

The Ridgeline

NEWSLETTER OF THE BLUE RIDGE WILDLIFE CENTER

ISSUE 58 | SUMMER 2023



**Training at
Blue Ridge Wildlife Center**

Learn more about
this patient on
page 5.

Investing in Young Professionals



What do our ambassador animals and interns have in common (apart from being awesome)? Both receive comprehensive training from our team of experts at Blue Ridge Wildlife Center (BRWC)!

At BRWC, we believe that investing in the training and development of young professionals is a crucial step toward securing a brighter and more sustainable future for wildlife and the environment. Our internship program serves as a steppingstone for students and recent graduates seeking careers in wildlife medicine, rehabilitation, conservation, and education. We offer an enriching experience that encompasses hands-on learning, personalized mentorship, and exposure to diverse aspects of wildlife care and management.

As we face extraordinary challenges in preserving our natural world, BRWC continues to invest in the passion and skills of young individuals, empowering them to become advocates for wildlife conservation and responsible stewards of our planet.

Among our core initiatives, we place particular emphasis on training our ambassador animals. These animals, all of whom are non-releasable native wildlife, serve as living examples of the impact of human activities and play a vital role in educating the public about the significance of wildlife conservation and the importance of coexistence with our natural neighbors.

The training of our animals is beneficial to their physical and mental well-being and provides enriching experiences that promote their natural behaviors. Through their stories and close interactions, our ambassadors leave a lasting impression on visitors, cultivating empathy and understanding towards wildlife. Through this approach, we hope to ignite a spark of curiosity and compassion in the hearts of people, inspiring them to become responsible stewards of our planet.

Together, our ambassadors and interns exemplify our unwavering dedication to nurturing a shared sense of responsibility for the well-being of wildlife and ensuring their survival for generations to come.

With gratitude,

A handwritten signature in black ink that reads "Annie Bradfield".

Annie Bradfield

Our interns are even trained on how to train ambassadors! Nashia Martinez, Education Intern, with Moira, BRWC's ambassador Turkey Vulture.



Join our Wild team!

If you're interested in a volunteer position, or a rehabilitation, veterinary, veterinary technician, or education internship with us you can find the application on our website at blueridgewildlifectr.org



Training Future Wildlife Veterinarians and Veterinary Technicians

This year, we hosted more than 30 vet and vet tech students coming to work with us from more than a dozen states across the country, and as far away as Australia! With their typical curriculum focused on domestic species such as pets and livestock, students interested in wildlife medicine typically must pursue elective clinical rotations to gain experience in this field. Our teaching hospital provides these critical opportunities in the form of

immersive hands-on internships as well as short-term externships; we even take on already-licensed veterinarians that simply want to explore their interests.

All students are taught basic wildlife triage and stabilization, even if they don't plan on working with these species professionally. Because rehabilitators cannot charge for services or receive government funding—hospitals like ours are 100% supported by private donors and grants—few

can employ veterinary staff, and they often turn to local companion animal clinics for help. Our goal is for students, regardless of specialty, to feel better prepared to deal with wildlife when they're faced with it later in their careers!



Top row from l to r: Veterinary students discussing radiographs with Dr. Hsieh; Students assist Dr. Riley with surgery on a Northern Watersnake. **Bottom row from l to r:** Veterinary student Brittney Graham debriding a wound on a Woodland Box Turtle; Dr. Hsieh working with veterinary students Katie Thomas (l) and Austi Davies (r) on a hatchling songbird intake.

