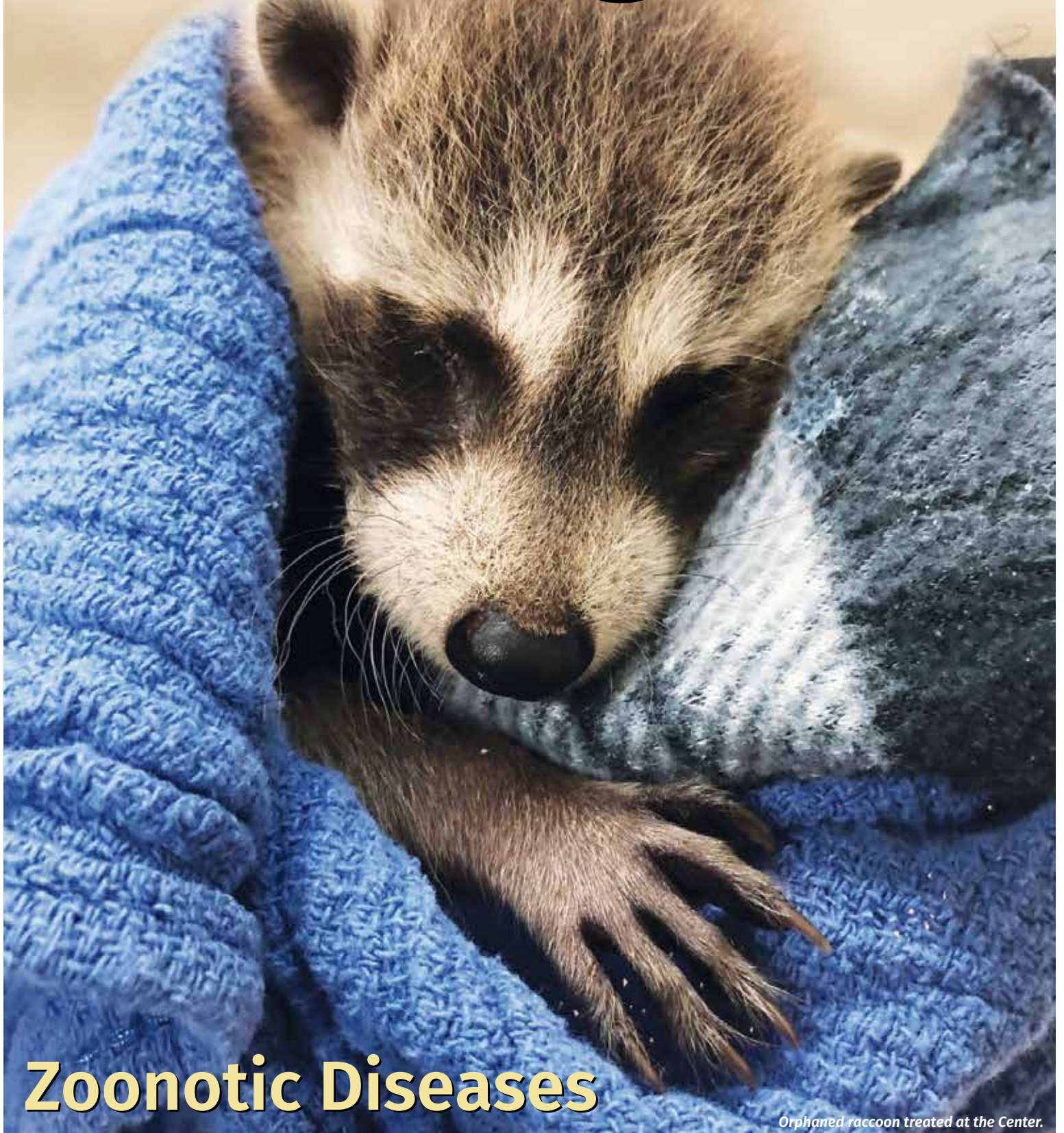


The Ridgeline

NEWSLETTER OF THE BLUE RIDGE WILDLIFE CENTER

ISSUE 42



Zoonotic Diseases

Orphaned raccoon treated at the Center.

Protect our Native Snakes | Rehab Corner | Peregrine Falcon Release | Glue Traps Do's and Don'ts | Education Updates

Concern for the Health of Animals and People



Another busy summer of wildlife babies is nearing an end. Most birds have raised their young and the fledglings are on the wing. The larger mammals have had their single litter for the year and are teaching their babies the necessary skills for winter. Some animals, such as squirrels and opossums, are working on round two, and bunnies will continue through the fall!

As you will see, this issue is focused on the health and well-being of wild animals AND people. If you have ever called us about finding a wild animal or have brought a patient to us, you know that we emphasize the importance of learning about any human-wildlife interactions that have occurred. We do this solely because we are aware of the potential health risks, from mild nausea to death, that wildlife interactions could pose to humans.

