

IN THIS ISSUE

Brandywine Zoo Explorers Backpack2
Update from the Zoo Director3
What's New At The Zoo-Part Two4
Traveling Zoo is Back!5
Diversity Storytime Takes Off!5
Sip & Stroll 6&7
American Kestrel Monitoring 8&9
DZS Ex. Director Message 10
Meet the Lemurs
Fundraising for Conservation 12
Upcoming Events

Board of Directors

Arlene Reppa, President Serena Wilson-Archie, Vice President Gabriel Baldini, Treasurer Sarah Cole, Secretary Kevin Brandt Cameron Fee Candice Galvis Linda Gray Amy Hughes Aaron Klein Megan McGlinchey Michael Milligan William S. Montgomery Cathy Morris Matthew Ritter, (DNREC) Richard Rothwell Daniel F. Scholl Mark Shafer, Executive Director Brint Spencer, Zoo Director Francie Warther

Support Staff

Melanie Flynn, Visitor Services Manager Kate McMonagle, Marketing & Special Events Manager Shaylyn Harmon Membership & Development Coordinator

EDITOR

Kate McMonagle**

PHOTO CONTRIBUTIONS

Daisy Fiore** Rebecca Pilkington* Jim Smigie Brint Spencer* Robin Sutker* Jacque Williamson**

WRITERS

Jacque Williamson**
Robin Sutker*
Daisy Fiore**
Rebecca Pilkington*
Brint Spencer*
Mark Shafer**

DESIGN/PRINTINGProfessional Duplicating, Inc.

- * Delaware State Parks Staff Member
- ** Delaware Zoological Staff Member

The Zoo News is a publication of the Delaware Zoological Society.





On the Cover

Southern pudu arrived at the Zoo in late April, signifying the first of several new South American species in the Our Zoo Reimagined Master Plan. The mother daughter duo, Chloe and Clover, are currently sharing a habitat with the toco toucan breeding pair. Southern pudu are the world's second smallest deer species, weighing 16 pounds and standing less than 20 inches in height!



Photo by: Robin Sutker



EXPLORE THE ZOO WITH YOUR VERY OWN REFILLABLE BRANDYWINE ZOO EXPLORERS BACKPACK, COMPLETE WITH ALL YOU NEED FOR YOUR EXPEDITION AT THE ZOO.

Geared to elementary school age children, the backpack comes with a themed workbook and fun activities that can be done while at the zoo and when you get home. The signature zoo backpack also contains a snack and a drink. The zoo offers a new activity theme each month, so you can refill in future zoo visits and explore new animals and in each visit to the Brandywine Zoo. Wear your Brandywine Zoo Explorer backpack every time you visit the zoo and be recognized as a true Zoo Explorer!

Backpacks are available for sale at Zootique Gift Shop or on our online store.



www.brandywinezoo.org

Update from the Zoo Director

By Brint Spencer, Zoo Director

Warmer, sunnier days. The sounds of children's voices at the zoo again. New animals and exhibit spaces and ongoing construction. Things are pretty exciting at the Brandywine Zoo.

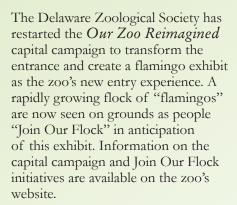
As Covid restrictions are being eased the zoo has seen a couple months of strong attendance numbers. People are excited to do things outside again. The zoo has monitored attendance numbers to allow for appropriate social distancing and is viewed as a safe venue for family activity.

Sip & Strolls are a series of new evening events where the zoo is open two Wednesday evenings during the summer. Beer and wine are available for purchase. These events have proven to be very popular and the first three have sold out. Check the zoo's website or social media for upcoming dates and get your tickets early so you don't miss out.

Work is continuing on the new Animal Care Center. Most of the underground utility work has been completed and in the next few weeks the exterior and interior walls should start rising up. This is an exciting project for the zoo that will greatly enhance our ability to provide exemplary care to our animals.







So, come on out to the zoo. Bring your family and see the new Madagascar exhibit and our other new residents. Come to a Sip & Stroll,

have a beer and enjoy an evening at the zoo. Check out the capital campaign and masterplan online. It is a great time to get involved with the Brandywine Zoo!









What's new at the Zoo - Part Two!

