BRANDYWINE NEWS



Red Panda Road Trip Zoo Receives Governor's Award Zoo Kestrel Project Plans for New Exhibits Zoo AAZK Chapter Update Working in the Field in Africa A Honey of an Exhibit

BRANDYWINE

NEWS

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On the Cover

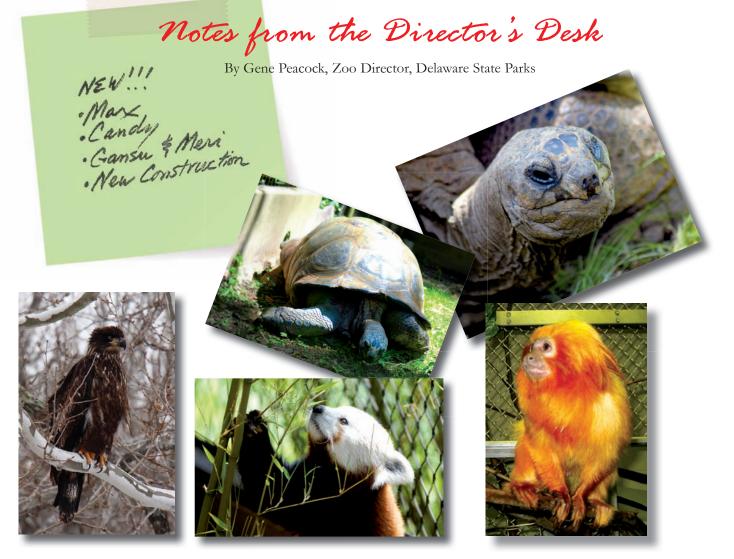
We love introducing our newest additions to our Brandywine Zoo visitors! Red Pandas are the only species of their kind in the world. It is therefore crucial to protect and preserve them and their habitat. We know how fortunate we are to work with Gansu and Meriadoc and in turn help educate the public about conservation efforts for this vulnerable species.





The only thing constant at the Brandywine Zoo is change and this summer we also had a change in our veterinary care area. Our long time zoo veterinarian Dr. Lin Klein has stepped back from her role at the zoo. She has been a vital part of the zoo for many years, providing the highest quality veterinary services and compassionate care to countless animals during that time. We are extremely grateful for all she has done for the zoo throughout the years and wish her well in all her future endeavors. Thank you, again, Dr. Klein for your countless contributions to the Brandywine Zoo.

www.brandywinezoo.org



The great weather this summer has given the Brandywine Zoo a real boost! Our attendance has been great with more and more people visiting the zoo to see the great things we have going on.

Our last newsletter had us proclaiming "Look what's new at the zoo." Well, there's a lot going on! This spring the new Bald Eagles made their debut in the aviary at the back of the zoo. They have proven to be quite popular and people are amazed at how close they can get to these majestic birds. We also have new exciting education animals like our tenrecs and kestrel and our education staff has been out in force introducing visitors to these and other small animals that are not on permanent exhibits. The tenrecs are now being used in educational programming and hopefully you may have an encounter with them somewhere on zoo grounds during your next visit. I know they have proven to be quite a popular addition to our Brandywine Zoo birthday parties!

We also had a few "unannounced" new zoo residents. First there was "Maximus", a 350 pound Aldabra Tortoise. "Max" (for short) was living with us for the summer while his exhibit at his home in Popcorn Park Zoo in New Jersey was under construction. Max had to share his exhibit here at Brandywine when he was joined in July by "Candace" our new capybara. She is a new permanent resident at the Brandywine Zoo, coming to us from the Elmwood Park Zoo in Pennsylvania.

Finally, the latest media superstars of the zoo, "Gansu" and "Meri", went on exhibit in late June. These Red Panda twin sisters from the Detroit Zoo have proven to be a huge hit. You can read more about these two cuties in this issue of the Zoo News.

You will also notice some construction underway in the middle of the zoo. We broke ground this past June on the new tamarin habitat inside zoo grounds. The contractor is working diligently on the overnight quarters and year round exhibits for our tamarin groups and they will be back out for all to see later in the fall. We'll have more to say about the tamarins in the next issue of the Zoo News but please come see us, in the meantime, to meet our new residents and see the improvements we're making.

Red Panda Road Trip

By Leah Newman & Laura Hovis, Delaware State Parks

When we were first told that we would be heading up the Red Panda training program, we could not wait to meet the girls we'd be spending so much time with! We had never worked with red pandas before, as they are a first for the Brandywine Zoo, so we got right down to business and did our research. We spent many a day designing their new habitat, figuring out what types of enrichment to offer, as well as how to keep them comfortable during those hot, humid summer days in their new home of Delaware. Once their new exhibit was complete, we



Meriadoc (left) and Gansu (right) spent many hours exploring their new exhibit at the Brandywine Zoo.

which is always hard to do, but we exchanged contact information so we could update her with pictures of the girls in their new home. Before we knew it, we were headed out on our 12 hour road trip back to Wilmington.

On the ride home, we were dressed for winter even though it was May. It was important to keep the A/C on high so that the pandas would be comfortable and not overheat, since they were traveling in their crates in the back seat of the car. We spent the drive singing, researching and quizzing each other

were given the very exciting news that we would be the lucky two keepers to make the trip to Detroit, Michigan to pick up our special girls, Meriadoc and Gansu.