On a more positive and infectious fun note, we are busy planning our fall gala to be held at Oxbow Farm on September 28. Our wildlife ambassadors will be present, as will a few Budweiser Clydesdales! We will have a small number of unique, select items for our live auction. The evening is sure to be a fun one! If you are interested in joining us, please contact the Center (540-837-9000) to request an invitation.

Sincerely,



Hillary Russell Davidson



Cover photo by Dr. Jen Riley.



2019  GALA

All Creatures GREAT and Small

• A GALA TO BENEFIT OUR NATIVE WILDLIFE •



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The Ridgeline

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Blue Ridge Wildlife Center
106 Island Farm Lane | Boyce, Virginia 22620

Wildlife Hotline: 540-837-9000
E-mail: info@blueridgewildlifectr.org
Web: www.blueridgewildlifectr.org

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Hillary Russell Davidson
Executive Director
hillary@blueridgewildlifectr.org

Jennifer Riley, DVM
Director of Veterinary Services
drjen@blueridgewildlifectr.org

Jessica Andersen
Rehabilitation Program Manager
jessica@blueridgewildlifectr.org

Jennifer Burghoffer
Education Manager
jennifer@blueridgewildlifectr.org

Keith Davis
Operations Coordinator
keith@blueridgewildlifectr.org

Cara Masullo, LVT
Licensed Veterinary Technician
cara@blueridgewildlifectr.org

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.

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Newsletter designed by Dara Bailey Design

Zoonotic Diseases in Humans and Wildlife

By Jennifer Riley, DVM

The role of veterinarians and veterinary hospitals in public health is often underappreciated. Veterinarians are not just here to keep pets, livestock, and wildlife healthy—we are here to keep HUMANS healthy too! *One Health* is an integrative approach of multiple disciplines working together to achieve optimal health for people, animals, and the environment. Just about everything that happens in a wildlife veterinary hospital like ours involves a One Health approach. From treating individual patients, to collecting data, to teaching the next generation of wildlife health professionals, we are gaining and spreading knowledge that will ultimately help all of us. Zoonotic diseases are an excellent example of the degree to which human and animal health can overlap and these diseases are one area where wildlife hospitals can have a huge impact.

Zoonotic diseases are those diseases that can spread between animals and humans and are extremely common worldwide. It is estimated that six out of 10 human diseases are spread from animals. Three of four emerging infectious diseases are thought to be spread from animals. Each year, tens of thousands of Americans will become ill from a zoonotic disease.¹ Some will even die as a result. Wildlife hospitals such as ours deal with zoonotic diseases daily and it is our responsibility to inform the public about these important diseases.

Rabies

Rabies is a viral disease that can be transmitted to humans by wildlife or domestic pets through bite wounds, scratches, or any exposure of saliva to wounds or mucous membranes. Though it is most commonly found in raccoons, skunks, foxes, bats, and domestic cats, it can be found in ANY mammal. Large rodents (groundhogs and beavers) and



Skunks are one of many species in our area that are considered high risk for transmitting the rabies virus. Photo by Dr. Jen Riley.

all wild carnivores are considered high risk, while small rodents and cottontails are extremely low risk. Opossums are less likely to become infected with rabies than some other mammals likely due to their low body temperature, however, they can absolutely contract and spread the virus.

In the United States, bats are the primary source of human fatalities due to rabies. This may be partially because people are often unaware that they have been bitten by a bat (for example, if a bat gets into their home while they are sleeping) and partially due to the fact that people do not notify their healthcare providers to get post-exposure prophylaxis when they are exposed. Rabies is fatal in humans once signs appear, however, it is 100% preventable with timely post-exposure prophylaxis.

Cats are another common source of exposure as many people assume cats are vaccinated. Dogs were once the primary cause of rabies deaths in Americans, but this has become a much lower risk due to the high rates of canine vaccination. Though very few dogs contract rabies each year, it is important to be cautious around any domestic animal if you do not know its vaccination history.

Mammals are only tested for rabies (which requires euthanasia) at the direction of the health department and specimens are analyzed by a state laboratory. The health department does not request rabies tests due to any specific signs in the animal, but rather due to any human or domestic animal exposure. Since an animal can be infected with rabies and display no signs of the disease, any human exposure is considered a risk of rabies transmission. The health department does not limit the definition of “exposure” to only a bite or scratch, but may also consider activities such as handling a mammal without gloves, feeding the animal, or caring for it for more than 48 hours as an exposure risk. The decision to test or not is made by public health professionals with the exposed human’s best interest in mind. Since the disease is fatal, if there is any chance a person may have been exposed, they will request the animal be tested.

Unfortunately, many healthy, wild babies are tested due to the public’s strong desire to nurture these babies. If you find a healthy baby in need, please DO NOT handle it or attempt to feed it. Not only can feeding wild babies cause severe health issues for them, it may also lead to that animal being tested for rabies for YOUR

Rabies is fatal in humans once signs appear, however, it is 100% preventable with timely post-exposure care.



This young fox kit was brought to the Center with a fractured leg when a barn was taken down. Photo by Dr. Jen Riley.

benefit. Help keep our wildlife safe by being hands-off rescuers! Call us or another permitted rehabilitator before rescuing any mammal.