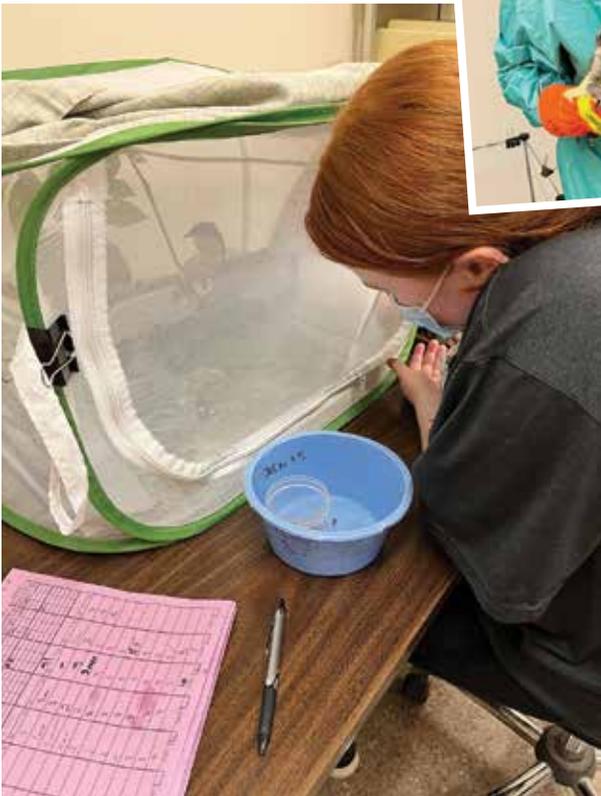
Rehabilitation Interns

This summer, we had the pleasure of mentoring 11 rehabilitation interns! Rehab interns are generally college students or those fresh out of high school, but we take interns of any age over 18. Our interns gain experience in animal handling, husbandry, diet preparation, medication administration, and everything else that a patient's rehab journey entails. These students work either two (part-time) or four (full-time) ten-hour days with staff and volunteers, learning the ins and outs of our hospital. We provide a stipend to cover living expenses, and while many of our interns reside locally (within an hour's drive), housing is also available for individuals who need it—in particular, those from out-of-state!

Although summer is nearly over, we take rehabilitation interns on a seasonal basis—January to April, May to August, and September to December (though start/end dates are flexible)!



Above: Kaelin Cruz (l) and Colin Nelson (r).
Inset: Kristian Mahoney.



Bryn Large.



Alex Brewer.

Patient + Corner

Mississippi Kite

This Mississippi Kite was a species first for the Center! Though they are known to breed in Virginia occasionally, their typical breeding range is much further into the southern US. The bird was admitted after being found near a road, likely hit by a vehicle.

Suffering from a fractured humerus, this kite underwent surgery to stabilize the fracture using a tie-in external fixator.

Despite major tissue damage around the fracture site, the bones have healed and all bruising has resolved. We will soon be moving this bird to outdoor caging to perform their own physical therapy and begin flight conditioning. We hope they will be ready for release by fall when this species begins to migrate back to their wintering grounds.



Rehab intern, Trevor Beamer.

Bald Eagles



This year we've taken in 18 Bald Eagle patients. This juvenile Bald Eagle (shown above) came from the Northumberland County Sheriff's Office after they were observed down in a yard for an entire day. The bird was dehydrated, emaciated, depressed,

and had a noticeable left-wing droop. Despite this, radiographs and the physical exam revealed no broken bones. This bird also had sub-clinical levels of lead in their blood.

This adult Bald Eagle (shown at right, and as seen on the cover of this issue) was brought to us from King George County unable to fly. Despite also having no fractures on exam or with radiographs, this bird did have superficial lacerations on their face and some light swelling around their right eye, indicating that this bird was potentially the victim of being struck by a car. Though this bird had difficulty flying higher than a few feet for many weeks, this adult began improving and eventually flying well. This eagle was returned to their found location in early August!

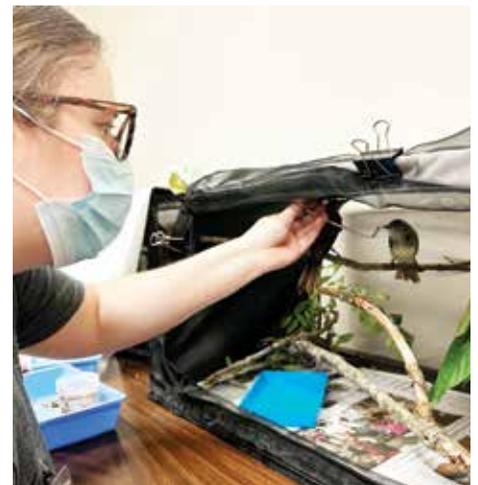
Veterinary intern,
Austi Davies.



Great Crested Flycatchers

A species rarely brought into the Center, these two Great Crested Flycatchers were found as nestlings on the ground. After being fed by finders, these babies were unable to be re-nested and required additional care. These youngsters did great in care and have now been released!