With red panda souvenirs purchased, we were ready to head back to Delaware!

dad panda, were always nearby, as any excellent parents would be, but seemed completely unfazed by our visit. Gansu was the last to make an appearance. She was more reserved and polite, but equally adorable. We left the zoo on cloud nine (after purchasing some red panda souvenirs) eager to pick the girls up the next morning.

At 7:30 am, we were back in the zoo parking lot with our rented SUV. We were escorted back to the red panda exhibit where we watched their keeper pack up Meri and Gansu. They eagerly entered their crates for craisins, one of their favorite treats. The keeper said goodbye,

With only a week's notice, we rearranged our schedules and hopped on a plane to Michigan with two XL dog crates in tow. Once we landed, we drove straight to the Detroit Zoo where we got to meet the red panda family and their keeper. The first to introduce herself was Meriadoc. She was full of charm and curiosity and just plain adorable. Ta Shi and Shifu, mom and

on panda facts, and playing games to pass the time. The girls got to know us and our voices very quickly! Every time we stopped at a rest area, we offered the pandas grapes and apples in their crates to keep them hydrated. We were very impressed with how calm and comfortable they were on their first road trip ever!

When we arrived back in Delaware the girls were introduced to their new exhibit. Since they just turned one year old, they have a lot of energy and can often be seen exploring their new branches, hammocks, and live bamboo. You may even catch us doing a training session with them! They are very smart and learn new behaviors quickly. They are already pros at getting on the scale, entering their crates on cue, and practicing for voluntary hand injections for vaccines.

Red Pandas are the only species of their kind in the world. It is therefore crucial to protect and preserve them and their habitat. We know how fortunate we are to work with Gansu and Meriadoc and in turn help educate the public about conservation efforts for this vulner-



The girls rode comfortably in the back seat on our road trip back to Delaware.

able species. We love introducing our newest additions to our Brandywine Zoo visitors!

Brandywine Zoo Receives Governor's Award for Team Excellence

By Gene Peacock, Zoo Director, Delaware State Parks



As most of you probably know by now, the summer of 2013 proved to be a challenging and eventful one at the Brandywine Zoo. Several critical incidents occurred last year that stretched the resources of the zoo and tested the mettle of the staff. The most notable of these 2013 incidents was the destruction of our primate house when a large tree fell on it in July. In addition to that, we also had a tree fall into our commissary in June and a fire in the animal hospital in August. So maybe the words challenging and eventful are an understatement, but the events of those three months proved that Brandywine Zoo and its supporters can rise to any and all challenges.

We were honored with a visit from Governor Jack Markell last May 22nd as he presented the zoo staff members with the Governor's Award for Team Excellence for 2013 in recognition for their teamwork and heroic response to the incidents. This annual award recognizes an outstanding team effort among employees of the State of Delaware. What made this yearly award truly unique is that the Governor recognized zoo staff, who are State employees, as well as our employees of the Delaware Zoological Society who also helped with the animal rescue and recovery operations. Accompanying the Governor at the award ceremony were former DNREC Secretary Collin O'Mara, his successor, Secretary David Small and State Parks Director Ray Bivens.

After the awards presentation, which was covered by a number of regional media outlets, the Governor and guests toured the zoo with staff as we introduced some of our exciting new residents for the first time. Most notable was the official unveiling of our two new Bald Eagles in their new exhibit at the back of the zoo. In addition, Governor Markell made the first announcement of the impending arrival of our new Red Pandas and unveiled renderings of several new expansion projects on the horizon including Eagle Ridge and our newly proposed Rainforest Building.

We at the Brandywine Zoo were proud to have Governor Markell visit us and present such a prestigious award. It inspires all of us to continue to work together to provide the very best environments we can for all the animals we care for and an enjoyable and educational experience for all of our visitors.

The Brandywine Zoo American Kestrel Project

By Jacque Williamson, Curator of Education, Delaware State Parks

The smallest falcon in North America, the American kestrel is listed as threatened on Delaware's Endangered Species inventory.

The graph illustrates their alarming 88% population decline in the Mid-Atlantic region since 1966.

More research is necessary to determine what the causes may be, but evidence suggests that pesticide accumulation, increased predation by more urban-adaptable raptors, as well as habitat loss are the primary factors.

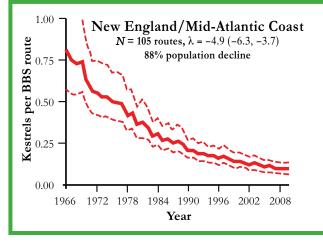
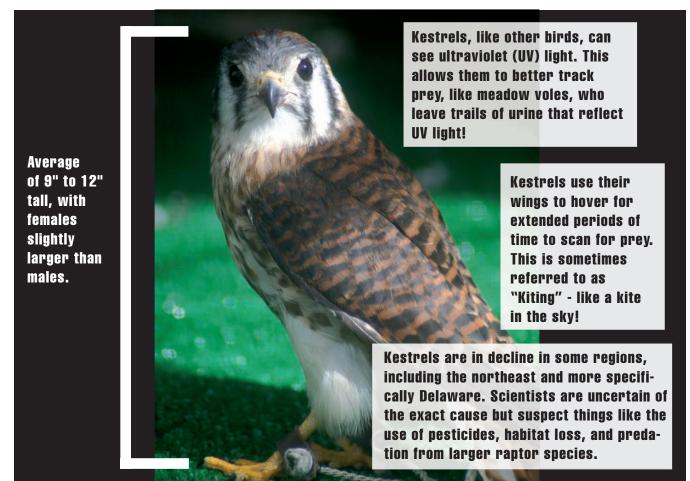


