

BRANDYWINE

ZOO NEWS



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On the Cover

Our llama (*Llama glama*) George is a twenty year old male in our herd. When he was fifteen, keepers noticed that he was having difficulty breathing. George was diagnosed with asthma. We also found out that horses can develop this as well and we were able to use an equine nebulizer to administer his medicine. He receives this treatment twice a day and has done very well.



U. S. Postal Service to Help Save Vanishing Species

September 28th, Brandywine Zoo visitors, staff and local staff of the U. S. Postal Service celebrated the unveiling of the new Save Vanishing Species Amur Tiger stamp.

Net proceeds from the sales of the Save Vanishing Species semipostal stamp will be transferred to the U.S. Fish and Wildlife Service to support the Multinational Species Conservation Funds. The funds will be divided among the African Elephant Conservation fund, Asian Elephant Conservation fund, Great Ape Conservation Fund, Rhinoceros and Tiger Conservation Fund and Marine Turtle Conservation Fund.

The Amur Tiger stamp features an illustration of a tiger cub by artist Nancy Stahl.

These stamps are available for purchase at your local branch Post Office.



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

www.brandywine-zoo.org

CONSERVATION CORNER



By Sharon Smith, Animal Keeper, Delaware State Parks

In this day and age, there are so many environmental issues to be addressed you'd think it would be easy for me to come up with a topic to write about in my Conservation Corner. The problem is, there are so many topics to choose from, that it's hard to decide which one to address.

A friend of mine went to Puerto Rico and brought me back a gift. It was a beautiful pair of owl earrings carved out of what looked like ivory. Come to find out, that is totally not the case. They were carved out of something that I hadn't heard of before. The Tagua Nut.

The tagua nut comes from palm trees that are medium-sized to tall with pinnate leaves. In its original state, the "nut" is covered with pericarp, which gets removed by various animals. The kernel is covered with a brown, flaky skin and shaped like a small avocado, roughly 4-8 cm in diameter.

While researching the material, I discovered many interesting tidbits about its history and uses. Before the use of modern plastics, tagua was a very common and popular material.

Historically, it was used to make buttons, dominos, chess pieces, netsukes (Japanese carvings), dice, and many other small items. In the 1920's, 20% of all the buttons produced in the U.S. were made of tagua, and almost 5 million dollars' worth of tagua was exported into the U.S. and Europe every year. In modern day, tagua has fallen out of use for almost all manufacturing applications, but is becoming increasingly popular among craftsman and artisans alike.

Given trade restrictions in elephant ivory as well as animal welfare concerns,

ivory palm endosperm is often used as a substitute for elephant ivory today, and traded as vegetable ivory, palm ivory, corozo or tagua. When dried out, it can be carved just like elephant ivory; it is often used for beads, buttons, figurines and jewelry, and can be dyed. More recently, palm ivory has been used in the production of bagpipes. Vegetable ivory furthers important environmental and socioeconomic goals by stimulating the local economies and microenterprises in South America, provides an alternative to cutting down rainforests for farming, and prevents elephants from being killed for the ivory in their tusks.



Over the last 15 years, villagers have invited foundations and volunteers to work with them and their children towards the ecological, cultural, and economic restoration of the region which has suffered greatly from deforestation and biological extinction. Today, they are working on a rescue plan to reverse the trends of destruction. Their handicrafts are evidence that a very important process is taking place, that problems are

being turned into solutions and that descendants of pre-Inca cultures dating back 10,000 years are proud to know that they are custodians, for generations to come, of a unique part of this planet.

In 1990, Conservation International started its first conservation-based enterprise, the Tagua Initiative®, in northwest Ecuador, based on providing economic incentives for sustainable harvesting of the tagua palm nut, *Phytelephas Equatorialis*. About 1,800 members of the Comuna Rio Santiago-Cayapas now have jobs that depend upon keeping nearby rainforest lands standing. They sustainably harvest tagua nuts from the forest floor when the cabeza containing the nuts ripens and falls. Each tree contains several cabezas and it may take three to eight years for the cabeza to fully mature. Other employment comes from the hand-crafted creation of figurines and jewelry by local artisans.

So the next time you are shopping for a unique gift, take a minute and search the web for items made out of the Tagua Nut. You will be helping conservation of our planet in so many valuable ways. As always, remember to visit www.brandywinezoo.org for other valuable ways you help with conservation.



