





Guardian of the Rainforest Badge

Welcome to your Guardian of the Rainforest badge kit! You will have fun learning about rainforests and what you can do to help save the endangered animals that live there, focusing on the orangutan. Orangutans live in Indonesia, on the islands of Borneo and Sumatra. Orangutans are the world's second largest primates and are the largest completely arboreal animal, which means they live in trees! They are strong, slow, careful climbers.

There are three parts to the badge. Part 1 gives you some background into why this badge is focusing on the orangutan and how it became endangered due to the planting of palm oil plantations. In Part 2, you will become rainforest explorers as you learn more about the forest itself and the animals that live there. You will become an official Guardian of the Rainforest in Part 3 and teach others about the palm oil issue and how they can help save orangutans!

Attached, you will find the following information:

- Sumatran Orangutan Fact Sheet
- Palm Oil Fact Sheet
- Conservation in the Field



We have collaborated with Girl Scouts, Madison Vorva and Rhiannon Tomtishen, on this badge. In 2007, Madison and Rhiannon earned their Girl Scout Bronze Award by raising awareness about the endangered orangutan and their rapidly diminishing rainforest habitat in Indonesia and Malaysia. You can read more about them in Activity Part 1. They would like to share the following with you - We'd like to pass on a quote from our hero, Dr. Jane Goodall, "If you really want something, and really work hard, and take advantage of opportunities, and never give up, you will find a way". Have fun!



Activity Part 1:

- 1. Research the following websites to learn more about why orangutans are endangered.
 - o www.unless.philadelphiazoo.org
 - o www.theproblemwithpalmoil.org
 - o www.tft-forests.org/product-groups/pages/?p=6277
 - o Read below about Madison and Rhiannon and check out www.projectorangs.org. Also, watch their video: http://www.youtube.com/watch?v=15C5-ziTCIs.

After learning that the Girl Scout Cookies they had sold for so many years contained palm oil, an ingredient that results in rainforest destruction and human rights abuses, Madison and Rhiannon launched a variety of campaigns to convince the Girl Scouts USA (GSUSA) to make Girl Scout cookies rainforest-safe. Now seniors in High School and founders of Project ORANGS (Orangutans Really Appreciate and Need Girl Scouts), Madison and Rhiannon have entered a dialogue with Girl Scouts USA and are committed to ensuring that Girl Scout Cookies are rainforest safe. In the fall of 2011, GSUSA announced their new palm oil policy which is a step in the right direction, and the first policy change in the Girl Scouts' history driven directly by girls.

After a recent trip to Colombia to learn about the human rights abuses occurring as a result of palm oil corporations, the girls have made it their mission to not only advocate for the rainforests that are destroyed for palm oil, but for the people whose livelihoods rely on this invaluable resource.

As youth, Madison and Rhiannon have fought to make their voices heard and to show other youth the tremendous power they have to make a difference. It is their belief that with confidence, courage, passion, perseverance and leadership, any person, regardless of their age, can create change within their local and international communities. Their mission is to show consumers that their daily purchasing decisions have global impacts. In 2012, they were honored by the United Nations as "North American Forest Heroes" for their work to promote the need for deforestation-free palm oil.

The girls have been working for the past year with The Forest Trust (TFT). TFT is a global non-profit organization that helps companies and communities deliver Responsible Products. They act on the ground in forests, farms and factories to help create products that respect the environment and improve people's lives.

- 2. Supermarket Adventure: Part 1 (pg. 2 of the Activity Packet)
 - a. Make a list of products you find at the grocery store that contain palm oil. Look at the ingredients and search for the various words for palm oil.