To lower your own risk for contracting rabies, remember to leave wildlife alone!

Do not feed wildlife or allow unvaccinated domestic animals to share food dishes (and, by extension, saliva) with wildlife. This will prevent MANY diseases in addition to rabies. Be sure your pets are up to date on their vaccinations. If you are bitten or scratched by a wild mammal, clean the area well with soap and water, then report the bite to your healthcare provider or local health department immediately. If you find injured wildlife, please call the Center or a permitted rehabilitator for guidance so that your actions do not condemn the animal to testing for rabies.

Baylisascaris procyonis

Baylisascaris procyonis is a roundworm found in the intestinal tract of raccoons. It does not cause a problem for its host species (the raccoon), but it is often fatal in other animals and can be fatal in humans.

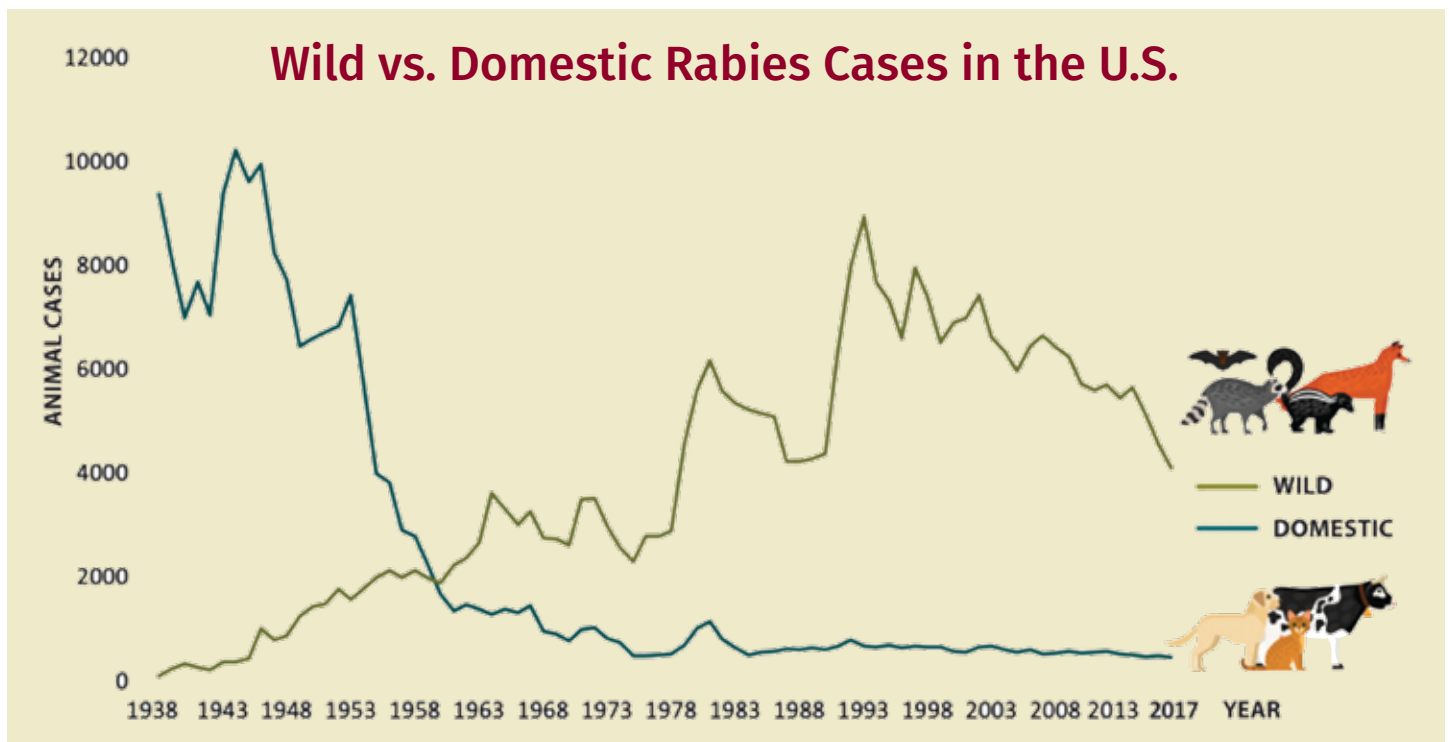
Infection in humans happens when people ingest water, soil, or other objects that have been exposed to raccoon feces. Since raccoons may use roofs, decks, hay lofts, playgrounds, and other areas as latrines, these areas (or areas below the run off) can be at a high risk for *Baylisas-*



Being bitten, scratched, or exposed to saliva from ANY mammal may be enough for the health department to decide that the animal must be tested. This is the case even if the animal has no signs of rabies. Keep these babies safe by keeping yourself safe! Never directly handle or attempt to feed wild babies. Photo by Dr. Jen Riley.

caris. Small children are one of the groups most commonly infected as they are more likely than others to put their hands or objects in their mouths.