By Robin Sutker, Assistant Curator

Summer is officially here – the trees have all leafed out, the goats finished shedding their winter coats, and the lemurs are enjoying prolonged sunning sessions in their new habitat. When visiting the Zoo, you'll see updated signage, a welcome return of volunteers, and a few new animals too. With the Madagascar habitat coming to life this past spring, we welcomed three species of lemurs, radiated tortoises, and helmeted guinea fowl to the Zoo. Now that summer weather has arrived, we are excited to share the recent expansion of three other mixed species habitats.

Toco Toucan and Southern Pudu:

In March and April, guests and Zoo staff alike have watched two former habitats near the barnyard merge into one: the new toucan and pudu habitat! The male toucan, Julio (a long-time resident of the Zoo), and his new female mate, Pablo, moved to their newly designed habitat at the end of April. The birds were paired by the toco toucan Species Survival Plan® (SSP), which works with zoos around the country to cooperatively manage animal populations in human care. Native to semi-open woodlands of eastern South America, the toco toucan is designated as Least Concern by the IUCN Red List of Threatened Species but as with all species in the region are threatened by deforestation.



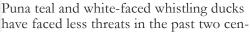
While the Brandywine Zoo has not bred toco toucans in the past, the pair appears to be thriving in their new space and displaying ideal bonding behaviors. Guests will see the birds working on their "cavity nest" box; it was initially filled with leaves, sticks, and the hole was covered over with cork for the birds to excavate as they would to a tree cavity. The male (whose beak and body are both larger than the female's) can be seen feeding the female, standing guard around the nest box, and beak clapping with the female. Keepers are hopeful for toco toucan chicks in the future!

Once the toucans were settled into their new habitat, a mother daughter pair of southern pudu joined the birds. The females, named Chloe and Clover (mother and daughter respectively), are from the Jacksonville Zoo and Gardens in Florida, and were transferred to Brandywine upon the recommendation of the Southern pudu SSP®. Their arrival signifies another step towards the Our Zoo Reimagined Master Plan, as the species will eventually joining other South American animals at the front of the Zoo. Southern pudu are the second smallest deer species, only slightly larger than the northern pudu, and are native to the temperate forests and scrublands of southern Chile and Argentina. This pudu subspecies is considered Near Threatened by the IUCN Red List.

Snowy Egrets, Puna Teal, and White-faced Whistling Ducks:

As the Zoo progresses towards the multi-year Master Plan, two other habitats welcomed new residents. The bald eagles and common ravens were joined by three snowy egrets in May, and the capybara and scarlet ibis habitat welcomed puna teal and white-faced whistling ducks that same month.

Snowy egrets are found throughout the Americas, including coastal Delaware. Once prized for their white plumage in women's hats, wild populations have significantly rebounded since the establishment of the Migratory Bird Treaty Act of 1918.



turies than snowy egrets, but will both likely see populations declines with the rapid degradation of their lake-habitats due to urbanization. These two duck

species are both dabblers, skimming the top of the water for seeds and vegetation. Both are native to South America, and the white-faced whistling duck also has populations in sub-Saharan Africa. FUN FACT: white-faced whistling ducks are named for the bright white heads and the noise they make when communicating. Next time you're at the Zoo, listen closely for their unique calls!









Traveling Zoo is Back!

By Daisy Fiore, Assistant Curator of Education

The Brandywine Zoo education department is thrilled to announce the long-awaited return of our Traveling Zoo programs! All of our in-person education, including traveling outreach and onsite field trips, had to stop in March of 2020 along with the zoos closure. We have been working hard to prepare for returning safely to in-person programming, and we are delighted that as of the end of June we are now able to offer in-person education.

Traveling Zoo came back with a bang on June 19th when Assistant Curator of Education Daisy Fiore took the brand-new conservation education interns on the first Traveling Zoo since early 2020. We visited the Horseshoe Crab and Shorebird Festival at the Milton Historical Society with snakes Indy and Bibi and hermit crabs Leonardo Da Pinchi and Lenny Crabitz. The whole team had a blast advertising the Brandywine Zoo and educating the public about how to be responsible beach goers. We even talked about the capital campaign and handed out brochures about our education programming to teachers! Our new in-person education may look a little different with our safety precautions in place, but we are safely spreading the word about zoos and the environment!