Activity Part 2:

- 1. Supermarket Adventure: Part 2 (pg. 2 of the Activity Packet)
 - a. Refer to your list of products from Activity Part 1. Visit Philadelphia Zoo's Unless Campaign website to view the palm oil wallet card: http://www.philadelphiazoo.org/Unless/palmoilwalletcard.pdf and see if your favorite companies are taking a first step towards rainforest-friendly palm oil sources. Rainforest-friendly palm oil is grown on land that has already been cleared rather than destroying additional rainforest.
- 2. What makes a rainforest? Use pages 3 and 4 of the Activity Packet to learn about the amount of rainfall in a tropical rainforest and the layers of the rainforest.
- 3. What comes from the rainforest? Use pages 5-8 of the Activity Packet to discover what products come from the rainforest. These are things you might use every day! Look in your home to see if you have any of these items. (pages 5 and 7 of the Activity Packet for ages 5-8 and pages 6 and 8 for age 8 and up)
- 4. Where in the world are tropical rainforests found? Use the map on page 9 of the Activity Packet to find out!
- 5. Use the field guide (pages 10-12 of the Activity Packet) to research an endangered animal from Indonesia. Look up where the animal is found, what it eats, where in the rainforest they live, and learn some fun facts about the animals.

Activity Part 3: Do 3 of the 5 activities below

- 1. Educate 5 friends and 3 adults/teachers about the palm oil issue.
- 2. Visit the Philadelphia Zoo's orangutan website and take the "Orangutan Oath": www.unless.philadelphiazoo.org
- 3. Send "Leaves of Gratitude" to companies that have taken a first step towards rainforest-friendly palm oil and thank them for helping to save orangutans. (pg. 13 of the Activity Packet)
- 4. Use the attached blank field guide as a model to make your own and research an animal that lives in the rainforest. (pg. 12 of the Activity Packet)
- 5. Zookeepers are Guardians of the Rainforest too! Read below to learn more about what zookeepers across the country are doing to help endangered species such as the Sumatran Rhino and learn how you can help too.

Orangutans have been your animal ambassador to help you learn about deforestation, but you know by now that their habitat supports an entire ecosystem of critters. From the tiniest insects to the world's rarest rhinoceros, Sumatra and Borneo (and other parts of Southeast Asia) have some



of the richest biodiversity in the world. Raising awareness about palm oil and changing peoples' product selection is an important way to start to change business practices and save rainforest, but did you know that zookeepers across North America have been going **bowling** to make a difference?

Zookeepers have an interesting job because they not only care for the animals in the zoo, but their goal is also to educate zoo visitors about protecting animals in the wild. In 1990, keepers took their motivation for conservation to a new level by starting a fundraising bowl-a-thon called "Bowling for Rhinos." The event is sponsored by the American Association of Zoo Keepers or "AAZK" and involves over 50 different local AAZK Chapters across North America. Since the beginning, they have raised over 4 million dollars! The money raised has supported land preservation and poaching prevention for the five different species of rhinos in the world. (Southern White Rhinos, Black Rhinos, Greater One-Horned Rhinos, Javan Rhinos, and Sumatran Rhinos.) The rarest of these is the Sumatran Rhino- a hairy, little rhino that shares some of the neighboring habitat to orangutans. Sumatran Rhino numbers have declined more than 50% over the last 15 years leaving a small population of only 200 individuals. Without protection from habitat loss and poachers, the Sumatran Rhino is in the same danger of extinction as their ape colleagues.

However, the message to take from the zookeepers taking part in Bowling for Rhinos and especially from Madison and Rhiannon is that just a few thoughtful people can make a difference. You do what you can and it all begins with you!

If you'd like to find a local Bowling for Rhinos event or plan your own conservation fundraiser, visit www.aazk.org. The Greater Philadelphia Chapter of AAZK holds their event in August and celebrates Rhino Month every May- come join us!

Congratulations! Now it's time to decorate your puzzle piece! See page 14 of the Activity Packet and follow the directions there. Email <u>overnightsandscouts@phillyzoo.org</u> once you complete the activities in Parts 1, 2, and 3. We will mail you a **Guardian of the Rainforest patch** and look forward to seeing your puzzle piece!