Remember not to feed wildlife, especially babies, as it can lead to infection, aspiration, malnutrition, and an upbringing without their parents. Developing extremely quickly, birds are at considerable risk for these issues, some of which have life altering or ending consequences.



Rehab intern, Madison Smith.

Striped Skunks



Our team raised nearly a dozen skunk kits this summer! All the different babies showed signs of parental neglect, including dehydration, poor body condition, and weakness. Some were found wandering alone without parental care and some were found near dead adults. Although these kits are all unrelated, growing up with conspecifics (members of the same species) is vital to both mental and physical development, and babies readily accept one another. These kits have now all been released!

Big Brown Bats

Early in June, baby bats (commonly Big Brown bats) began coming into the Center due to issues like domestic animal attacks, failed reuniting after falls from the colony, and true orphaning. The two baby Big Brown Bats that came into care earlier this season grew up fast! They have now been moved to our outdoor bat caging where they can practice flying and catching bugs prior to release!



Rehab intern, Alisa Geise.



Did you know? It is illegal to raise or rehab a wild animal without the appropriate license and permits. If you are located in Virginia, use this website to find a licensed wildlife rehabilitator near you: dwr.virginia.gov/wildlife/injured/rehabilitators/.

Snakes

Our interns were involved in over a dozen snake surgeries this summer! In addition to gaining skills in the medical management and general husbandry of snakes, they were able to gain an increased understanding of the threats these under-appreciated species face.

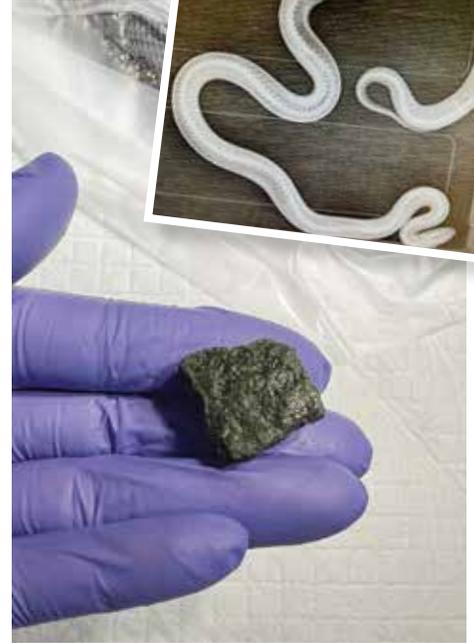
Students assisted with laceration repair surgeries on Eastern Ratsnakes and Northern Watersnakes that had become entangled in garden netting.



Jennifer Farmer, a veterinary technician extern, restrained this Eastern Ratsnake for exam and removal of garden netting.



Veterinary student Brittney Graham performed a laceration repair on this Northern Watersnake under the supervision of our veterinarians.



This Eastern Kingsnake ingested a rock and required surgical removal of the foreign object.



This Eastern Copperhead was injured by a weedwhacker and required surgical repair of his lacerations.

Woodland Box Turtle

We have admitted over 130 Woodland Box turtles so far this year, many of whom were hit by vehicles, had old, infected injuries, were attacked by domestic animals, or experienced human harm. Our staff and interns have been hard at work providing the best care possible for our many box turtles, as they require hours of care each day. Daily treatments include physical therapies, wound cleanings, bandage changes, injections, and medicated soaks. Reptiles have incredible, although slow, healing capabilities and often recover from even the most severe injuries with time, supportive care, and medical treatment.



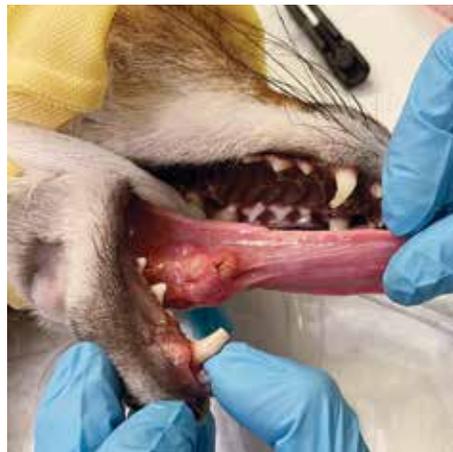
Rehab volunteer, Christina Livingston.