Figure 1: Kestrel Decline in Mid-Atlantic region, (Image from American Kestrel Partnership, 2014). (BSS= "Bird Breeding Survey")

This year the Brandywine Zoo began a partnership with the *American Kestrel Partnership*, a citizen science program of *The Peregrine Foundation*. Anyone can participate in this program, but the Brandywine Zoo is the first AZA institution to work with them. Participants place nest boxes in appropriate kestrel habitats, then monitor them for nesting activity to determine presence or absence of kestrels in specific areas of Delaware. The Zoo has been working this year with some of our sister State Parks to place boxes in appropriate kestrel habitat; we've placed 14 so far and plan to install more next year. This nest box program is the first step to developing an in-depth study which identifies crit-

ical nesting habitats and looks closely at declining kestrel populations in Delaware.

For further information, check out: http://akp-beta. peregrinefund.org/index.php?action=decline



BRANDYWINE -



Revisiting Our Master Plan A Peek AT Phase I - The Rainforest Building

By Bill Montgomery, Executive Director, Delaware Žoological Society



In 2007, a thoughtful Master Plan was developed to guide the foreseeable future of the Brandywine Zoo. Unfortunately, just after its publication, the recession hit and this ambitious plan was put on hold. Last summer, with the economy improving and the new zoo management team in place, the DZS board and State officials took a fresh look at the plan and were impressed with its vision, scope and sensible approach toward improving the Zoo, while enhancing animal care, our educational mission, and the overall visitor experience.

After several months of review and discussion it was agreed that the plan is still very valid and that it lays out a pragmatic roadmap for the growth of the zoo within its existing geographic footprint. It establishes an overarching conservation theme of "Water" and ultimately envisions the reorganization of the Zoo and its animal population into four distinct areas or "biomes" that illustrate the importance of water (it's abundance in some cases and dearth in others) to different habitats. These biomes will be developed in phases and include the rainforest, grasslands/desert, wetlands, and temperate forest.

Our planning team concurred with the plan's recommendation to begin with the development of a rainforest habitat and the DZS board voted unanimously to begin planning for this biome. The Division of State Parks engaged Baltimore-based architectural firm GWWO (perhaps best known locally for the striking DuPont Environmental Center on the Christina waterfront) and zoo designer, Julia Hanuliakova of Zoo Design, Inc. in Seattle (who was a key designer of the M&T Rainforest exhibit at the Buffalo Zoo) to plan and design a Rainforest Building for the Brandywine Zoo.

Their preliminary designs (seen here) were unveiled by Governor Markell during his visit in June. The building will be located along North Park Drive in the vicinity of the current llama and rhea exhibit. The design team envisions a totally immersive exhibit that will take visitors from the banks of the Brandywine to the banks of the Amazon. The exhibits will feature a wide variety of

South American species and will show both the dry and rainy seasons to illustrate the importance of water to the riverbank habitat.

In the months ahead the DZS will launch a formal capital campaign to raise the funds for the Rainforest Building. Currently, we are meeting informally with prospective major funders to gauge their support for this ambitious undertaking. However, it's not too early to make a commitment to the project. Any donations of



any size are welcomed. They will be earmarked for the Rainforest Building and held in a separate interest-bearing account until the project takes its final shape and we commence construction. Please give me a call at (302) 571-7788, Extension 206 if you'd like to discuss how you can help us build the Rainforest.

BRANDYWINE

ONEWS Collaboration Yields Amazing Results

By Donna Evernham, Delaware State Parks

The task at hand was to give a muchneeded face lift to one of our older historical exhibits. In the past this exhibit was home to a variety of animals including binturong, large cats and once, even bears. It was now slated to become the home of our two young red pandas.

At the start of the project, the Animal Care Team knew a few things: we wanted to remove the old style metal bars, we needed to offer these pandas many opportunities for climbing and resting; and we knew we would need to find a way to provide them shade and cool areas. We also wanted to focus on an exhibit that was pleasing to the eye. Our Wilmington State Parks (WSP) maintenance crew, volunteers, local business partners and the entire zoo staff proved invaluable during this process to achieve all of these goals.

Removing the metal bars was not a huge challenge for our crew, a little elbow grease and saws of all kinds did the trick. The challenge was ensuring the structural integrity of the roof and sides without the bars. The solution was four large metal columns we added to the exhibit. As soon as the columns started being placed the animal care team began brain storming ways to use the columns as anchor points for our large tree pieces. We knew we needed to get these large and very heavy tree pieces into the exhibit so we could begin to put the puzzle of the red pandas climbing structure together.

That was definitely an "All hands on deck!" day; calling upon our education team and all animal keepers; we moved our tree pieces in. Imagine a pile of large trees on the ground that we wanted suspended in the air! I remember many talks with our WSP maintenance crew that started with; "You want to put that heavy tree how high in the air?" After some head shaking and "It can't be done!" by all of us, we went into more brainstorming together. Then came an ingenious idea from one of our maintenance crew that worked and met all of our criteria. We welded metal pegs on the columns, drilled large holes into the ends of our tree pieces and slipped them onto the pegs secured with metal pins.