We already have several more Traveling Zoo programs booked for retirement homes and summer camps, and we are looking forward to visiting classrooms and libraries soon! We also have Zoo School up and running, where groups can visit the zoo, experience one of our educational programs, and even get a personal tour of the zoo with an educator. If you or anyone you know is looking for a zoo booth for their event or an education program, we are back in business!



Diversity Storytime Takes Off!

By Daisy Fiore, Assistant Curator of Education

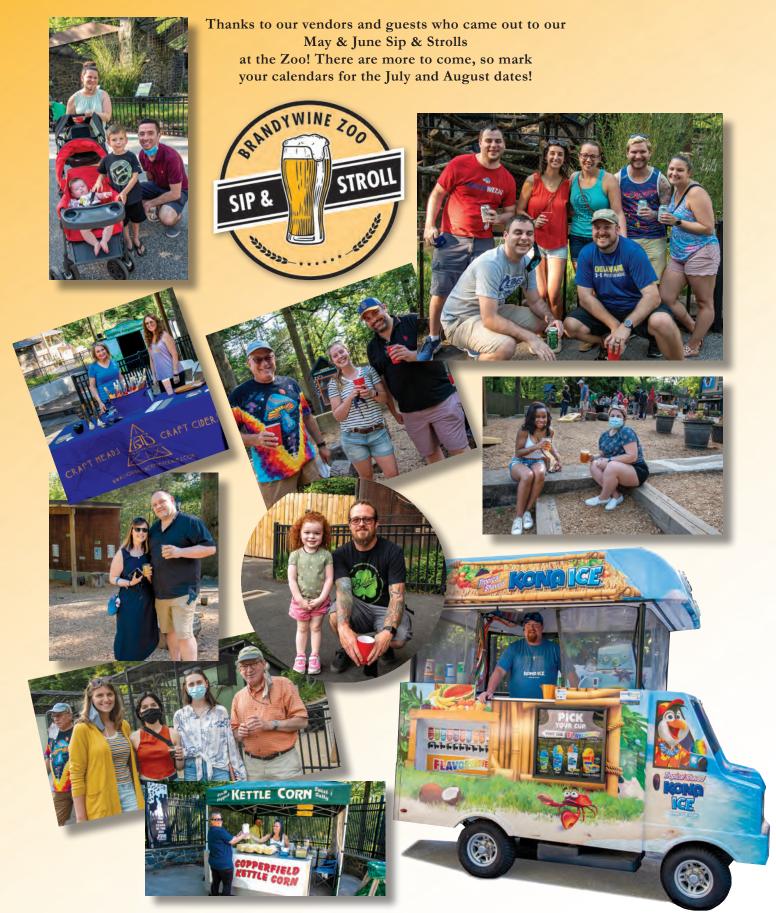


The education department has been hard at work on our summer storytime series: Diversity Storytime. Each week on Tuesdays and Saturdays we read a different story on Facebook Live where anyone can tune in for free. Each book has been specially chosen to feature diverse characters and themes. We are now in the fourth week of Diversity Storytime and we could not be more thrilled with how it's going so far!

Our first three weeks have featured books about Cameroonian culture, LGBTQAI+ characters, and neurodiverse characters. The reception has been fantastic, we have had over 1,554 views on our videos! With plenty of likes and shares, our storytime series is off to a wonderful start, and there are still 10 weeks to go! Each week's story is also loaded onto our YouTube channel for people to watch at any time.

Diversity Storytime is part of the Brandywine Zoo's continuing dedication to diversity, equity, and inclusion. We're continuing that dedication with our first ever Pride Month event! On June 27th we're inviting the Wilmington community to enjoy the zoo in their pride month gear. We'll be hosting a raffle, education programming about the colors of the animal kingdom, a photo scavenger hunt, and a craft table for kids!

Sip & Stroll



Sip & Stroll



Field Upate: American Kestrel Monitoring

By Jacque Williamson, Curator of Education & Conservation

This June, we concluded the 8th season of our American kestrel nest box monitoring program. This season, we successfully banded adult kestrels at 7 nest locations: the University of Delaware farms in Newark (1), Winterthur (1), Delaware Nature Society Ashland property (2), Mount Cuba Center (2), and one box in Kent County on a private farm. As part of our study, we put small, aluminum, uniquely numbered leg bands from the USGS Bird Banding Lab (BBL) on each kestrel, both chicks and adults. This helps us, and other researchers, know about the age, movement/migration, disbursement (leaving the area they were banded), nesting success, and lots of other data any time a kestrel is recovered or re-sighted with its aluminum USGS leg band. We banded chicks at 6 locations, with the UD box failing to complete incubation. In total, this season, we banded 36 birds - 29 chicks (16 females and 13 males), and 7 adult females.