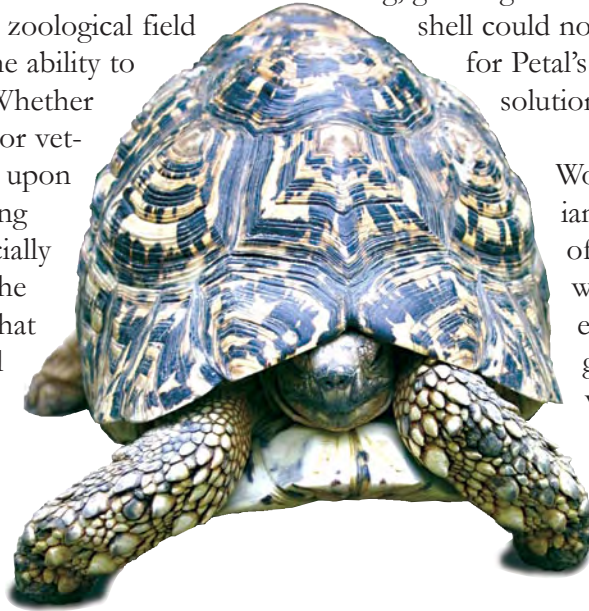
Creative Solutions

By Lynn Klein, Assistant Curator of Animals, Delaware State Parks

There are many different attributes that benefit a person who works in the zoological field not the least of which is the ability to “think outside the box”. Whether you are a keeper, manager or veterinarian you will be called upon to use every problem solving skill at your disposal, especially when it comes to solving the unique medical problems that can affect any given animal at any given time.

The Brandywine Zoo and its staff have had their share of challenging cases. One of these involved a Leopard

Tortoise (*Stigmochelys (Geochelone) pardalis*) named Petal. When Petal was a hatchling or baby tortoise, the theories on what constituted a balanced diet for tortoises were very different from what they are today. Today we know much more about the nutritional needs of all animals and so are able to keep them healthier and in turn they live longer, better lives. Because of the diet Petal received when she was young, her shell did not grow properly. Instead of growing in a dome-like shape her shell grew outward and in so doing ended up blocking the full and proper movement of her rear legs. This in turn made it impossible for her to completely lift her shell off the ground when she walked. This caused her bottom shell, or plastron, to become abraded. Left untreated she would be susceptible to infection. Unlike what many people think, the shell of a tortoise is not just a hard unfeeling home for the tortoise to hide in, it is in fact liv-



ing, growing tissue. Obviously because of this the shell could not just be cut out to make room for Petal’s legs, we needed a more creative solution.

Working with the talented veterinarians at VHUP (Veterinary Hospital of the University of Pennsylvania) we devised a “bumper” system to elevate Petal higher up off the ground. Originally these bumpers were made from a hard rubber dog toy that was cut in half. Today we use a golf ball cut in half and glued to her plastron. While Petal was healing, because it was impossible to keep a bandage on her, we would give her

daily medication soaks. This process took about two months to complete but it worked splendidly! Every once in a while Petal’s bumpers will fall off but we just glue new ones back on. During the warmer months visitors can see Petal cruising around the exhibit she shares with the other tortoises, ducks and porcupines. Even if you know to look for her bumpers you will have trouble picking her out of the crowd, Petal doesn’t let anything slow her down!

Now Petal isn’t alone in her story of overcoming a medical obstacle. Another interesting story involves our llama (*Llama glama*) George. George is a twenty

year old male llama in our herd. When he was fifteen, keepers noticed that he was having difficulty breathing especially when the temperature and or humidity were high. He was taken by van to New Bolton Center which is part of the University of Pennsylvania Vet



School. After completing radiographs and ultrasound testing the veterinarians were able to diagnose George with asthma. We also found out that horses can develop this as well and we were able to use an equine nebulizer to administer his medicine.



This device looks like a plastic liter soda bottle with an attached cylinder that the inhaler fits onto. The nebulizer fits over George's muzzle so when the inhaler's plunger is depressed the medicine enters the chamber and George breaths it in. He receives this treatment twice a day and has done very well since he was started on it even through the hot humid days of our Wilmington summers.