There we were with bars gone – check. High climbing options for our pandas - check. Now onto placing the zoo mesh (a very common netting used in modern zoo design) to keep the pandas secure while being more attractive than typical metal wire or fencing. We were getting close! The next goal was to make the rest of the exhibit aesthetically pleasing. Rope was the fix

> for that. Our animal care team, and volunteers from Bank of America and elsewhere worked together to use rope in creative ways to hide all of the metal pegs and cotter pins that were keeping our trees in the air. The results again met our needs.

The next piece came together when we partnered with John Kohler, owner/operator of CC Bamboo in Malvern Pa. We reached out to him to see if he could supply us with fresh bamboo all year for our pandas (the main staple in their diet.) His enthusiasm to help Brandywine Zoo and his generosity were overwhelming! He was so excited to be part of what we were doing. He has not

only been feeding our girls since they arrived with high quality bamboo, but he has also given us 200+ large bamboo canes. The animal care team

> used this material to fashion several " bamboo rafts" that have been placed on the exhibit roof to offer shade to the pandas. We also used the canes to make a hammock for them.

The final challenge was to ensure that we were offering the red pandas a comfortable habitat. We knew we needed to add air conditioning into to an area towards the back of

the exhibit. Water misters and roof fans were added to offer them many options for keeping cool during our long humid summer days in Wilmington.

Whenever someone compliments this exhibit renovation, someone from our team will explain how it took the physical effort and ideas from so many people to make it a success! I hope our new panda design serves as a constant reminder for all of us about what a small zoo with older structures is capable of doing, if we all work together and encourage ideas from everyone.

Spotlight On : COD DANDAS By: Frances Borgers, Zoo Naturalist, Delaware State Parks

On May 21 the Brandywine Zoo welcomed young Red Panda sisters (Gansu and Meriadoc). Born June 27, 2013 at the Detroit Zoo.

> Red Panda diets consist primarily of bamboo leaves and young shoots. Leaves, fruits, insects, and flowers are also eaten.



A Red Panda's colors might seem bright to us, but they provide **camouflage** among the red moss and white lichen in the Himalayan Mountains of Nepal and China.

A Chinese name for the red panda is **"HUNHO,"** which in English means Panda comes from the Nepalese word 'ponya' or "eater of bamboo."

a boney projection off the anda's wrist called a false thum? helps them to eat bamboo.

A long tail and strong sharp claws help to make Red Pandas excellent climbers.

a Shower of Support

Bill Montgomery, Executive Director, Delaware Zoological Society

Mother Nature may have dealt us a few challenges last year, but 2014 brought us a much needed shower of support for the Brandywine Zoo! Here are a few highlights:

- **Bloomberg**, the respected media, data and financial software company, headquartered in New York City, became a Corporate Member of the zoo earlier this summer. Bloomberg maintains a small office in downtown Wilmington, too. We welcome all Bloomberg associates to the Brandywine Zoo family.
- We received a generous donation of \$5,000 in return for the naming rights for our juvenile bald eagle from the William Oscar Lynch, V and Stacey Lynn Miller Charitable Gift Trust. Thanks to their generosity, our younger eagle is now named Saphira.
- Our joint application with the Friends of Wilmington Parks resulted in a \$2,500 grant from the **Wilmington Flower Market, Inc**. This grant allows the Zoo and Wilmington State Parks to provide scholarships for Title 1 schools which might not be able to attend our respective education programs without this critical financial support.
- The Wilmington West Rotary Club donated approximately \$4,300 in educational materials, kestrel husbandry supplies, and scientific equip-

ment (including motion-sensing cameras, GPS units and nesting box mounting hardware) for the Zoo's new kestrel conservation field research project.

- The Zoo received two other critical donations for the kestrel project. The American Kestrel Partnership provided 22 nesting boxes valued at \$1,100 and we received another \$1,740 grant from the Fresno Chaffee Zoo Wildlife Conservation Fund for additional motion-sensing "bird cams" for nesting box monitoring.
- The DNREC Community Involvement Advisory Council recommended that the Zoo receive a total of \$6,800 for Title 1 school scholarships from the State's **2014 Community Environmental Project Fund**. Pending the approval of the DNREC Secretary, we will receive \$3,400 for on-site Discovery Tours and \$3,400 for off-site Traveling Zoo presentations.
- Just after a team of **RBC** volunteers joined us for World Oceans Day, we received an additional surprise; an unsolicited donation of \$1,000!

We extend our sincere thanks and express our grateful appreciation for the generous contributions of all these valued partners.



EDZOOCATION Go a Little Wild at the Zoo!

BRANDYWINE

		SEPT	EMBER 2	014		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Keeper Talks & Close Encounters Weekends in SEPTEMBER Check Calendar Online For Times www.brandywinezoo.org	Labor Day 1	2	3	Story Time (All ages espe- cially the young) 10:30am4	Zoo Kids 5 10:00am to10:30am	Zippity Zoo Days 6 10:00am to 5:00pm
Zippity Zoo Days 7 10:00am to 3:30pm	8	Zoo Kids 9 10:00am to10:30am	Zoo Yoga 10 Mini-Mountains 9:30am to 10:15am	Story Time 11 (All ages espe- cially the young) 10:30am	12	Zoo Yoga: 13 OM'ing Otters 9:15am to 10:15am Zoo Tales 10:30am
14 Reptile Shows Weekends in SEPTEMBER 2:00pm	15	Zoo Kids 10:00am to10:30am	Zoo Yoga 17 Mini-Mountains 9:30am to 10:15am	Story Time 18 (All ages espe- cially the young) 10:30am	Zoo Kids 10:00am to10:30am	Zoo Yoga: 20 OM'ing Otters 9:15am to 10:15am Intl Red Panda Day 10:00am to 1:00pm
21	22	Zoo Kids 23 10:00am to10:30am	Zoo Yoga 24 Mini-Mountains 9:30am to 10:15am	Story Time 25 (All ages espe- cially the young) 10:30am	Erew at the Zoo 5:30pm to 9:00pm	Zoo Yoga: 27 OM'ing Otters 9:15am to 10:15am Zoo Fiesta 12:30pm to 3:30pm
	29	Zoo Kids 30 10:00am to10:30am				Zoo Tales 10:30am, 1:00pm, 3:00pm