Many cases of *Baylisascaris* in humans likely go undiagnosed. They may



As the graph illustrates, as people have become more diligent about vaccinating their pets and livestock, the incidence of rabies in our companion animals has dropped dramatically. As our population expands and we move into wild areas, the interactions between humans and wildlife make wildlife a greater threat for those who do not take proper precautions with wildlife. GRAPH SOURCE: U.S. National Rabies Surveillance System, <https://www.cdc.gov/vitalsigns/rabies/images/vs-rabies-infographic2.jpg>.

be asymptomatic or have vague signs that make diagnosis a challenge. Since humans are not the host species, larvae do not know what to do in the human body once the eggs hatch. As a result, they migrate through the body, often through tissues and organs, looking for a raccoon intestine where they can live happily. This migration of larva can cause organ damage, vision loss, or even neurologic signs depending on where the larvae travel. This parasite seems to have a preference for neural tissue and as a result, many symptomatic cases present with neurologic signs.

To help prevent this disease, be sure that you and your children avoid contact with raccoons and their feces. Wash hands well after playing outside. Deter raccoons from your yard by NOT feeding pets outdoors, keeping trash or food items well-contained, covering sandboxes which raccoons may use as latrines, closing off attic/garage access, and eliminating open water sources.

Echinococcus multilocularis

Echinococcus multilocularis is a tapeworm of foxes, coyotes, and occasionally domestic dogs that can cause serious medical issues and even death in humans. Though this is generally thought of as a parasite in the central United States, a case was recently reported in a domestic dog in Clarke County, Virginia—the same county



Red Fox recovering from mange. Photo by Dr. Jen Riley.

in which our Center is located!

When a human ingests the eggs of this parasite, they may develop cystic or alveolar echinococcosis. The growth of cysts in organs over time can cause pain, nausea, and vomiting. If the cysts rupture, the person can have anaphylactic reactions, possibly resulting in death. Alveolar echinococcosis is characterized by tumors, often in the liver, lungs, and brain, which can cause pain and general illness. The alveolar form specifically has a mortality rate as high as 50-75%.²

Close contact with foxes and coyotes is the main risk factor for this disease, so our staff and volunteers take extra precautions when handling these species. We are now working with local small animal hospitals and IDEXX Laboratories to test all fox patients for this parasite so that we can better assess the prevalence in our area and help keep people and animals safe!

Zoonotic Influenza

Influenza viruses are common in humans and animals. While humans tend to get Influenza B viruses, animals—including birds, pigs, whales, bats, dogs, and cats—often get Influenza A viruses. While it is uncommon for humans to get the “flu” directly from animals, human outbreaks caused by Avian Influenza A (AI) have been reported.

Birds can shed the AI virus in their saliva, mucous, and feces. If humans get these secretions into their eyes, nose, or mouth through unprotected contact, they could become ill. Though the spreading of these viruses between birds and humans is rare, it is important to know that influenza viruses adapt quickly, which is why vaccinations are developed for different strains of the virus each year. These viruses can gain the ability to spread easily between people and must be monitored as they are a threat to public health.

Though the risk of AI transmission to humans is currently low, we recommend that you avoid directly handling wild birds. Though the notion that touching baby birds will prevent parents from caring for them is a myth, there are reasons to avoid such interactions and to use proper protective equipment. There are certainly diseases you can get from birds and diseases that birds can get from you! Please avoid han-



Wild waterfowl and shorebirds are a primary reservoir for AI in wild birds, but wild raptors have also been found to be infected with this disease.

Photo by Dr. Jen Riley.

dling wild birds, sick poultry, or touching surfaces covered in bird feces with your bare hands. If you find a bird in need of assistance, call the Center for guidance!

Since there is far more information regarding zoonotic influenza than can be covered here, interested individuals should visit the CDC’s website for more information: <https://www.cdc.gov/flu/other/index.html>.

West Nile Virus

West Nile Virus (WNV) is the most common mosquito-borne disease in the United States, but most infected individuals don’t know they have it! Only about 20% of people with WNV show any symptoms. Those who do, typically have fever and headaches. Less than 1% of infected individuals show more severe signs, including encephalitis (brain inflammation) and meningitis (inflammation of the membranes around the brain and spinal cord). In cases of encephalitis or meningitis, coma, tremors, convulsions, vision loss, and paralysis are some of the possible results. Very few individuals die as a result of WNV infection, but long-term effects can be severe.

At the Center, we see WNV in many of our corvids (crow, ravens, blue jays) and raptors (especially hawks and owls). Direct bird-to-human transmission of WNV has not been reported, but birds serve as a



Common Raven diagnosed with WNV.

Photo by Dr. Jen Riley.

reservoir for this virus. Though it can be debilitating and frequently fatal for some bird species, many other birds do not get ill and can keep the virus spreading. When a mosquito feeds on one of these reservoir birds, then feeds on a human or horse, they can transmit the virus to those species. Luckily, there is a vaccine for horses to prevent WNV and other encephalitides. No such vaccine is approved for humans.