New this year, we've started using colored leg bands, also known as "auxiliary markers," to help us better identify our kestrels from afar. We still don't understand much about the kestrel's decline here in Delaware or across the country, and this small species is a challenge to put tracking devices on due to their size. In the past, we contributed feather samples to the Full Cycle Phenology project (https://fullcyclephenology.com), which was using DNA samples to create a "geneoscape," or genetic map of North America, in order to identify specific genetic regions for kestrels. Check out the published findings at the above website!



Female chick "001" showing off the first colored band of our study. Look for these large yellow and black bands on the right leg of kestrels you see and try to read the numbers on them - each band will have 3 digits, starting with 001 up to, this year (2021) 022, but will go up to 999 before we change colors... or change legs and we can start over at 0 again for another 999 bands!



Colored, numbered leg bands ready for kestrels.

For us, colored bands are a simple way to collect data without DNA sampling or expensive technology. Five of our nests this year were banded not only with the aluminum USGS leg bands on their left legs, but they received a larger, vellow and black plastic band on their right legs. These bands are large enough to be seen from afar without having to recapture the bird (with the aid of binoculars, a scope, or camera with a good telephoto lens). This means anyone who sees the bird can now report it to us. Different study areas get assigned different color combinations from the BBL, and ours are yellow bands with black numbers in a 3-digit code repeated around the band. This should make identifying kestrels that are part of our study easier, and will allow birders and community scientists alike to identify our banded kestrels. If you encounter a kestrel with one of our leg bands, you can report it to the USGS bird band lab by visiting www.pwrc.usgs.gov/ bbl/bblretrv or doing a web search for "USGS bird banding lab report a band." Follow the directions to report the species, location, and number of the band. You'll get a certificate of appreciation from the banding lab, and we will get the data you submitted! Be sure to share any additional details or notes, such as what the bird was doing when you sighted it.

Keep an eye out for these colorful bands on kestrels you see to help us better understand this Delaware endangered species!

The story of female American kestrel 1363-81549.

One of the reasons we band our kestrels is that we hope we will, or another researcher will, recapture them in the following years. Every time a bird is recaptured, it tells a little more of the story about the species, their survival rates, their migration behavior, territories, or fidelity (faithfulness) to a nesting location. In 2018, we banded an adult female incubating 5 eggs at a nest box we installed on Winterthur's gardens, off of Route 52 in northern New Castle County. Three male and two female chicks successfully fledged from this box. In 2019, she was recaptured in a nest box at Mount Cuba Center, about four miles away, again on five eggs - all of which hatched. In 2020, female 1363-81549 was recaptured at Delaware Nature Society's Ashland Nature Center property in Hockessin at a nest box dubbed "Burrow's Run," which is about 2.25 miles northeast of the Mount Cuba box. There, she produced and fledged five chicks again- four females and one male. This year, we found her in yet another nest box! She was recaptured this time only about 0.4 miles away, really just on the other side of a large treeline, again at Ashland Nature Center at a box named "Area 5." This June, we banded three male chicks and two females and are waiting for them to fledge any day now.



Female 1363-81549 in 2020 at DNS-Burrow's Run

Female 1363-81549's movement story, and nest box success, are only some of the stories we can tell. The more data we collect, we'll be able to look at nestling success and survival rates from this particular female, who herself is considered very old for a kestrel, whose average lifespan in the wild is 1-2 years. Since she was banded as an adult in 2018, we don't know exactly how old she is, but we can guess she's at least five years old this year! In years we are also able to capture the males, we can get a better idea about mate movement between our nests, too. As we dig into the data, and collect over the years, we are beginning to see what life on an annual scale looks like for kestrels nesting in Delaware.

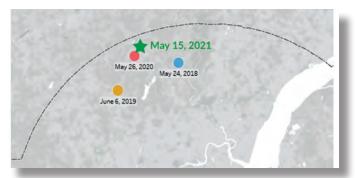
Our hope is that the color bands we're now deploying will help us collect even more data outside of nesting season on these marvelous little falcons. So keep your eyes open for birds sporting some extra jewelry and don't forget to report those band numbers! Questions about the project? Email Conservation@BrandywineZoo.org.