OCTOBER 2014

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Zoo Yoga 1 Mini-Mountains 9:30am to10:15am	2	Zoo Kids 3 10:00am 10:30am Teacher Open Hs 5:00pm to 8:00pm	Zoo Tales 4 at 10:30am Zoo Yoga: OM'ing Otters 9:15am to 10:15am
		6	Zoo Kids 7 10:00am to10:30am	Zoo Yoga 8 Mini-Mountains 9:30am to10:15am	9	10	Zoo Tales 11 at 10:30am Zoo Yoga: OM'ing Otters 9:15am to 10:15am
Clo	eper Talks & 22 se Encounters sekends in SEPTEMBER Calendar Online For Times w.brandywinezoo.org	Explorer's 13 Zoo Camp 8:30am to 4:00pm	Zoo Kids 10:00am to10:30am	Zoo Yoga 15 Mini-Mountains 9:30am to10:15am	16	Zoo Kids 10:00am to10:30am	Zoo Tales 18 at 10:30am Girl Scout Workshop 9:30am to 12:30pm
	Zoo Yoga: 19 OM'ing Otters 9:15am to 10:15am	20	Zoo Kids 10:00am to10:30am	Zoo Yoga 22 Mini-Mountains 9:30am to10:15am		24	Zoo Tales 25 at 10:30am Zoo Yoga: OM'ing Otters 9:15am to 10:15am
	26	27	Zoo Kids 10:00am to10:30am	Zoo Yoga 29 Mini-Mountains 9:30am to10:15am	30	Boo at the Zoo 5:00pm to 7:30pm	Friday & Saturday

Questions? For a complete listing of our programs and events, visit our website at www.brandywinezoo.org, Calendar of Events. If you have any questions please email our Education Department at DNREC_Parks_ZooPrograms@state.de.us.

and a state

BRANDYWINE EDZOOCATION Go a Little Wild at the Zoo!

NOVEMBER 2014						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						Boo at the Zoo 1 5:00pm to 7:30pm
	3	Zoo Kids 4 10:00am to10:30am	Zoo Yoga 5 Mini-Mountains 9:30am to 10:15am	6	Zoo Kids 10:00am to10:30am	Star Wars Day Members Brkfst 8:30am to 9:45am Public Photos 12:00pm to 3:00pm
Zoo Yoga: OM'ing Otters 9:15am to 10:15am	9 10	Zoo Kids 11 10:00am to10:30am Veterans Day Camp 8:30am to 4:00pm	12		14	Scout Day 15 9:00am to 12:00pm Volunteer Open Hs 2:00pm to 3:00pm
Zoo Yoga: 1 OM'ing Otters 9:15am to 10:15am	6 17	Zoo Kids 10:00am to10:30am		20	Zoo Kids 10:00am to10:30am	Girl Scout 22 Workshop 9:30am to 12:30pm Career Workshop 1:30pm to 3:30pm
23	3 24	Zoo Kids 25 10:00am to10:30am	26	27 Thanksgiving	28	29



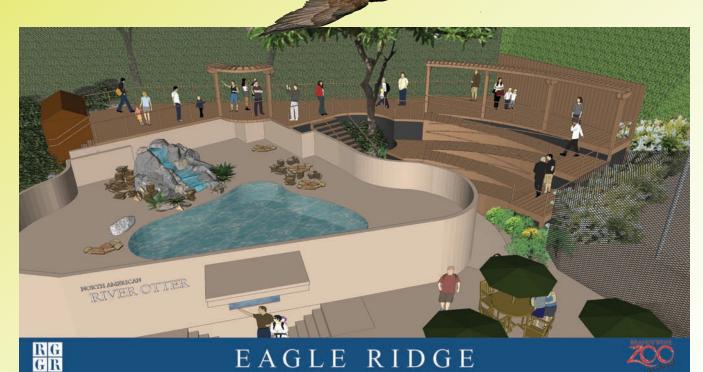
Questions? For a complete listing of our programs and events, visit our website at www.brandywinezoo.org, Calendar of Events. If you have any questions please email our Education Department at DNREC_Parks_ZooPrograms@state.de.us.

Eagle Ridge=Greater Accessibility By Bill Montgomery, Executive Director, Delaware Zoological Society

We call the area where our recently acquired bald eagles are exhibited "Eagle Ridge." Their aviary is located at the back end of the zoo just above the adjacent river otter exhibit. Unfortunately, due to the steeply sloping terrain, neither of these exhibits are fully handicap accessible, which deprives our visitors with mobility challenges of the opportunity to view these majestic national birds up close.