By testing suspected WNV cases, we help to determine the annual prevalence in our area. We regularly work with our state wildlife agency and local health departments to be part of the solution. We have relatively good success treating cases where the disease is in the early stages by providing supportive care, but cases that are not caught early have an extremely poor prognosis.

You can help prevent WNV in humans, horses, AND birds by decreasing the mosquito populations around your home and vaccinating your horses. Dump any standing water in tires, flower pots, or trash bins and cover any water storage containers where mosquitoes can breed. Use screens on your windows to prevent mosquitoes in the home. These efforts will help fight WNV and many other insect-borne diseases!

Salmonellosis

Salmonella is a species of bacteria that causes illness in humans and animals and it impacts more humans than any of the other diseases discussed in this article! The CDC estimates that *salmonellosis* causes 1.2 million illnesses in the U.S. each year as well as many hospitalizations and a few deaths. Since many people are not impacted severely enough to be hospitalized, most people with *salmonellosis* are never actually diagnosed. The vast majority of diagnosed cases are caused by ingesting contaminated food, but ultimately, the food is contaminated by the salmonella found in animal feces.

Though people often associated salmonella with turtles and lizards, MANY animals carry salmonella! Birds, reptiles, and mammals all carry salmonella regularly. To prevent *salmonellosis*, wash your hands regularly—especially after touching pets or other animals or cleaning their living areas. Wash animal caging and dishes outdoors when possible or at least not in your kitchen sink to keep salmonella away from your own food sources. Avoid touching any wildlife with bare hands.

If you look at photos in our newsletter or Facebook page, you'll notice that our animal caregivers are always wearing gloves! *Salmonellosis* is one of the top reasons we do so. We all love animals and



Songbirds are some of the most common avian species known to carry *Salmonella*. Please wear gloves and use precautions when cleaning items that may have feces on them—like when you regularly clean your bird feeders! Photo by Dr. Jen Riley.

want to help, but please remember that your own safety is as important as the animal you are trying to help!

Cryptosporidium

Cryptosporidium, like *Giardia*, is a protozoan parasite that can spread between animals and humans. They are both often associated with water, causing outbreaks when swimming pools or water sources are contaminated by human or animal waste. Both diseases can present with severe diarrhea, cramps, and dehydration.

This past summer, we learned first-hand about *cryptosporidium* when an outbreak affected some of the patients and animal caregivers at the Center. This parasite, which is most commonly associated with diaper-aged children and cattle, has the potential to affect many species and ages! When patients and caregivers became ill at the Center, we joined forces with many other public health professionals and organizations to look for answers.

Our local health department was an amazing resource throughout the process and assisted us with arranging testing of human samples. We worked with our state animal health laboratory (Virginia Department of Agriculture and Consumer Services) to get our animals tested. The Centers for Disease Control and Prevention (CDC) then helped us identify the genotype of *cryptosporidium* that was causing the outbreak.

As bleach and other commonly used disinfectants have no effect on *cryptosporidium*, it would have been nearly impossible to remedy this situation without the assistance of all of these organizations. Once we had a diagnosis, we were able to clean with hydrogen peroxide (the most effective disinfectant for this extremely hardy parasite) and prevent future cases of the disease.

Though extremely exhausting on the staff and volunteers who worked through our busiest season with significant numbers of individuals unable to work, this situation was an amazing lesson in the importance of maintaining a One Health mindset. Had our staff not worked closely with these other public health organizations, many more people could have become infected. It is just one example of why focusing on One Health is so important.

What can you do?

Luckily, there are many things you can do to prevent the zoonotic diseases discussed here and the multitude of diseases that we do not have space to cover in this issue.

- Wash your hands! Be sure to wash your hands with warm water and soap, especially after handling animals, after using the bathroom, and before eating. Alcohol-based sanitizers are helpful, but they are no replacement for soap and water.
- Educate yourself on zoonotic diseases so that you know how they are transmitted and can avoid risky situations.
- Use protection (long-sleeved clothing, sprays, etc) when you will be outside in buggy areas to prevent bites from mosquitoes, ticks, and other vectors that may carry diseases.
- Wash your food! Many diseases that are transmitted in fecal material end up on food, especially raw produce. Wash well!
- Keep your pets healthy with regular veterinary visits, vaccines, and preventatives. Teach your children to be safe and hygienic around pets!
- If you become sick and visit your doctor, be sure to mention any interaction you may have had with wild or domestic animals.

By following these tips, you can help us keep humans, animals, and the environment healthy! We are all interconnected and there is only One Health! ■

Footnotes

1. <https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html>.
2. <https://www.cdc.gov/parasites/echinococcosis/disease.html>.

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Understanding Snakes



Eastern Milksnake. Photo by Dr. Jen Riley.

