Dear Friends and Supporters,

Happy holidays from all of us, human and orangutan, in Gunung Palung! It's hard to believe that another year has passed. We've hit many milestones this year, with both the conservation and research teams working at full tilt to ensure that our mission to protect and study the orangutans in and around Gunung Palung National Park is fulfilled. Our stories this month highlight two of the (very different!) methods that we have added to our repertoire of activities this year, one that will increase our capacity to assess the impact of our conservation work, and one that allows us to reach high into the trees to collect important orangutan nutritional data.
An especially exciting piece of news that we can share with you this month is that GPOCP has officially become a member of the UN's Great Apes Survival Partnership (GRASP). This has long been a goal of ours and we're honored to join. For more information, see the article in the sidebar below.

With 2015 all but behind us, I wish you a happy new year, and thank you for another year of support. Your donations to our orangutan research and conservation programs are invaluable. Let's make 2016 the best year yet!

Sincerely,

Cheryl Knott, Executive Director
Gunung Palung Orangutan Conservation Program (GPOCP)

Social Surveys for Orangutan Conservation

By Cassie Freund, GPOCP Program Director

One of the ongoing questions for the GP conservation team lies in how to best evaluate and measure our impact on orangutan conservation. Sometimes the effects of our activities, like wildlife crime investigations, are tangible and can be seen almost instantaneously, but our environmental education and conservation awareness programs present a challenge. How can we assess the impact of newspaper articles, radio shows, and the thousands of stickers and posters that we distribute each year, when the recipients are scattered across an enormous geographical area? This year we've tackled this challenge through a set of social surveys, administered to 200 people across Ketapang and Kayong Utara regencies. As an added bonus, we've been able to get our Bornean Orangutan Caring Scholarship (BOCS) recipients involved at every step of the process, challenging them to look at conservation in a new way.
An example of a conservation awareness campaign billboard design, created in honor of Orangutan Caring Week 2014.

Many wildlife conservation projects spread their message through billboards. GPOCP has also used this method in the past, but we haven't erected any billboards in the past few years, making it a perfect project around which to build our evaluations. The design is simple: survey 100 people in each regency near the location in which we will put up conservation awareness billboards, analyze the data to understand what types of messaging regarding orangutan and rainforest conservation are needed, design the billboards based on the information obtained from the surveys, display them for three months, and then re-survey at these locations to find out if billboards are indeed an effective method of spreading our conservation message. With this experimental design in mind, the four BOCS students interning in our office this past summer were given the task of developing and administering the survey. The results were more interesting than we expected, and uncovered some key differences between the community in Ketapang city and those living in the rural town of Teluk Batang, on the north side of Gunung Palung National Park, information that will help us to better target our conservation messaging to these two different audiences.

I'd like to share a few of the results here, to illustrate the importance of these data and the complexity of orangutan conservation. One of the things we asked people was about their knowledge of biodiversity, specifically if they could name some animals that are endemic to Kalimantan. People in Ketapang listed, on average, 2.3 animals each, and some people gave up to seven answers. In contrast, Kayong Utara residents named an average of about 1.8 animals, and the most any single person listed was three. Two of the most popular answers in each location were orangutan and proboscis monkey, but the other responses diverged widely. Ketapang residents also commonly listed hornbills and pangolins, other animals which are certainly emblematic of Borneo. Kayong Utara residents, on the other hand, listed deer (which are hunted for meat) and a certain bird species, the white-rumped shama, which is currently a popular species in the bird trade. This suggests that these groups of people have very different perspectives on the benefits of biodiversity.
biodiversity; for one group, there is significant cultural value, whereas in the latter, biodiversity is used mainly for economic gain.

Proboscis monkeys were correctly identified by many respondents as a species that is endemic to Kalimantan.

Another result that really surprised me was in response to the question, "Is it okay to keep an orangutan as a pet? Why or why not?" People in both places largely answered as we hoped they would, acknowledging that no, it is not okay. About one-third of the respondents in Ketapang supported their answer with the reasoning that orangutans are legally protected under Indonesia's wildlife conservation law. However, in Kayong Utara not a single person mentioned the legal issue. Furthermore, when respondents who answered that it was okay (and even good) to keep orangutans as pets were asked why, there were two clear opinions on this. First, as expected, people want to have pet orangutans because they are funny and unique. This isn't surprising; a significant portion of the wildlife trade is driven by the "cute-factor." The second answer was somewhat unexpected: it appears that people believe that, because the forest is quickly shrinking and orangutans are going extinct, keeping one in their homes is actually a helpful form of conservation. This implies that people are hearing the message about the importance of the rainforest, and want to protect orangutans, but are going about it entirely the wrong way. This answer is something that we (and other orangutan conservation organizations) have been hearing more and more often recently, and clearly means that our collective message needs to be more nuanced if we are to prevent unwanted consequences. In my opinion, this example perfectly illustrates the importance of social survey data. We must listen...
to feedback from the communities to understand the true impact of our actions, and tailor them accordingly to guarantee a positive impact!

This simple graph shows a dramatic difference between the number of respondents in Ketapang and Kayong Utara who are conscious of Indonesia’s wildlife protection law, and will help guide our environmental education efforts in Kayong Utara in 2016.

