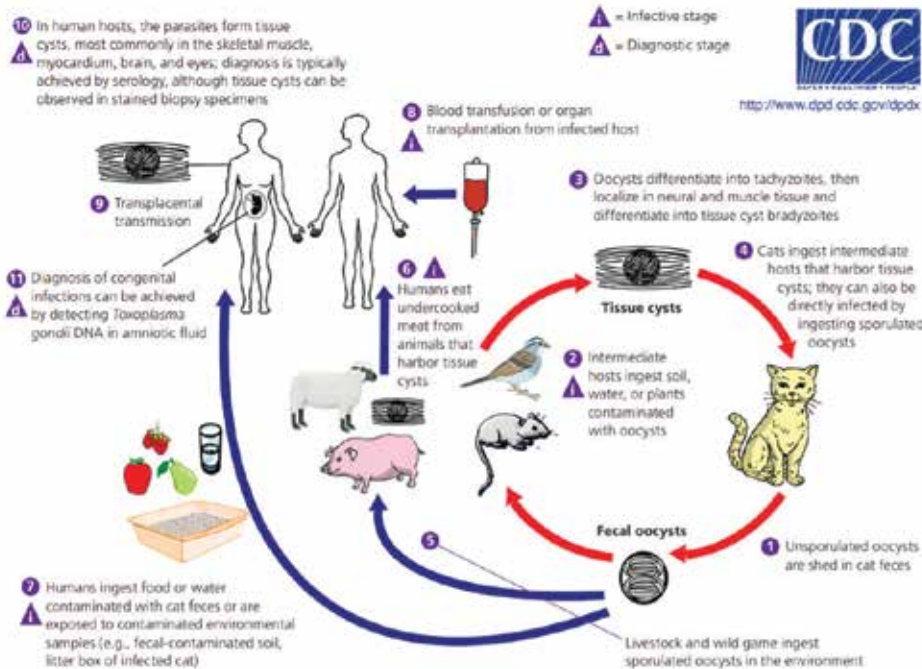


Thank you to Maureen Cohen Harrington for sharing this photo of the beautiful outdoor enclosure she built for her cat, Cheeks! In addition to leash walks and adequate indoor enrichment, outdoor enclosures and catios can be a great source of enrichment for our pets.

wildlife by predation, feline diseases are spread to wildlife and potentially the cat's owners. Diseases like *Toxoplasmosis* kill many wild and domestic animals and are responsible for human deaths each year in addition to billions of dollars of medical costs in our country. Though the risks of pregnant women cleaning litter boxes are often highlighted due to severe effects on the developing fetus, this parasite is a risk to anyone whose environment/garden etc. is used as an outdoor litter box by their own cat or any cat. *Toxoplasmosis* is often transmitted through cat feces on contaminated food or even tissues cysts from intermediate hosts (the meat humans eat). Regardless of the route of infection, cats are the ONLY definitive host of this parasite. That means that they are required for this parasites existence. *Bartonellosis*, or “cat scratch disease” is another zoonotic concern. This bacterial infection, which spreads via scratches from cats to humans, causes fever and enlarged lymph nodes and can also cause associated inflammatory diseases. Rabies, gastrointestinal parasites, ringworm, and other zoonotic diseases can be prevented with proper veterinary care and keeping pet cats indoors.

Please treat your feline companions with the same respect you would give to your dog. Do not expose them to the many dangers of unsupervised outdoor living. Take accountability for their actions and the human health consequences. Efforts to keep cats indoors not only help to save wildlife, but also help to keep your family (pets included) safe and healthy. ■

Cut out and fold the brochure on the next page. Share with you family, friends, or neighbors.



Toxoplasma infects more than 40 million men, women, and children in the U.S., but few show symptoms due to a healthy immune system. Fetuses and newborns whose mothers are infected with *Toxoplasma* during or just prior to pregnancy can suffer devastating effects as can individuals with immune compromising conditions.

WAYS TO HELP YOUR COMMUNITY

- Support local rescue organizations and shelters
- Microchip your pet
- Register/license your pet with your county
- Support leash laws for both cats and dogs
- Leash your pet and supervise while outside; help prevent them from roaming
- Stay up to date on vaccinations
- Spay and neuter your pets to prevent overpopulation (can also lower risk of cancer)
- Refrain from feeding feral cats unless committed to finding them a forever home.

Spay Neuter Vaccinate Adopt!



MORE RESOURCES



Check out these websites for ideas on how to keep your indoor cat happy!

www.catiospaces.com

www.catit.com

www.foodpuzzlesforcats.com

www.indoorpet.osu.edu/cats

www.petclassics.com/catenclosures



Blue Ridge Wildlife Center

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BlueRidgeWildlifeCtr.org

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Cats and Wildlife

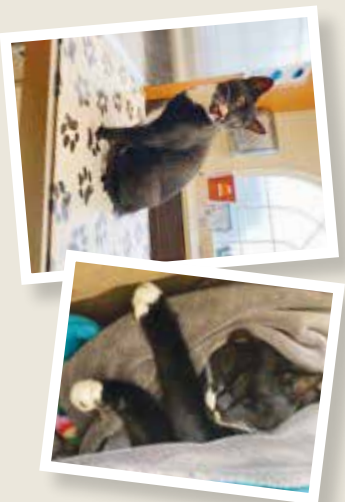


How cats and
their humans can live
in harmony with
our native wildlife.