Sumatran Orangutan Fact Sheet

Sumatran Orangutan Pongo abelli

Sumatran orangutans are one of the great apes and among the largest of all living primates. They are also among the most endangered - scientists estimated that there were only 3500 surviving in the wild in 2002, and numbers continue to drop at an alarming rate.

Orangutans are covered with a sparse, coarse, long, shaggy hair which, in adults, can be maroon or dark reddish brown to burnt sienna in color. An adult orangutan's face is mostly bare, with dark skin. Sumatran orangutans tend to be slimmer than Bornean orangutans, with longer faces, and fur usually longer and lighter.

Geographic Range

They live in the tropical rainforests on the Indonesian island of Sumatra.



Longevity

In the wild, orangutans may live up to 40 years in the wild and over 50 years in zoos, longer in rare instances. Guarina and Guas, a pair of orangutans at the Philadelphia Zoo, lived to be about 57 and 58 years old, respectively. This pair still holds the longevity record for orangutans.

Reproduction

Care of young orangutans is given exclusively by the mother. Gestation is about 9 months and the infant nurses and stays with the mother for 4-5 years. As the infant grows, it becomes less and less dependent on its mother. Because of the heavy investment in each infant, female Sumatran orangutans may go 7-9 years between offspring.

Size

Male orangutans are much larger than females. Males measure, on average, 3.18 ft. and females average 2.56 ft. (780 mm). Males weigh, on average, 192 lbs. (87 kg); females weigh an average of 81.6 lbs. (37 kg).



Diet

In the wild, orangutans consume mainly fruit; the type is dictated by the season and the area the animals inhabit. They will gorge on a favored fruit while it's in season but move to less desirable foods when no fruit is available. At the Zoo, orangutans are offered a base diet of primate biscuit. Several different types of primate biscuit are included in the base diet. The enrichment portion includes a variety of familiar fruits as well as seasonally available Asian fruits similar to those consumed in the wild. Vegetables, nuts, leafy greens and seasonal browse are also included in the diet.

Behavior

Wild orangutans are primarily arboreal—they spend most of their time high in the trees. They are the only members of the great ape family to spend most of their time off the ground. Their legs are short, but they have long, muscular arms to help them climb. They use their hands and feet to climb, grasping and swaying their way between trees. Orangutans can also walk on two feet, but locomotion on the ground is usually quadrupedal (on four feet). They build a nest of branches and leaves in a tree each evening and also sometimes during the day.

Orangutans are the most solitary of the great apes, but they exhibit a wide range of sociality across their range and may be extremely social when they do associate with other orangutans. Orangutans, like chimpanzees, have been shown to exhibit innovative behavior and social learning, as well as tool use.

Conservation Status

On the IUCN Red List for Threatened Species, the Sumatran orangutan is listed as Critically Endangered.

Who's Who at the Philadelphia Zoo

Tua: Female, born at Zoo Atlanta on November 4, 1992. Tua arrived at the Philadelphia Zoo on April 23, 1999. **Sugi (Sugriwa):** Male, born at the St. Louis Zoo on December 31, 1995. Sugi arrived at the Philadelphia Zoo on December 15, 2006.

Batu: Female, born on October 2, 2009 to Tua and Sugi.

Fun Facts

- The highly-intelligent orangutan is the largest tree-living mammal in the world.
- Orangutan comes from two Malay words which mean "forest man"

Sources: 1)Wich, SA; Singleton, I; Utami-Atmoko, SS; Geurts, ML; Rijksen, HD. van Schaik, CP. 2003. The status of the Sumatran orangutan Pongo abelli: an update. Oryx 37(1). 2)Cawthon Lang KA. 2005. Primate Factsheets: Orangutan (Pongo) Taxonomy, Morphology, & Ecology. [2010 Sept 03]. pin.primate.wisc.edu/factsheets/entry/orangutan. 3)Bastian ML, Zweifel N, Vogel ER, Wich SA, van Schaik, C.P. Diet traditions in wild orangutans. 2010. Am J PhysAnthropol. 4)Bastian ML. 2008. Effects of a riverine dispersal barrier on cultural similarity in wild Bornean orangutans (Pongo pygmaeus wurmbii) [dissertation]. [Durham (NC)]: Duke U. 5)van Noordwijk MA,van Schaik CP. 2005. Development of ecological competence in Sumatran orangutans. Am J Phys Anthropol. 6)IUCN 2010. IUCN Red List of Threatened Species. V 2010.3. . Downloaded 26 Oct 2010