To remedy this problem, architect Bob Grove, the board treasurer of the Delaware Zoological Society, has designed an attractive, accessible viewing platform and gently sloping walkway for Eagle Ridge. Bob donated his design services at absolutely no cost to the Division of State Parks or the Zoological Society. Then, five legislators; State Representatives Gerald L. Brady, Stephanie T. Bolden and Charles Potter and two State Senators, Harris B. McDowell, III and Robert I. Marshall stepped forward to secure a total of \$100,000 in construction funds for the project.

Pending the successful completion of all permitting and regulatory requirements and the project bid process, we hope to break ground later this year. The goal is to complete construction by the Spring to provide all of our visitors with an accessible, new viewing platform for enjoying our bald eagles and their neighbors, our river otters. Our heartfelt thanks go out to Bob Grove and our five legislative supporters for all their assistance with Eagle Ridge.



Brandywine Zoo AAZK Chapter Update

By Sharon Smith, Animal Keeper, Delaware State Parks, President BZAAZK

The mission of The American Association of Zoo Keepers (AAZK) is to advance excellence in the animal keeping profession, foster effective communication beneficial to animal care, support deserving conservation projects, and promote the preservation of our natural resources and animal life.



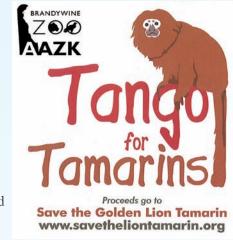
The keepers of the Brandywine Zoo have been an affiliated AAZK chapter for a year now and we are so proud to be a part of this wonderful organization.

The past year has flown by but it has been super fun, exciting, and a great learning experience. We paired up with a few

businesses in the area to host several fund raisers, including a Family Night at Friendly's Restaurant and a coupon dining experience at Applebee's. Our biggest fundraiser was our **'Bowling For Rhinos'** event last April. We were able to donate \$2030 to the Bowling For Rhinos organization, thanks to our friends, families and the members of the community who participated and supported this great cause. We look forward to next years' bowling event and know that it will be even bigger. We also hosted some great educational seminars here at the zoo, featuring some excellent presenters from the local community. These included Hilary Taylor, Director of the Delaware Wildlife Rehabilitators Association, Bear Chapter and Dr. Erica Miller, DVM who is trained in international disaster response and is the staff veterinarian here at the Brandywine Zoo. Keep an eye out for more stimulating educational seminars in the year ahead.

Our most recent event was **'Tango for Tamarins'**. This event featured dancers from tango studios from the

tri-state area giving demonstrations and beginner lessons. The event was held in August at the Blue Ball Barn in Wilmington. Proceeds from this event went go to Golden Lion Tamarin conservation and our professional development fund.



With your help we are now helping numerous conservations efforts both locally and globally. We invite you check to us out on Facebook at: https://www.facebook.com/ BZAAZK for information about upcoming events, fun animal facts, and updates, photos or videos of the Brandywine Zoo's animals.



The Delaware 87ers professional basketball team unveiled their new team mascot, Caesar the Fox, in a special ceremony at the zoo on Thursday, August 21st. Caesar signifies both Delaware's revered patriot and signer of the Declaration of Independence, Caesar Rodney and our official State wildlife animal, the grey fox. The 87ers Chief Operating Officer, Larry Meli and President, Aaron Moszer were on hand to help us "Hail Caesar!" We look forward to many more zoo visits from Caesar and the Sevens.

The Giving Tree for the Animals

By Sharon Smith, Zoo Keeper, Delaware State Parks

Have you ever wondered what many of the Zoo animals do throughout their day? Well, with the help of a good enrichment program, they spend a lot of their day using some of their natural behaviors. Enrichment is defined as a dynamic process for enhancing animal environments within the context of the animal's behavioral biology and natural history. Changes are made with goals to increase the animal's behavioral choices and drawing out their species-appropriate behaviors, thus enhancing animal welfare. As zoo keepers, this is one of the most important parts of our job for the animals in our care. With your help, we can strive to make our enrichment program here at the Zoo the best it can be.

We would like to give you the opportunity to purchase some of these enrichment "toys" for the animals. Zoo Keepers will be setting up the annual Giving Tree again this year. The tree will be decorated with ornaments that will show different items we would love to have as donations for our animals. Information on where you can purchase each toy is also on the ornament. Gift cards from your favorite

pet supply store are also appreciated. We will also have a limited number of items available in the gift shop that you can purchase and donate immediately. The Giving Tree will be decorated early in November and will remain up through the New Year. As keepers we all give 100% to ensure that all of our animals' needs are well taken care of. By purchasing the item listed on the ornament you choose, it helps us continue the great care we give to all the animals in our care.

For health and safety reasons, we require that all items be new and still in the original package.

You may want to visit the Brandywine Zoo on December 6th and attend our "Breakfast with Santa" and pick an ornament or a toy that day. Or visit the zoo any day through the New Year to pick an ornament from the tree, or purchase your item from the Gift shop which will be open daily through November

> 30th and on the first three weekends in December. You can access a list of items on the Zoo's website, www.brandywinezoo.org, or Amazon.com and look for The Zoo's wishlist http:// www.amazon.com/gp/registry/ wishlist/3B5KU9TU7FW04/ ref=topnav_lists_1.

> > Donations may also be dropped off between the hours of 10:00 am and 3:30 pm, at the Administration Building (located next to our concession stand.) If you have any ques-

tions, feel free to call us at (302) 571-7788. We thank you in advance for your help. Be sure to stop by the Brandywine Zoo and maybe you'll catch one of our animals playing with a toy you donated.