HEALTH CONCERNS

Keeping You and Your Cat Safe



Outdoor cats are at greater risk for trauma and disease:

- Vehicle collisions
- Intentional cruelty by humans—many shelters see stabbings, shootings, poisonings, animals set on fire)
- Predator attacks (e.g. foxes, coyotes, raccoons) or other cats causing wounds, infection, even death.



Cat found on side of road, presumed hit by car.

Feral and outdoor cats can contribute to the spread of zoonotic diseases and can be affected by these diseases themselves.

- Rabies, toxoplasmosis, cat scratch disease, ringworm, intestinal parasites
- Fleas, ticks (carriers of Lyme, hantavirus, anaplasma), and mosquitoes (carriers of heartworm disease)
- Internal parasites (e.g. roundworms, hookworms, tapeworms, and whipworms) which can be contracted from ingesting prey items like small mammals and birds.

THREATS TO WILDLIFE

- Cats are NOT native wildlife, but domesticated animals, just like dogs; they have not evolved with our native wildlife and are damaging to our ecosystem.
- About 15% of our patients admitted annually to our hospital are due to cat attacks
- Studies have shown cats are responsible for killing billions—yes billions—of birds, mammals, amphibians, and reptiles every year in the United States.



Juvenile mourning dove attached by a cat

KEEP YOUR CAT HAPPY INDOORS ...and supervised outdoors

LEASH TRAIN



Pouf being leash-trained after she was missing for two months in the great outdoors.

CATIO

Utilize a screened-in porch or create a homemade catio!



PROVIDE TOYS THAT ENCOURAGE NATURAL BEHAVIORS

Climbing, scratching, hunting and hiding are healthy activities for your indoor cat. Provide a grass lounge or garden for grazing.



Indoor cat lawn, Google Images.



Tom "hunting" a bird TOY.

CHANGE UP YOUR CAT'S ENRICHMENT

Provide boxes for exploring and switch out toys to prevent boredom.



For more information, visit www.CDC.gov, and talk to your local veterinarian!



Summer Interns

This summer we've had the pleasure of training seven rehabilitation interns, six veterinary externs, and three veterinary technician interns. With the pandemic still ongoing, we were limited in our intern numbers this year due to the challenge of housing interns safely. To help keep our staff and patients safe, currently all of our volunteers, staff, and interns are vaccinated against Covid-19.

Rehab Intern, Daisy Lockett



Daisy is one of our part-time Wildlife Rehabilitation Interns, who primarily focus on the handling, feeding, and overall husbandry of our wildlife patients. She is a rising Sophomore attending the College of Natural Resources at Virginia Tech. While she hopes to become an Equine Vet, she's happy doing anything with animals and being outdoors! Daisy enjoys riding horses, and has a particular soft-spot for our avian patients!

Vet Tech Intern, Eliana Abbott



Eliana is a student in the veterinary nursing program at Purdue University College of Veterinary Medicine and she will be with us through late July. While at BRWC, Eliana is learning about wildlife species, restraint and handling for procedures, phlebotomy, radiology, anesthesiology, and more. Veterinary technicians are licensed professionals and do so much to ensure the health and safety of our wildlife!

Veterinary Intern, Kenna Frierson



Kenna is a rising third year veterinary student at University of Georgia College of Veterinary Medicine. Kenna came to us well-trained in wildlife after having completed internships at other wildlife hospitals—but there is always more to learn! In addition to learning about wildlife medicine and surgery, Kenna is getting involved with research at the Center. She has taken responsibility for collecting and logging our Red-tailed Hawk samples for a genetics study we are currently participating in with the University of Minnesota - Duluth. ■

Supporter Highlight: Prudy Squire



There are many ways to help us here at the Center, and one of the more unknown methods of support comes from supporting our non-local interns who require housing! Prudy has been an invaluable resource in allowing veterinary, vet tech, and rehab students to stay in a cabin she owns near to the Center, allowing us to provide this learning opportunity to more students. Thanks to her support, we've been able to teach over a dozen additional students who are not local to our area, and who otherwise would not have had access to this opportunity.

If you'd like to help us by housing an intern(s), please e-mail us at info@blueridgewildlifectr.org for more information!

Wildlife Discovery

Camp!



BRWC is very excited to have resumed our Wildlife Discovery Camp this summer! Children ages 6-14 have been spending summer days learning about the mechanics of flight, animal adaptations, and more; playing games and making crafts; and meeting our Wildlife Ambassadors face-to-face. After the disappointment of needing to cancel last summer's scheduled camps for safety reasons, BRWC made sure to take



precautions to make this summer a success. Fully-vaccinated staff and volunteers have been leading the activities and daily nature walks—where the campers have been delighted to see Eastern Ratsnakes, snails, Eastern Box Turtles, and Turkey Vultures in their natural habitat.

FOLLOW US



BRWC HOTLINE: 540.837.9000 | www.blueridgewildlifectr.org | info@blueridgewildlifectr.org

Save the Date!

Sat., Sept. 11, 2021 | 11:00 a.m. - 4:00 p.m.

Clarke County Fairgrounds | Berryville, Virginia

Join us for our **Second Annual WildFest**—a public, family-friendly event focused on providing information about wildlife and how the public can live in harmony with our wild neighbors. WildFest is a celebration of all things wild—from the work that BRWC does to other ways that the public can help wildlife and the environment.

The day will be packed with fun for the whole family with games and activities for all ages, food trucks, a raffle, face-painting, and appearances by BRWC's **Wildlife Ambassadors!**



TAIL END