Pickerel Frog

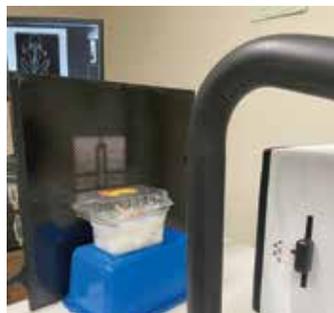
This Pickerel frog gave our veterinary students a great example of something they will see in exotic companion animal practice as well as wildlife medicine! Cloacal prolapse is a common but often life-threatening situation for birds, reptiles, and amphibians. The cloaca is the end portion of the digestive tract in non-mammalian animals where the digestive, reproductive, and urinary tracts come together before leaving the body. Prolapse can be caused by a variety of issues including straining to defecate due to foreign bodies, gastroenteritis, dehydration, parasitism, trauma, or toxin exposure. It affects exotics pets just as it does wildlife. This case gave our students the experience of treating a cloacal prolapse case from diagnosis, to ruling out causes via radiography, to immediate repair and longer-term management. When we train students, we are never just helping one animal—we are helping the many patients these students will treat in the future!

Jasper

Our education animals receive regular health checks and veterinary care from our team as needed. Our red fox ambassador, Jasper, recently developed an abscess at his tongue base. Here you can see our staff and students examining Jasper's mouth and taking samples for diagnostics. Jasper did great and is now happy and healthy!



Dr. Emily Hsieh (center) is assisted by interns with Jasper's surgery.



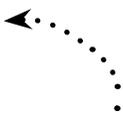
Pickerel Frog from intake, to xray, repair, and rehabilitation.

One Health Research at Blue Ridge Wildlife Center

One of the most important roles of wildlife hospitals like ours is contributing to research that improves health for humans, wildlife, and the environment. Our most recent publication is *La Crosse Virus Circulation in Virginia, Assessed via Serosurveillance in Wildlife Species*, which is open-access in *Infectious Disease Reports* recent issue on Zoonotic viruses responsible for encephalitis.

This study was led by the Department of Entomology at Virginia Tech with whom we work on three different One Health studies including La Crosse Virus (LACV), St. Louis Encephalitis Virus, and a prevalence study on three tick-borne diseases (Bourbon, Heartland, and Powassan Viruses). Although the LACV study is ongoing, these early results indicate that LACV is present and circulating in non-Appalachian Virginia, but at lower rates than the known endemic regions within our state and neighboring states.

Data like this is important to help guide veterinarians and physicians to appropriate differentials when attempting to diagnose causes of encephalitis. As a teaching hospital, it is also a great opportunity for our students to get involved in One Health research! In this photo, one of our veterinary students, Shelby Bettencourt, is taking a blood sample from an eastern cottontail patient as part of a tick-borne disease study. When you support wildlife hospitals like ours, you are not only supporting the medical treatment and rehabilitation of individual patients—you are supporting research, teaching, and public health!



Scan the QR code to read the full article.





Training Wildlife Ambassadors

Ambassador animal care is not as simple as providing food, water, and shelter. There must be some aspect of training to ensure that the animals we spend our lives caring for have a calm and enriched life. Every one of the 18 educational ambassador animals that call Blue Ridge Wildlife Center home is here because they could not survive on their own in the wild.

Wild animals are highly intelligent and powerful creatures. However, some may face long-term physical or mental learning disabilities when they experience traumatic events before coming to our rehabilitation hospital, such as collisions with cars, windows, powerlines, or poisoning, gun-

shots, encounters with feral and domestic pets, and more.

We, as humans, have it easy. We help each other out, learn as we grow, and make improvements where necessary. We are given several chances and a lot of time to do so. On the other hand, we often idolize nature for being 'wild and free,' but we tend to forget that nature has no forgiveness. Most wild species live to be less than ten years old and must become fully functioning adults within a few months. Predators are always looking for prey, while prey animals are constantly trying to stay hidden from those predators. In doing so, they all must remain fully aware of

their surroundings every second around the clock for survival.

Despite the expert medical care, they receive at Blue Ridge Wildlife Center, it is not always possible to return animals to the level of functionality required for survival. In such cases, some animals are able to remain with us or transfer to another facility in the state as educational ambassadors, as long as they meet several criteria. It would be inhumane to keep animals alive with permanent, chronically painful, or fatal injuries/illnesses solely for our emotional benefit. Therefore, we must consider their short and long-term quality of life, always keeping our patient's welfare at the forefront of the decision-making process. Additionally, there are federal and state restrictions on what can be legally (and humanely) kept for educational purposes.