Come join us for Breakfast with Santa on Saturday, December 6th!



Up Close with Conservation: Part Z of Z Working in the field in Africa

By Jacque Williamson, Curator of Education, Delaware State Parks



In August, 2013, I had the opportunity to travel to Namibia, Africa, as a student in Miami University's Masters's Global Field Program in Zoology. The focus of this trip, 'Great Cat Conservation,' was to learn about the community-based conservation programs

working to save carnivores. Our primary focus was on the Cheetah Conservation Fund (CCF). We also had the opportunity to visit Etosha National Park for what my instructor described as 'gratuitous amounts of wildlife.'

Etosha National Park

For two days, my classmates and I visited Etosha National Park, located in Northern Namibia. Etosha is an extremely arid ecosystem, with thorny acacia trees and rugged, dry plants as far as the eye can see. The soil here is a characteristic white, which comes from the mineral content and the salt pan, a large feature of the park which, from overhead, looks like a huge dry lake. Water is a precious resource here and the park authorities main-



A bull elephant eating acacia on the edge of the Etosha Salt Pan.

tain man-made waterholes scattered across the park for the wildlife. Spottings of giraffe, zebra, ostrich and other wildlife can occur pretty much anywhere along the road as you drive through the park. However, it is around the waterholes where you have the best chances of seeing elephants, rhinos, lions, hyenas, and even leopards at the right time of day. It was only a few hours before we came to our first elephant sighting. Three bulls at a waterhole were simply hydrating and relaxing. Shortly after that, we came to another waterhole with a single bull splashing himself with mud and water. Here, we were so engrossed watching this elephant that we nearly missed two male lions sleeping in the grass only 150 yards away! Luckliy we had some great eyes and a talented instructor who knew what to look for.



A black rhino takes a drink in the darkness at Halali.

Within Etosha, there are several fenced camps, where ecotourists can set up a tent, sleep in a car, or even rent a bungalow, then walk over to a fenced viewing area at a waterhole. My classmates and I stayed at Halali, a camp about half-way through the park. We sat out at the waterhole at dusk and waited in cold, eerie silence for something to come for a drink. Not even insect swarms were heard due to it being winter, After a flock of plovers came and left quickly, we elected to sit. As two hours came and went, we became dissappointed thinking tonight might not be the night. However, about 45 minutes after sunset, now nearly pitch black, we heard a loud crashing in the distance-something was coming and didn't care who heard it! Snap and pop went the branches giving way and breaking as this animal made its way slowly through the brush. We held our breath! What could it be...it must be BIG! Then, we finally saw it stick its head out! A black rhino! How lucky, privileged, and incredible I felt to see my first-ever wild rhino.

After dinner, we returned to the waterhole to watch and again got another incredible wildlife experience, only this time we never saw the animals. Sitting quietly, staring out into the black abyss, hoping to see something appear, I instead heard an animal to my right call out in a high-pitched whooooo-woop... and then whooooooooooooooooooooooo to my left. Then, another called from directly across the waterhole from me. Hyenas! They were communicating to each other in the darkness-calling back and forth. Then, eerily, one sounding like it was directly behind us, answered whupwhooooooooooooooo! It sounded so close I found myself questioning the integrity of the fencing around us since we were on foot. I'm in a wildlife park in Africa...in the dark...on foot...with only my flashlight...surrounded by hyenas. You try not getting butterflies in your stomach! Don't worry, all was safe, but never have I felt so vulnerable. Though the hyenas never came out to drink, this was my quintessential 'African wildlife' moment, and will stick in my memory for the rest of my life.

My Conclusions

My first trip to Namibia, Africa left me both incredibly fulfilled in getting to see 'gratuitous amounts of wildlife,' but also discouraged by what sometimes seems like unsurmountable issues between people and wildlife. Conflicts revolving around land use, poaching, health and nutrition, education, and more can seem to be major roadblocks to long-term conservation success. But, so many great projects are helping to overcome these hurdles, which need both support and awareness. It's not impossible to save the cheetah (or rhino, elephant, lion, etc.), but it will take an approach similar to CCF's - one which incorporates scientific research into community capacity building and economic development, job creation, and public and environmental education for small African communities. It will take knowledge, awareness, and support of people and organizations outside of Africa, too.

I'm motivated to share the story of my trip to Namibia to help raise awareness that it's not too late to do something! I also want to share the incredible, intimate, lifeaffirming experience I had getting to see and work with some truly amazing animals. This is also why zoos exist; not everyone can take a trip to Africa-but taking a trip to your local zoo, be it Brandywine Zoo or elsewhere, can also help to instill a deep connection to animals and nature. Developing a strong sense of empathy for animals is oftentimes not on top of the list as to why people visit zoos, but it is one of the main reasons they exist. Zoos around the world support organizations like the Cheetah Conservation Fund and the work they do in the field. By visiting your local zoo, you can help to support the conservation work they do and the organizations they support. You can also directly support conservation organizations the traditional route, by donating money, or the less traditional route, by visiting them in country or even volunteering with them. And, yes, CCF accepts volunteers!