Doing these kinds of surveys can sometimes get depressing when we realize just how much more work there is to be done. However, there are some positive conclusions that we can draw from this exercise as well. First, several respondents made the comment that "animals also want to be free, like humans," which is a powerful statement. It shows that a sense of empathy for biodiversity is developing in these communities, which hopefully will continue to grow into a powerful source of conservation action. The second major conclusion that I’ve drawn from these data is the importance of environmental education. The results of the survey show a very clear difference between Ketapang and Kayong Utara, with Ketapang respondents across the board showing more knowledge about and positive attitudes toward conservation. This seems counterintuitive at first glance. Ketapang residents live in the city, and aren’t necessarily very dependent on the rainforest for their lives, whereas people in Kayong Utara are still very dependent on the forest, both economically and in terms of ecological services. However, GPOCP’s main office is in Ketapang city, and over the past 15 years we’ve worked in virtually every school in the city to teach students of all ages about the importance of orangutans and their rainforest habitat. Our work has more recently been supplemented by other conservation organizations who are also based here in the city. Education is an incredibly important factor in saving wildlife and habitats, and highly educated communities are more likely to care about conservation - a conclusion which is clearly supported by these social survey data.
The social surveys have not only been immensely helpful to our work, but have also provided the university students supported by our Bornean Orangutan Caring Scholarship with some unique training opportunities, including the task of designing billboards based on data obtained from the surveys.

With this information in hand, last week we worked with the BOCS recipients to design two conservation-themed billboards based on the real-world data they collected, and we will produce and display them during the first quarter of next year. In addition to hanging the billboards, we'll also be sharing the results of our survey with the local government in an effort to help them better target their own conservation activities. We've certainly got our work cut out for us in 2016. Stay tuned to our social media feeds (linked in the sidebar) to keep up-to-date on our progress! Special thanks to Orangutan Outreach, who have funded every step of this project along the way.

Food from the Tree Tops

*By Katherine Lauck, Research Assistant*

The research that I am helping with at Cabang Panti, for Ph.D. student Andrea DiGiorgio's dissertation, seeks to better understand the diet of the Bornean orangutan. Andrea is a student of Dr. Cheryl Knott's in the Anthropology Department at Boston University. Nutritional analysis has been a part of Dr. Knott's orangutan research from the very beginning, but Andrea wants to take it one step further. Specifically, Andrea is asking how the nutrient content of foods affects the feeding choices of
orangutans. For example, why do they eat leaves, which are thought to be low-energy foods, when higher-energy fruits are available? Why do they consume the fibrous, tough, and often bitter inner layer of bark (called the cambium)? Before her project, the majority of nutrition research focused on fruits for two reasons. The scientific reason is that orangutans are currently classed as frugivores. The second, and more practical reason, is that other foods, including leaves and epiphytes, often grow exclusively high in the canopy, which is inaccessible without technical tree climbing experience, expensive gear, and a lot of hard work. Thus, in the past, it was often difficult to get an adequate sample of these hard to reach items, and the nutritional analysis of leaves and epiphytes was unfinished compared to fruits. But without analyzing the nutritional qualities of these foods, our understanding of the diet choices of orangutans would be incomplete. During Andrea's search to acquire the training necessary to safely climb the towering rainforest trees in Gunung Palung National Park, she met me, a recent Cornell graduate who (at the time) spent her springs and falls as an instructor at the Cornell Tree Climbing Institute.

Katie beginning a climb into the canopy to collect food samples for nutritional analysis.

I climb trees using ropes as my life-support system so that I can easily reach the upper canopy without fearing a fall. I have employed three main
systems while assisting on Andrea's project. For the first, called the Single Rope Technique, I slingshot a small rope over a hefty, healthy branch and use it to pull up a larger rope that I secure and then climb. In the second technique, the Double Rope Technique, I pull a short rope around a close branch, secure both ends to my harness, and use a metal device called an ascender to shorten the rope. The third technique is called girdling, and for this I use a rope connected to my harness and a foot hold. Both are tied around the trunk of the tree, allowing me to ascend the trunk directly. At times I may need to use all three techniques in one tree, depending on the location of the sample.

The largest tree I've climbed thus far in Indonesia was enormous, at about 200 feet, it easily towered over its neighbors. A thick coating of epiphytes concealed its branches and lianas obscured its trunk. Earlier, a female orangutan had rustled through this thicket searching for a specific plant that we had been unable to identify. Luckily, she had dropped a few leaves to our team below who, despite their binoculars, had to strain to see her. So when I found the tree a few weeks later to climb it, I felt humbled by her bravery and innate skill.

The view from the treetops - a vantage point that few humans get to experience. Photo: Katie Lauck.
I reached the top after an hour of climbing carefully to avoid any bees or ants that could bring my adventure to a painful and early end. I beached myself on the first big branch and surveyed the view. Above me, the tree rose another 50 or more feet. Below me, the trunk plunged into the secondary canopy, which left no window to the ground. Around me I saw a sea of leaves ruffling in the light breeze. Swifts consuming their daily bread of insects zipped along the surface. My target, a succulent, grass-shaped epiphyte, sprouted no more than 10 feet above my head - but would it be enough for a full 36-gram sample? I didn't think so. I scooted up a liana and depleted the patch; I would definitely need more. After a few minutes of scrutinizing the main trunk and its branches, I spied a massive spray of the epiphyte...located about 30 feet from the main trunk at the tip of a huge branch.

Katie hard at work in search of valuable data for Ph.D. student Andrea DiGiorgio's dissertation.

An hour of hard work later I reached the branch and stuffed my sample bags full. Satisfied and exhausted, I collected my gear and descended, where Andrea awaited the verdict. Did I collect enough? Would we be able to analyze this sample? Yes. We would. Over the last 10 months, I've been lucky enough to collect many of these never-before-analyzed plants,
and I hope that Andrea's dissertation as well as the entire orangutan research project will benefit from my tree climbing efforts.

*Katie graduated from Cornell University with an evolutionary biology degree earlier this year, and previously worked at the Cornell Tree Climbing Institute.*