Many people have a fear of snakes, and we often get calls from people wishing to relocate or identify snakes found in their homes or on their property. Recently, a finder brought in a snake after killing it to confirm that it was a venomous Copperhead. Unfortunately, the snake was not a Copperhead, but instead a non-venomous Eastern Milksnake, which primarily eats small rodents and bugs. We are grateful for finders who appreciate snakes enough to bring them in for treatment, but it is easy to see that snakes are still unfairly persecuted.

If you do not enjoy having snakes around, then the best way to keep them out of your home and property is to reduce the prey (mice or small pests) that attracts them. Securing your home and making sure all doors are sealed, including garage and basement doors and windows, can help prevent snakes from entering the home. Removing old log or brush piles and keeping grass and lawns trim can make your property less appealing to snakes.

It is also important to learn about and understand snakes. Understanding snakes and their behavior can not only help you avoid snakes, but also help you realize that snakes aren't evil or conniving—they are important members of the ecosystem's food web. They provide a pest control service and, by extension, reduce populations of disease-spreading ticks around your home. Timber rattlesnakes, in particular, have been linked to a decreased occurrence of Lyme disease.¹

Most venomous snake bites can certainly cause serious health issues, though an estimated 1 in 4 pit viper bites are dry, meaning no venom is injected. Most bites occur when people intentionally attack these snakes or unknowingly step on or otherwise hurt them. They are not aggressive animals, but they will act defensively. The Virginia Herpetological Society is a great online resource to help you learn about the different species of snakes, as well as familiarize yourself with the 2-3 venomous ones, in your part of the state.

While we certainly agree that learning how to identify snakes is a good thing, the best course of action when you come upon a snake is to leave it alone. All wildlife should be given a wide berth to prevent wild animals from feeling like they must defend themselves.

Like other non-game species, killing or relocating a snake off your property is illegal in Virginia. Killing a snake is only legal if it is causing an imminent threat to you or your pets/livestock. If you have questions or concerns about a snake, please contact the Center or a permitted rehabilitator before taking lethal or illegal action.

¹ Kabay, E., Cruso, N., Lips, K. Timber Rattlesnakes may reduce incidence of Lyme disease in the Northeastern United States. 98th ESA Annual Convention. Minneapolis, MN. 2013.

HOW TO TELL IF A SNAKE IS DANGEROUS



Chart courtesy of the Columbus Zoo and Aquarium.

Rehab + Corner Interesting Cases

By Jessica Andersen



Virginia Opossum (*Didelphis virginiana*)

Our Mother of the Year Award goes to this Virginia Opossum! After being attacked by a predator and suffering from serious wounds and having multiple surgeries, she still managed to successfully raise seven opossum joeys. In the end, she made a full recovery and was released just like her babies! Opossums are marsupials, meaning they carry



their babies in their pouch with them—they don't have a nest or a den that they leave them in while they forage for food. When opossums are struck by cars or attacked by predators, the adult often dies and the babies are left too young to survive on their own. This mom and her babies were lucky to be found and receive care quickly. *Photo by Dr. Jen Riley.*



Barn Owl (*Tyto alba*)

This Barn Owl fledgling was found inside a silo on the ground with two siblings. Unfortunately, one of the siblings had already

died and the second sibling passed away shortly after intake despite intensive care. This sibling proved itself a survivor—even with being emaciated and dehydrated, it was aggressive towards staff, and readily took to eating on its own in just a few days.

After just a few short weeks of maturing and flight conditioning, this young owl was returned back to its original silo, where adults were seen roosting. It took off into a nearby tree, flying beautifully, and hopefully will reunite with its family to continue to grow and learn.

Photo by Dr. Jen Riley.

Turtles as Pets?

Many people think turtles make great pets because they believe they are low-maintenance, slow, and are otherwise easy to handle. While turtles are somewhat slow, and don't require near as much handling or training as other domestic animals, they still have very specific requirements concerning diets, UV lighting, and hydration, especially for baby turtles who are rapidly developing. Their extremely long lifespan also prevents them from being "low-maintenance" pets as they often outlive their owners if cared for properly.

Virginia state law requires that any wild-caught reptile that is held in captivity for more than 30 days must be a captive animal for the rest of its life. This law is in place to prevent the spread of diseases from pets or other captives to wild populations. Permitted rehabilitators are allowed to keep reptiles over 30 days for the purpose of rehabilitation, and must follow strict isolation and cleaning protocols to ensure that each animal does not jeopardize the wild population once it is released.

Many turtles end up becoming non-releasable when people find them as babies, confusing them for an orphan, or concerned for their safety at such a small size. They believe taking this turtle home and keeping it for a few months or years to keep it "safe" is the best option. In reality, they are robbing that animal of a life in the wild once that 30 days has passed. Quasimodo, one of our resident Box Turtle Ambassadors, has clear indications of what sort of damage inappropriate care can do to a turtle. Look closely at her beak and the size and shape of her shell. The hinge on her plastron, that allows box turtles to "box" themselves inside, doesn't work, leaving her vulnerable to predators. At her age, there is no coming back from the damage done by an inappropriate diet fed by well-intentioned finders. Please call the Center or a permitted rehabilitator if you are concerned about an animal—we can give you advice based on your specific situation! We know that people want to help, but even those with the best intentions often wind up doing more harm than good.