Palm Oil Fact Sheet

Palm oil is the world's most widely produced and cheapest vegetable oil and is found in a wide array of common products including cookies, crackers, breakfast cereals, chips, chocolate and ice cream. Palm oil is also an ingredient in many other items like shampoo, cosmetics, lipstick and lotion.



Palm oil is produced by pressing the fruit and seed kernels of the oil palm tree (*Elaeis guineensis*). Native to West Africa, this tree is grown and processed across Borneo (Indonesia and Malaysia) and Sumatra. Oil palm plantations replace rainforests that are full of biodiversity and home to species such as pygmy elephants, clouded leopards, Sumatran rhinos, sun bears, and orangutans. Experts are concerned that palm oil is taking up important habitat for wildlife.



Connection to Orangutans

Palm oil cultivation is currently one of the leading causes of deforestation worldwide and with the rapid destruction of ecologically-complex rainforests in Sumatra and Borneo, numerous species, including orangutans, are facing extinction in the wild. The harvested area of palm oil in Southeast Asia has tripled in just a decade. Deforestation for palm oil plantations in Indonesia averages about 300,000 hectares-about half the size of Delaware-each year. (Union of Concerned Scientists, June 2011)

Sumatra and Borneo are the only two islands in the world that are home to wild orangutans. Sumatran orangutans are currently listed as one of the top 25 most endangered primates in the world with approximately 6,660 living in the wild. The number of Bornean orangutans has plummeted over the past two decades from 300,000 in 1990 to only 55,000 today. If the nature of palm oil production does not change, it is estimated that wild orangutans could become extinct in as few as 25 years.



Solutions

Although some environmental groups advocate the boycotting of palm oil as a solution to this wildlife crisis, the Philadelphia Zoo and numerous other leading conservation organizations believe that promoting the use of palm oil with strong environmental, social, and forest-protection standards is a more effective solution. Advocating for the use of rainforest-friendly palm oil promotes a balance between species conservation and the economic needs of palm oil producing countries.

Consumer pressure is a strong motivator for companies to change their practices in a positive manner. Many companies today are beginning to take steps towards producing goods in ways that are less damaging to the earth. With over 40 different names for palm oil, it is difficult for the average consumer to determine if a product contains palm oil and what kind of footprint that palm oil has. The Philadelphia Zoo is helping by getting the word out about the issue and encouraging companies to commit to using deforestation-free palm oil that follows Responsible Sourcing Guidelines so that the palm oil in products you buy is produced without being in conflict with orangutans.



Conservation in the Field

With virtually no suitable habitat left and depleted food sources, all wild orangutan populations living outside of protected areas are now at risk of extinction. Activities during the Zoo's "Year of the Orangutan Conservation Initiative" made a significant contribution towards saving this species. In addition to compelling exhibition of orangutans at the Zoo and public education about their plight, the Zoo understands the importance of supporting field research that drives species conservation. We are proud to support field conservation efforts of the Sumatran Orangutan Conservation Program (SOCP). The SOCP is a collaborative program of the PanEco Foundation, working with the Indonesian government's Department of Forest Protection and Nature Conservation, the Foundation for a Sustainable Ecosystem and the Frankfurt Zoological Society.









*Photo Credits: Meredith Bastian, Sungai Lading Orangutan Project 2005





Orangutan Mothe<mark>r and Baby in Tr</mark>ee Photo Credit: Tine Geurts, Tuanan Orangutan Project 2003