We have to cater to each species' characteristics, natural history, as well as the individual's physical or mental disabilities and their preferences.

This can present a variety of challenges during training. We have to cater to each species' characteristics, natural history, as well as the individual's physical or mental disabilities and their preferences. We then tailor personalized training methods by incorporating appropriate operant conditioning techniques, such as positive reinforcement. Patient trainers can help these animals reach their full potential as successful and confident individuals."

Gryllz, the Red-Tailed Hawk, came to us in 2016 as a first-year juvenile. He had been struck by a vehicle and was later found tangled in the grille of a pickup truck when the driver reached home. Gryllz suffered a fractured wing and damage to his right eye. While the wing was surgically repaired and he is flighted, he has no vision in his right eye.

Releasing Gryllz would set him up for failure because he needs binocular vision



Gryllz, the Red-tailed Hawk.

to keep track of prey and avoid other predators and dangers, like cars.

Training a young raptor with limited vision can be somewhat tricky. For example, since Gryllz is blind in his right eye, if we were to hold him on our left arm, his focus would be away from us, making it challenging for him to participate in training. While training Gryllz, we have to constantly make sure his focus is on us to avoid distractions or surprises.

Scale Training

Raptors, such as eagles, owls, hawks, falcons, and vultures, are highly motivated by food, both in the wild and under human care. Therefore, getting them to step onto a scale or a gloved hand can be fairly easy, especially if the bird is young and can understand that people and certain objects are not threats. However, this is not the case with every animal. Just like people, raptors have their own unique personalities, so taking things step by step and catering to each individual is incredibly important for the success of the training process.

With the help of some great trainers,



Gryllz, the Red-tailed Hawk, and Mocha, the Striped Skunk ambassador participating in scale training.

Gryllz quickly learned to step up to the glove or onto a scale in exchange for a small piece of rat, mouse, or quail (we also learned that he really dislikes fish). We are now working on teaching him to fly from glove to glove and eventually fly in front of guests for our educational programming. If Gryllz hesitates about stepping up or flying to the glove/perch, we take a step back and try again after a minute or two.

As he performs the desired behavior, he is rewarded with a mouse/rat tidbit each time until he is full. Keeping the training consistent day by day helps Gryllz learn what is expected of him and what he should expect from us. This allows everyone involved to be as comfortable and stress-free before, during, and after a training session.

Focusing on a single task at a time is

Why would they need to be scale trained?

Training an animal to step onto a scale on its own is important in captivity for several reasons:



- **Health Monitoring:** Regular weight monitoring is a crucial aspect of animal health care. By training an animal to step onto a scale voluntarily, caretakers can easily record their weight over time. Sudden weight changes can be indicative of health issues, and early detection allows for prompt veterinary attention.

- **Non-Invasive:** Voluntary weighing eliminates the need for physical restraint or sedation, which can be stressful for the animal and may not be suitable for regular weight checks. A trained animal can step onto the scale willingly, reducing stress and potential risks associated with forced handling.

- **Behavioral Enrichment:** Training an animal to perform new behaviors, such as stepping onto a scale, provides mental stimulation and enrichment. It engages the animal's cognitive abilities and encourages positive interactions with caregivers, contributing to their overall well-being.

- **Data Collection:** Accurate and consistent weight data is valuable for evaluating an animal's growth, health trends, and dietary needs. Such data can inform adjustments to their care and diet to ensure they receive optimal nutrition and healthcare.

Pictured: Jasper, the Red Fox and Moira Rose, the Turkey Vulture.



Why would they need to be crate trained?

Training educational animals to go into a crate can be important for their husbandry and welfare for several reasons:

- **Veterinary Care:** Crate training enables easier and less stressful transportation to veterinary appointments. When an animal is comfortable entering a crate, it becomes less challenging for caretakers to bring them into our hospital area for routine health checks or if they require medical attention.
- **Safe Travel:** If the animal is involved in educational programs or outreach activities, crate training ensures safe and secure transportation between locations. This minimizes stress during travel, reducing the risk of injury or escape.
- **Emergency Situations:** In case of emergencies, a crate-trained animal can be quickly and safely moved to a secure location, ensuring their safety and facilitating any necessary evacuations.
- **Stress Reduction:** if the animal needs to be temporarily crated for cleaning or maintenance of their enclosure crate training can make the process less scary if they are afraid of rakes, hoses, scrub brushes etc.