Red-shouldered Hawks (*Buteo lineatus*)

These nestling Red-shouldered Hawks were legally removed from their nest by our state game department as the parents had been harassing the homeowner. It appears that the nest was too close to the front door and the owner could not avoid walking past that area and upsetting the family. In this case, the homeowner did the right thing—she contacted professionals!

Once the nestlings were removed, they were brought to the Center and assessed. Since all were healthy, we were able to contact the finder and get permission to renest the babies in a nearby tree that was away from her front door. The babies did well and our executive director (who is also a permitted rehabilitator) went back regularly to check on these youngsters until they fledged.

So why renest when our staff is more than capable of providing care? Though the vast majority of raptor babies we raise do well and are released, human-raised babies will always be at a disadvantage compared to parent-raised young. Removing a nest full of young, healthy babies is traumatizing to the parents, the babies, and the rehabilitators who end up caring for them knowing that the babies had the opportunity for a better life.

As in the vast majority of cases, parents came back for



these little guys! Trail cameras and GoPros were used to monitor the young and ensure they were being cared for at the new nest site. Once we confirmed that the parents were returning regularly with food, we left the raising of these nestlings to the real hawk professionals—Mom and Dad!

The majority of young wildlife we take in are orphaned, sick, or injured and truly need to be in care because there is no better option for them. Please do not kidnap healthy babies!

We always encourage understanding and coexistence before removal of any healthy wildlife. Please remember that the removal of native birds from an active nest is NOT legal without proper permits. In a case like this (or more commonly, when babies fall from a nest), renesting is always the best option!



Eastern Rat Snake (*Pantherophis alleghaniensis*)

While reuniting a young fox kit with its family, our staff member spotted an Eastern Rat Snake curled around the gutter of the finder's home. It was a cold and cloudy day, and the

Peregrine Falcon

A Threatened Species Takes Flight



This juvenile Peregrine Falcon came to us after it was found on an apartment balcony, most likely after striking a window or sliding glass door in downtown Reston. It presented with severe respiratory distress requiring recovery in our oxygen chamber for three days before it was well enough to be moved to a larger crate.

While it had a guarded prognosis at first, this bird recovered quickly once it was finished with its course of medications, moving into an outdoor enclosure just a week after intake. In less than two weeks, this bird was flying well in our circular flight cage. After just two weeks in care, this falcon was released back in downtown Reston so that it would be reunited with the rest of its family.

Peregrines were extirpated from Virginia around 1960 due to the heavy use of a pesticide called DDT, which made the shells of their eggs fragile and caused them to break under the adults during incubation. In 1972, DDT was finally banned and by 1975, recovery programs were put into place to help bring the Peregrine back to the Commonwealth. While nesting sites have since been created and are heavily managed by the state, their populations are still of concern in the mountainous regions of Virginia and aren't yet self-sustaining, keeping them listed as a State Threatened species.

As a Category IIIA facility (permitted wildlife teaching hospital), we are one of the few facilities in our state that are allowed to take in and rehabilitate threatened and endangered species. We work closely with the Department of Game and Inland Fisheries to ensure these animals are released in accordance with their management plans.

Photo by Michael Oak.

Glue Traps

Glue traps are a **DON'T!** We receive many patients each year due to glue traps. These traps kill via dehydration and emaciation, which often takes days, causes extreme panic, and is incredibly painful.

DON'T: Try to remove the animal from the trap! People often assume that being caught on the trap is the key problem and attempt to remove the animal themselves. In most cases, the trap is simply what causes other life-threatening health issues, such as dehydration, emaciation, internal injuries, and hair/scale/feather loss. Trying to forcibly remove an animal from a glue trap can do more harm than good as this can break bones, painfully pull out feathers, scales, or fur, and cause more stress to the animal. We have had some cases where animals have been soaked in cooking oil to remove them from traps. Unfortunately, oil can cause more problems than the adhesive you are trying to remove. Animals will preen and clean the oil off themselves later, and this can kill them. Oil also compromises the ability of many animals to thermoregulate, which in colder climates can be life-threatening. Oiled animals, whether from an oil spill or an intentional removal from a glue trap, have a worse prognosis than an animal brought to us on a trap.

DO: Bring any animals caught on glue traps to the Center or your local rehabilitator. Simply cover the animal on the trap with a towel, place it in a box, keep it warm, dark, and quiet, and transport it to a rehabilitator as soon as possible.

DON'T: Use glue traps! Glue traps attempt to treat a symptom of a much larger problem—that your home has open access points and is providing some sort of resource to pests. Keeping food in air-tight containers, keeping food-prep areas clean of any crumbs or spills, and making sure to close all doors/openings to prevent unwanted pests will prevent the cruel suffering that comes from dying on a glue trap. Additionally, removing individual pests without addressing what brought them into your home only creates space for more new pests! Others will come and fill that position if you do not fix the original problem.