Here at the Brandywine Zoo, we support conservation programs on three continents directly. We support projects in Russia working with Amur Tigers, in Argentina working with Andean Condors, and in Brazil working with Golden Lion Tamarins. Locally, we also support **Tri-State Bird Rescue & Research and the Delaware Wildlife Rehabiliatator's Association**. You can help support conservation programs by supporting the Brandywine Zoo, or find a program that works with your favorite animals! Perhaps you like snow leopards or sun bears? Pangolins or hornbills? Do some research and find out how you can help!

For more information on field conservation programs supported by AZA zoos, visit: www.AZA.org/conservation





Honeybees

by Sharon Smith, Animal Keeper, Delaware State Parks

I hope you are all enjoyed the warm summer days and did all sorts of fun things including visiting the Brandywine Zoo. Hopefully you'll also spend some time at our "observation hive" to learn more about our bees. This hive is a working hive, but it is also dedicated to helping educate all of our zoo guests on the importance of honeybees not just in our community but all over the world. It allows you to see the inner workings of a honeybee hive and just how hard these little bees work.

Honeybees are of the genus Apis, primarily distinguished by the production and storage of honey and the construction of perennial nests from wax. Honey bees are part of a larger group known as pollinators. Technically they are considered *the biotic agent (vector) that moves pollen from the male anthers of a flower to the female stigma of a flower to accomplish fertilization or 'syngamy' of the female gamete in the ovule of the flower by the male gamete from the pollen grain.*

Honeybees are vital pollinators, but their numbers are declining around the world. There is much debate as to the causes and the phenomenon known as colony collapse disorder (ccd), but conventional pesticides are thought to play a major role in the increased mortality. Numerous toxins have already been banned in the European Union because of their adverse effects on honeybees. The White House announced new initiatives to promote the health of honeybees and other pollinators, which have suffered enormous losses in recent years. This initiative calls for research into the causes of the severe decline and the role of pesticides, and formed a "pollinator health task force" of more than 14 federal agencies, saying, "It is critical

to expand federal efforts and take new steps to reverse pollinator losses and help restore populations to healthy levels." Erich Pica, president of the environmental group

Friends of the Earth, said, "We should care because we all like and need food. About ³/₄ of everything we eat benefits from

pollination. People need to realize the impact bees have on agriculture.

It is almost impossible to produce as much honey as is being consumed."

Here are a few ways you can help:

- Don't use chemicals and pesticides to treat your lawn or garden. These can help your lawn look great, but they are actually doing the opposite to the life in your biosphere. These pesticides cause damage to the honeybees' systems.
- Buy local from farmers or markets in your community. This not only helps your neighbors and friends, but buying local means eating seasonally as well. Also, buying local from a farmer that you know means you know whether or not that food is coming from a monoculture or not.
- Remember, bees are not out to get you. Honeybees are vegetarians. They want to forage pollen and nectar from flowers up to three miles from their hive and bring that back to provide food for themselves and the beehive. Bees are busy running back and forth from the hive, and if you don't get in their way, they won't be in yours. Learn to differentiate between honeybees and wasps. Honeybees die after they sting humans (but not after they sting other insects!), wasps do not. Wasps are carnivores, so they like your lunch-meats and soda.

These are just a few things you can do to help the honeybees, but there a so many more. The internet is a huge resource of information on what you can do to help the honeybees. You can also visit the Brandywine Zoo's

> website: www.brandywinezoo.org for information and links. Or visit the Delaware Bee Keepers Association has Facebook page at www. facebook.com/DEbeekeepers.

But please, don't forget to stop by the Brandywine Zoo and visit our honey bees.

a Honey of an Exhibit

By Lynn Klein, General Curator, Delaware State Parks

If you haven't been to the zoo lately you may want to stop by and check out our new Honey Bee Observation Hive. Our new observation hive is a virtual window into the life of a Honey bee hive. It is located across from the Red Panda exhibit exactly where our old bee hive once stood.

Our good friend and "Bee Mentor", Carl Roberts of the Delaware Bee Keepers Association, designed, built and installed this little treasure. Home to 8001 bees, (That's right, I said 8000 and one!) it is a constant buzz of activity.

When you stop by the exhibit you can watch the bees bring back pollen, make honey and court the Queen! If you look very closely you can even find the queen. She is a little larger than the other bees and we have marked her with a bright green dot. It's fun to watch many of our zoo guests compete to see who can find the queen first.

The bees enter and exit the hive through a tube on the back side of the exhibit. Every once and awhile one of them will try to get in through the front but they soon realize their error and fly around to the back door. Sometimes visitors are surprised to learn that the bees fly in and out of the hive but remember, they have to leave the hive in order to collect the pollen. If they don't, they can't make the honey.

Bees are extremely important! Not just for honey production but also for pollinating flowers and crops. Without bees the world would soon be without food.

If we take good care of the bees, the bees will take good care of us!





Our heartfelt thanks go out to this dedicated team of volunteers from RBC (Royal Bank of Canada) who assisted with our World Oceans Day celebration in June. This was a perfect partnership given RBC's impressive Blue Water Project, their ten-year, global charitable commitment to help ensure drinkable, swimmable, fishable water now and for future generations.



Delaware Zoological Society

1001 North Park Drive, Wilmington, DE 19802



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

For more information about the Division or Delaware State Parks, call (302) 739-9220 or visit our web site at **www.destateparks.com**.

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



Please let us know when you move; don't miss special invitations and Zoo News. Write to Brandywine Zoo, 1001 North Park Drive, Wilmington, DE 19802 or call 302-571-7788.

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