Pictured: Kevin, the American Kestrel (l) and Goose, the Peregrine Falcon (r).

The care and training of animals require a profound understanding of their natural instincts, individual limitations, and dedication to their well-being.

often the best approach for more timid birds. Once they master a task within a day or two, we can work on multiple things per day. For example, with Goose, our Peregrine Falcon who had a partial wing amputation after being hit by an airplane, most days she will step up to the scale, enter the crate, and then step up to the glove—all within the same training session. We reward her every step of the way to reinforce the behavior we are asking for. However, some days she doesn't want to participate at all, so we shift our attention to working with another animal and then come back to her later. When she's ready to participate, we continue with the training as normal.

Customized Enclosures

We also consider the enclosure set-up, ensuring that each one is individualized to allow the animals to move with ease. For example, Goose, the non-flighted Peregrine Falcon, has over 15 different platforms and perches positioned close to each other, providing her with plenty of options to move around freely. On the other hand, Gryllz, the flighted Red-tailed Hawk, has fewer perches of varying lengths and heights that are fully accessible to him.

Animal Welfare

The care and training of animals require a profound understanding of their natural instincts, individual limitations, and dedication to their well-being. As we strive to educate the public through our educational ambassadors, we also emphasize the importance of coexisting with wildlife in a manner that respects and safeguards their habitat. By fostering a sense of appreciation and understanding, we can contribute to the conservation of these remarkable beings and the ecosystems they inhabit for years to come!

Wildlife Discovery



Camp!

Another successful camp season has come to a close! Over 100 campers attended our annual **Wildlife Discovery Camp** during our four weeks this summer, learning about wildlife, our ecosystems, and the work of BRWC and other wildlife heroes.

Games, activities, and crafts accented classroom-style lessons about pollinators, decomposers, fossils, conservation, and wildlife rehabilitation, with special appearances by our wonderful Ambassador animals!

Led by our Seasonal Educators, Ashton-William Bohince and Lydia Mathers, our campers learned so much and made some great memories!



New Waterfowl Complex

This year's duck and geese patients have been loving our new waterfowl complex!

These three waterfowl cages were specially-designed for our waterfowl patients, constructed under the direction of volunteer, Terry Bradfield, and built entirely by volunteers, including Trenton, a dedicated Boy Scout. Each cage is built upon a Trex platform, with materials donated by Trex Company, while materials for the cages were bought with funds raised from our past "Wet and Wild" Giving Tuesday campaign. They have been a few years in the

making and we are thrilled to finally have all three cages in this complex in use!

Thank you to everyone involved in the design, building, and funding of these cages. Our staff and patients are so grateful for your support!





Dr. Jen releases a Bald Eagle at Sky Meadow State Park. Photo by Maile Bradfield.

ABOUT BRWC

Address: 106 Island Farm Lane, Boyce, Virginia 22620

Wildlife Hotline: (540) 837-9000

E-mail: info@blueridgewildlifectr.org

Web: blueridgewildlifectr.org

BRWC protects and conserves native wildlife by integrating veterinary medicine, rehabilitation, public education, professional training, and research.

BRWC is a 501(c)3 organization (EIN 54-1996991) and relies on private donations exclusively. Wildlife Centers may not receive payment to treat animals, nor do they receive state or federal funding. Contributions are tax-deductible.

BRWC is located on the Burwell-van Lennep Foundation (BVLf) property in Boyce, Virginia. The mission of the BVLf includes preserving the diverse ecology of this land, protecting wildlife, and environmental education. BVLf generously provides the land to BRWC at no cost.

THE RIDGELINE

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Designed by Dara Bailey Design

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Save the Date!

Saturday, September 2 | 11:00 a.m. - 4:00 p.m.

The State Arboretum of Virginia at
Blandy Experimental Farm | Boyce, VA

*New
Location!*

Join us for this **FREE** community event! The day will include demonstrations featuring our wild animal ambassadors, meet lots of local conservation groups, play fun games, go on birding and plant walks. It's going to be a **WILD** and fun afternoon!



TAIL END

Photos by Dara Bailey