DO: Research your local rehabilitators and facilities now! Having phone numbers in hand and orienting yourself with the locations of wildlife facilities will help save time, and potentially save a life!



A Gray Catbird receives a bath after a well-intentioned finder severely oiled the bird in an attempt to remove it from a glue trap. Photo by Dr. Jen Riley.

snake was extremely lethargic, dehydrated, and was noted to have a cloudy spectacle (the scale that covers the eye). The fox was successfully reunited, and the snake was contained and brought back to the Center to be examined.

Upon intake, the snake was also found to have some swelling around the face, as well as small lesions forming beneath scales along the body. Samples were taken and sent off for diagnostic testing, which confirmed our suspicion that this patient was suffering from Snake Fungal Disease. As a relatively new disease in our area (first reported in NH in 2006), treatment protocols are still being developed, but a recent treatment involving nebulization with antifungal medications had shown promising results. In only a few weeks of treatment with this protocol, the snake successfully shed, started eating on its own, and began behaving normally. With resolution of clinical signs and negative skin samples, this patient was successfully released back where it was found.

It's important to have exact found locations for reptiles and amphibians—not just for legal reasons, but for disease spread and survivability too! Relocating reptiles, even just a mile or more, can cause detrimental effects to the populations in those areas as a whole. While we strive to help every individual animal, the health of the larger population always takes priority. Without found locations for reptiles, we are not legally allowed to release them.

If you must relocate a reptile from your home, please remember to only release on your property or at the very edge of your property—you could be hurting both that animal and the rest of the popula-

tion by relocating any further. If you find a snake (or other reptile or amphibian in the road) and it has not yet been hit, please just move it across the road in the direction it was moving. One reptile being hit by a car is tragic, but relocating a reptile and allowing it to spread diseases that could kill entire populations is far worse. Photo by Dr. Jen Riley.



Common Five-lined Skink

(*Plestiodon fasciatus*)

Each year, we take in a few dozen animals that were unintended victims of traps. These Common Five-lined Skinks were most likely attracted to the glue trap by all the bugs, their normal prey, and ended up becoming caught themselves. Unfortunately, trapping natural predators in this way only makes the pest situation worse and it provides a cruel death for all involved. Learn more about glue traps in the inset to the left. ■

Photo by Dr. Jen Riley.

Just a Reminder

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!

Education Updates



First Annual WildFest



Over 400 people attended our first annual WildFest this past June, despite the threat of rain. Families were entertained by our guest exhibitors and our face-painter in between our Ambassador appearances. The festival also included local food vendors, who provided lunch items, popcorn, and baked goods. Our thanks to the following for their support of the event and BRWC's education program: Barry Lee and WINC FM; Kim Smith In-

surance; Creative Concessions; Birds and Beans Coffee; Bank of Clarke County; JCS Home Services; Winchester Printers.

We would also like to thank our partner organizations for helping make the event such a success, and our venue, the Clarke County Ruritan Fairgrounds. We hope that everyone who attended enjoyed the event, and we look forward to seeing you there next year! ■

Photos by Dara Bailey.

Wildlife Discovery Camp



Our annual camp for budding wildlife enthusiasts came to a close in July, after three weeks of fun in nature! Campers explored the woods surrounding the property, and got to see deer, vultures swooping overhead, and even a three-legged box turtle! Younger campers learned about the importance of pollinators, and one of the Center's volunteers introduced them to our honeybee hives—even helping them try on beekeeping equipment. Older campers made s'mores in a solar oven, made plaster casts of wild tracks found on property, and learned

all about pond life during a trip to the pond. All campers had the opportunity to meet our amazing Wildlife Ambassadors and learn about their stories! Campers also had a chance to simulate being a rehabilitator at BRWC! After touring the hospital and learning from our veterinarian and rehabilitators, groups were given mock patients in need of care and handled these patients from intake to x-rays to daily care! We are so glad to be part of the learning process for such enthusiastic young wildlife stewards! ■

CPR and First Aid Training



Not only does our staff treat wildlife, but now they can help save human lives as well! Our staff recently received or renewed CPR and First Aid certification through the American Heart Association after training was provided by Clarke County Fire and EMS. Even though most of our time is spent caring for our wildlife patients, our Center provides services to volunteers, finders, transporters,

and children and adults attending education programs. Our facility is located 30 minutes from the nearest hospital and 20 minutes from an emergency medical services station. It is apparent that the first responders to an emergency at the Center would be the staff. We received training on life-saving skills for the safety of our visitors, though we hope we never have to use our new skills! ■



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

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

Thank You Blossom

We are sad to announce the loss of an amazing team member—our ambassador, Blossom the opossum.

Blossom came to us in 2016 with head trauma as a result of a vehicle collision. Due to permanent brain damage which made her unable to survive in the wild, and a necessary partial leg amputation, she was kept as a wildlife ambassador.

Over the past three years, Blossom has taught thousands of adults and children to love these often under-appreciated creatures!

Thank you for your years of service. You will be greatly missed by the staff, our volunteers, and your adoring fans!



TAIL END