Last but not least, let me tell you about our Sandhill crane (*Grus canadensis*)

Sandy. When Sandy was a juvenile crane living in New England he missed the migration flight with his flock and as a result he was orphaned. He was taken to a rescue facility and while he was there he unfortunately developed a foot issue. He developed a type of bumble foot, a fairly common ailment with avian species. The rescue organization asked Tri-State Bird Rescue for help with Sandy and they stepped in with their medical expertise. Tri-State then placed him here at the Brandywine Zoo. We already had one Sandhill crane who we felt needed a friend. Sandy



arrived and did very well for a couple of years. However, because of his bumble foot he had built up scare tissue on both of his feet. We were able to manage the problem with medication but we wanted to find an even better solution if possible. Again, on Sandy's behalf, Tri-State was called on to help. The vets wasted no time coming up with a solu-

tion that was both simple and brilliant! They made him a pair of shoes. The shoes are made of foam and are held in place with a bandaging material called "vet-wrap". They are light weight and water resistant. The shoes take enough pressure off the soles of Sandy's feet to enable him to walk comfortably. This is extremely important for an animal that spends a lot of time on top of two very long legs. Fortunately he does not have to wear them all

the time. The keepers can always tell when Sandy's feet are a little sore and that is when they scoop him up and help him put his shoes on.

I could go on and on with stories about the amazing lives of the animals in the zoo but they would never all fit in one issue. Instead, let me encourage everyone to stop by the zoo, visit the animals and when you see a keeper or other staff member going about their daily routine don't hesitate to ask them about the animals. Take it from me, the animals are our favorite subject and we love to talk about them!

Zoo Camp 2012!

Zoo Camp isn't just for summer! We have a ton of Winter, Spring, SUMMER, and Fall camp fun planned for those that are Brandywine Zoo Camp fans...all just a mere click away! Visit our website at www.brandywinezoo.org for the latest camp information for 2012. Camps to choose from include: Martin Luther King Day Camp; President's Day Camp; two weeks of Spring Camp; Summer Camp running June 6-August 17; and Columbus Day Camp!



EdzOOcation Programs for Everyone 2012!

The Brandywine Zoo has a plethora of family fun planned for kids of all ages, from 18 months to 108 years! We've got something for everyone! Enjoy some unique and fun learning opportunities at one of our programs or events...something is always happening at the zoo! For more information about the various programs we offer, visit our website at www.brandywinezoo.org.



www.brandywinezoo.org

Hi there! My name is BeeZee!



“ASK the ZOO!”

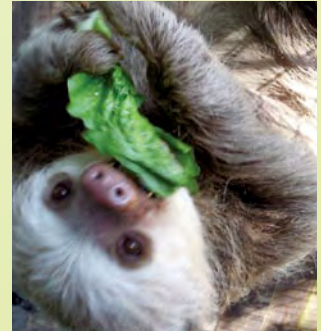
Hi there! My name is BeeZee and I'm a junior explorer here at the Brandywine Zoo. I know all kinds of facts and information about the zoo and its' inner workings. Feel free to ask me any questions you can think of about Delaware's only zoo! We've already had a few questions...

Q: Melissa, age 10, asked “What happens to the animals in winter?”

A: You can come and visit our animals even in winter! The ones that are on exhibit are adapted to live in Delaware's climate. Our keepers also do a great job of helping them stay warm by providing heat lamps, warm dens, and extra bedding. The animals that are not from a similar climate are kept indoors where we can provide a nice warm home for them all winter.

Q: Paulie, Age 5, asked “How is Zhanna doing?”

A: We love Zhanna, our new Amur tiger! She has gotten used to her new home and we have gotten used to her and her likes and dislikes! She likes chicken, goat milk as a treat, toys (boxes with treats inside), and piñatas. She dislikes; loud noises, rakes and ladders.



If YOU have a question about the zoo, you can ask the zoo by emailing one of our zoo staff at DNREC_Parks_ZooPrograms@state.de.us. It may end up being published here in Zoo News!

KID'S

Brandywine Zoo Animal Find



I Q S O T T E R D I W M
 O Q B E T Q T I G E R T
 D X G I R Y U S A P I V
 Q A D T N V M A C A W I
 T D A X A T A S F A A B
 G O R O Y M U L W B W U
 G V L U L E R R A R V G
 W J F L U O C P O O Q B
 O N A Q D K U F E N X H
 I M I N T O L E C O G N
 A A O C E T A C B O B K
 C C H X Q M C O A T I V

BINTURONG
 BOBCAT
 CAIQUE
 COATI
 CONDOR
 GOAT
 LLAMA
 MACAW
 OCELOT
 OTTER
 SERVAL
 TIGER

Talent Abounds to Welcome Zhanna!