Female 1363-81549 in 2021 at DNS- Area 5



Female 1363-81549 in 2020 at DNS-Burrow's Run



Nest site movement of female 1363-81549 since 2018, and the dates she was captured/recaptured. The green star is this year's current nesting location at Ashland Nature Center.

Delaware Zoological Society Executive Director Message

It looks to me as though we have turned a corner. We are continuing to welcome guests back in encouraging numbers, our new evening series- Sip & Stroll—is off to a great start and we've introduced a community focused campaign for Phase 3 of Our Zoo Re-imagined we're calling "Join Our Flock". Its starting to feel a bit "normal" again here at the zoo.

Some of our early 2021 highlights:

Through the second week of June, we have seen an increase of 45% in guest visits compared to 2019 (recall, we did

not open to the public in 2020 until the middle of June). Our new on-line ticketing system has allowed us to manage capacity effectively. Guests continue to tell us they see the zoo as a fun and safe place to visit. We recently added a guest experience survey which you can take on each and every visit. You can access the survey using your mobile smart phone when you are at the zoo. You'll see signs posted around the zoo with a QR code that will put the short survey right onto your phone. Your feedback is very important to us, and we ask that you tell us about your visit.

We are hoping to return to normal programming (keeper talks, creature features, storytime, etc) within the Zoo in the coming weeks as the state continues to relax Covid-related restrictions. The staff is excited to more fully engage with our guests!

Sip & Stroll. Our new Sip & Stroll series kicked off in May. It's a new Wednesday evening event we introduced this year and its wildly popular. In fact, each of the first three were sold out! We have 4 more



Mark Shafer

planned (July 14, 28; August 4, 18—5-7PM) and encourage you to reserve your tickets in advance. We have activities for children too (the Delaware Contemporary Museum will be onhand to offer art projects on scheduled Sip nights). Bellefonte Brewing Company and Dog Fish Head are title sponsors.

Lemus & Lagers. We made the hard decision to not hold Brew at the Zoo again this year. Too many headwinds against us still, but we fully expect its return next year. Instead, we are planning an equally fun, new

event we're calling "lemurs & lagers". It will be held on Friday September 17 (4-7PM). We are finalizing details as of this writing, but we plan on having live music and entertainment, educational programming, kids activities, food and beverage. We encourage you to buy your tickets in advance. We are expecting another sell out.

Join our Flock Campaign. You can help us towards our \$5MM fundraising campaign goal for a

new Zoo South American wetlands entryway featuring Chilean flamingos, sloths and southern pudus. For \$50, you can get your name displayed on a flamingo lawn ornament and have it displayed at the Zoo.

Join your friends and neighbors by sponsoring a flamingo!







Meet the Lemurs...and more!

By Brint Spencer, Zoo Director

Four helmeted guinea fowl graze the grass of their new home, seemingly unaware of passersby. That is, until the door to the holding area opens. Their heads snap toward it in anticipation. It's time for their cohabitants, the lemurs, to sunbathe.



Well, some of them anyway.

A.J., a male black and white ruffed lemur, walks to the center of the Brandywine Zoo's new Madagascar exhibit space, stands on his back paws, raises his front arms and looks up toward the sun.

That's the pose. It's a common behavior from the sunloving species native to the island country off the coast of East Africa who now inhabits the zoo's newest habitat.

Inside the exhibit's holding area, a pair of crowned lemurs, along with four ring-tailed lemurs, navigate a series of fire hoses and branches hung like party streamers, topped off with mini swings.

Mixed Species

Mixed-species exhibits are part of the Brandywine Zoo's new master plan and the lemurs, guinea fowl and radiated tortoises who live in the Madagascar habitat will have rich social lives together. Three radiated tortoises, also an



endangered species, round out the habitat, but it's the lemurs who steal the show.

According to Mandy Fischer, who was integral in planning the exhibit and served as assistant curator, each lemur species has a similar, yet different "locomotion."

Ring-tailed lemurs travel in groups, and like to run on the ground and jump into branches to browse the leaves. Ruffed lemurs, who are very loud when vocal, often hang upside down by their back feet to reach the best fruits and leaves. Crowned lemurs are prone to grooming and are very vocal. They are paired for breeding in the hopes that the zoo will welcome a lemur baby soon.

"It has been a priority to grow a healthy crowned lemur population in human care while the fate of their wild counterparts remains grim," Fischer says. "With only 30 individual crowned lemurs within all of North America, every infant that will be born to the couple is critically important to the survival of the species as a whole."

Why Madagascar?

Fischer, who holds a special interest and background in lemurs, says the goal was to create a dynamic and beautiful habitat that will bring the story of Madagascar to Delaware.



According to the International Union for Conservation of Nature (IUCN), 95% of the 112 lemur species are threatened or endangered, making them the most endangered group of mammals on the planet.

"Madagascar is a biodiversity hotspot that has great importance to animals and humans," Fischer says. "The wild-life is disappearing at an alarming rate and we feel it has an important story to tell. We can also draw connections of deforestation, climate change and water quality back here to Delaware as we are affected by these same things."

How humans can help

Fischer says we use Madagascar's dwindling resources to power our cell phones, and for medicines, hardwoods and other products from its forests.

In Madagascar, deforestation is also a local issue; to provide fuel for cooking. However, other issues have a global reach, like the



illegal collecting of lemurs and radiated tortoises for the pet and meat trade, or deforestation for vanilla production.

Wayside boards along the new exhibit's edge explain the dire conditions for Madagascar wildlife and how humans can help, including making environmentally conscious purchases by choosing sustainably produced products.

Almost every conservation issue has a human cause. We hope the Madagascar exhibit teaches our visitors how they, too, can help protect these rare species of animals in the wild.

To see the lemurs for yourself, go to **branydwinezoo.org** and reserve your spot and ticket.

Originally in "Outdoor Delaware" online magazine, published by DNREC

Fundraising for Conservation

By Rebecca Pilkington

The Brandywine Zoo's chapter of the American Association of Zookeepers has been busy raising funds for conservation! We are a non-profit organization made up of keepers right here at the Brandywine Zoo who plan various fundraising events. The proceeds go toward conservation causes, as well as professional development for our members.

This past May, Brandywine AAZK hosted a Delaware native plant sale. The proceeds from this event benefitted an organization called Trees for You and Me. This program works to educate individuals about climate issues and supplies a forest based carbon-off-set grant to qualified entities in an effort to help polar bears and the loss of their sea ice habitat. Through

the generosity of local nurseries, the Delaware Center for Horticulture, and fellow plant-loving Delawareans, Brandywine AAZK was able to obtain plant donations to sell and make a contribution in the amount of \$424 to Trees for You and Me!

Interested in checking out an event? Do you love rhinos? How about wine? Then we have the event for you! On July 31st at 6 PM, we will be hosting a wine tasting fundraiser right here at the zoo benefitting Bowling for Rhinos. Allie Miller, a wine maker based in Napa, California, will be joining us via zoom to teach us all about wine! Join us for beverages, snacks, and raffles! Tickets are \$25/person and can be reserved by emailing bzaazk@gmail.com.



Delaware Zoological Society

1001 North Park Drive, Wilmington, DE 19802



Delaware Zoological Society supporting the BRANDYWINE ZOO





The Brandywine Zoo is managed by the Delaware Division of Parks and Recreation with the support of the Delaware Zoological Society.

The Department of Natural Resources and Environmental Control is committed to affirmative action, equal opportunity and the diversity of its work force.

> ACCREDITED BY THE **ASSOCIATION AQUARIUMS**

Please let us know when you move; don't miss special invitations and Zoo News. Email to memberships@ brandywinezoo.org or call 302-571-7788 Ext. 215.

Printed on recycled paper



Non-Profit Organization U.S. Postage Paid Wilmington, DE Permit No. 601



Upcoming Events

July 14, 18 Sip & Stroll @ Zoo 5-7pm

Aug 4, 18...... Sip & Stroll @ Zoo 5-7pm

Aug 14 Polka Dot Ron @ the Zoo 12-2pm

Sept 1 International Primate Day (virtual event) 11-11:30am

Sept 4 International Vulture Awareness Day 10am-2pm

Sept 11 and 12... Zippity Zoo Days

Sept 17 Lemurs & Lagers 4-7pm

Sept 19 Red Panda Day (virtual event) 11-11:30am

Sept 22 Members Night 5-7pm