Check out these ZOOpendous drawings submitted in celebration of our new Amur Tiger, Zhanna! Each picture was submitted by a creative and artistic young person to help us welcome Zhanna to the Brandywine Zoo. If you would like to welcome her yourself in person just visit us during one of our upcoming events or programs. For more details, please visit www.brandywinezoo.org/events.html. And make sure next time you are at the zoo you stop by to welcome Zhanna!

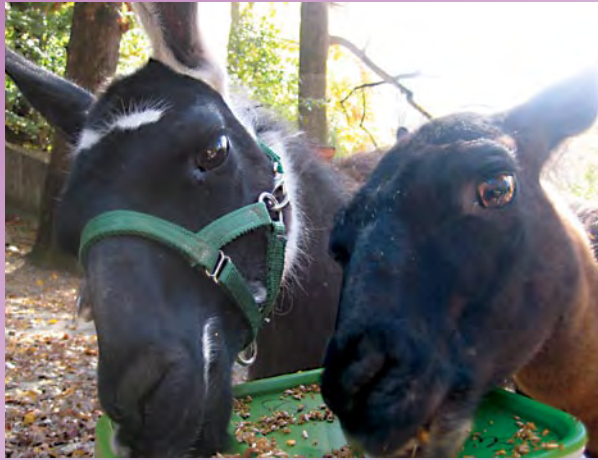


Volunteers Make our World ZOOpendous!

The Brandywine Zoo couldn't do what it does to make our zoo the small gem that it is without the help of our ZOOpendous volunteer team! Our volunteers, docents, and interns range in age from 13-80 years young! These amazing folks assist with special events; lead story times; lead tours; man discovery carts and stations; assist with traveling zoo programs; education school children; greet the public; attend a variety of training sessions, meetings, and lectures to increase their knowledge base...all for the love of the zoo! We'd like to thank them for a terrific 2011 and express to them what faith we have in their abilities to make 2012 even better! Thank you!

If you have an interest in joining the Brandywine Zoo Volunteer Team, we invite you to attend our Volunteer Open House during our Spring Event on Saturday, March 10, 1:30-3pm. You can visit our website at www.brandywinezoo.org for more information or contact Melody Hendricks at Melody.Hendricks@state.de.us.





1001 North Park Drive, Wilmington, DE 19802



Delaware State Parks
We're saving a place for you



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.

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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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Zoo Calendar

January

- 26 *Story Time at The Zoo: "I Can Help" by David Hyde Costello (All Ages) 10-10:30am
- 31 *Pint-Sized Planeteers Program: The Tortoise and the Hare (1 ½ -6 yrs) 10-11am

February

- 4 Zoo Camp Open House 9:30-11am
- 4 Open House: Summer Zoo Internships for High School Students (Ages 14-18.) 1:30-3pm.
- 4 Open House: Education Internships for College Students. (College Students) 1:30-3pm
- 9 *Story Time at The Zoo: "My Heart is like a Zoo" by Michael Hall (All Ages) 10-10:30am
- 11 *Cupid's Creatures, A Valentine Event for Everyone! (All Ages) 1-2:30pm
- 14 *Pint-Sized Planeteers Program: I Love ZOO! (1 ½-6 yrs) 10-11am
- 16 *Celebrating Africa! (All Ages) 10am-12pm
- 20 *Presidents Day Camp (Ages 4-13) 8:30am-5:30pm
- 23 *Story Time at The Zoo: "Flip Flap Fly" Phyllis Root (All Ages) 10-10:30am
- 28 *Pint-Sized Planeteers Program: Llama-rama (1 ½-6 yrs) 10-11am

March

- 10 & 11 Brandywine Zoo's SPRING Event! (All Ages) 10am-3:30pm
- 10 Volunteer Open House (Ages 18-Seniors) 1:30-3pm
- 17 *Scout Day at Brandywine Zoo (Boy & Girl Scouts) 9am-12pm
- 19-23 *Spring Zoo Camp 2012 (Ages 4-13) 8:30-5:30pm

*program fee and/or registration required. Members MAY be free for some programs/events. For detailed information visit our website at www.brandywinezoo.org.



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