

Gunung Palung Orangutan Conservation Program

Code RED

an e-newsletter from your friends in West Kalimantan

April 2020

Issue 88

Dear Friends and Supporters,

As another month of the COVID-19 pandemic has passed, I hope you are all staying safe and healthy. As we've continued our practice of social distancing, our conservation team has continued to expand their use of technology and hold virtual outreach activities throughout the month of April. In our first article, we share some of the online activities that went on last week for Earth Day, and encourage you all to continue the practice of celebrating our earth throughout the year.

The second article comes from Research Manager Ella Brown, who recently returned home to the U.S. after a year studying orangutans in Gunung Palung National Park. Ella writes about one of our newer projects, which she has played a critical role in developing. She explains the use of laser camera photography as a tool to study orangutan growth and development.

Throughout this coming month our thoughts will be with those affected by COVID-19 around the world.

Sincerely,

Cheryl Knott, PhD

Executive Director

[Gunung Palung Orangutan Conservation Program \(GPOCP\)](#)

Earth Day 2020

By Victoria Gehrke, Conservation Program Director

Same day, different year, but a world view ago. Last year for Earth Day, GPOCP staff and volunteers headed out to pick up trash in the local city park and created awareness about caring for our Earth and preventing pollution. For Earth Day 2020, we, along with the rest of the world, took a digital approach.

The theme for Earth Day 2020 was Climate Change. This theme is fitting after last year's memorable and devastating fires, which ravaged much of Australia and the tropics after abnormally long dry periods and landscape alternations changed microclimate dynamics. This year, Earth Day could have been a rather isolating and lonely day, considering the global pandemic that confines most of us to our houses and restricts social contact. However, a common enemy seems to have banded people together across the globe for this one day more than ever! There were free online resources such as film clips, coloring books, games, and free webinars from environmental NGOs and zoos left, right, and center. From expert panels on the seriousness of COVID-19 risks for primates, to how to fold a lemur-shaped origami, to dance parties in your back garden! We were happy, as a small NGO, to be able to join other online activities and campaigns to learn, as well as share our own.

Our 2020 Earth day campaign took a multidimensional approach also. We had live streaming on our Indonesian Instagram about climate change, its effect locally and globally, and how to combat it. The interactive nature of social media allowed for live questions and conversations, with many people in West Kalimantan feeling the effects of climate change every day.



A promotional flyer for our Instagram Live Stream. It reads, "Earth Day 2020 – Sharing Knowledge about Climate Change." This event was led by two of our dedicated youth group members, lin and Bambang.

Our team also made some conservation awareness posters along with a downloadable "Good Habits for an Environmentally Friendly Lifestyle" checklist (so far in Indonesian only!).





This downloadable checklist encouraged youth group members to mark off all the environmentally friendly habits they partake in, such as riding a bicycle to school, always bringing a reusable water bottle, having your own shopping bag, and turning off lights while sleeping.

Our more creative and interactive take, however, was the in-your-own-home competition, with prizes included! Participants were asked to create something useful or aesthetically pleasing using recycled goods from everyday items found in their home. The winners (locally only, sorry international followers!) will be announced May 4th and win T-shirts, reusable water bottles, tote bags and certificates.

Tantangan kreativitas #DIRUMAHAJA
HARI BUMI
 2020
Setamatkan Bumi dari Rumah

- Buat kerajinan tangan yang bermanfaat untuk kehidupan sehari-hari dari barang bekas.
- Posting foto hasil karya di akun instagram pribadi.
- Tambahkan caption menarik tentang manfaat produk dan beri tagar #SaveOurEarthFromHome #HariBumi2020 #YayasanPalung
- Tandai akun IG @yayasan_palung pada foto dan minimum 5 akun teman kamu. pada caption.

Periode Pengiriman 1 - 30 April 2020
 10 karya terbaik akan di upload di IG @yayasan_palung pada 04 Mei 2020

Hadiah Menarik Untuk Pemenang

JUARA I  +  +  + 

JUARA II  +  + 

JUARA III  +  + 



GRATIS!
tanpa biaya apapun.

Penyelenggara

Our at-home competition will award prizes to the first, second and third place winners! Participants were encouraged to make handicrafts that are useful for daily life. They then had to upload their photos to Instagram, using the hashtag #SaveOurEarthFromHome, and tag 5 of their friends!

Just two samples (below) of the entries are flowers made from old newspapers and a lampshade made from wood scraps.



Additionally, we received some nice feedback on a short video featuring local stakeholders and their words about Earth Day (including mine!). Check it out [here](#).

My statement was “Earth day is an annual event to show support towards environmental protection and wildlife conservation. This year, it is more important than any to show unity and solidarity towards protecting the Earth’s vital ecosystems.” Both we as an organization, and I personally, were floored by the show of solidarity that came pouring through the computer screen last week! This global

pandemic arose from humans constantly encroaching into wildlife habitat, from removing them and putting them in cages, from breeding them in confinement for consumption, from lack of basic welfare standards for animals, and from poor policies and follow-through on the illegal wildlife trade. It may be one or a combination of all of these that caused the world to go on pause for an indefinite period and will cause long-term effects, whether we are prepared or not. Themed days for awareness or refocusing our attention make a difference in helping people learn about new concepts, examine their own behavior, and create new solutions. More importantly, they also serve as a way to provide a community of caring for each other, or for that cause. And communities can cause a movement, and movement means change.

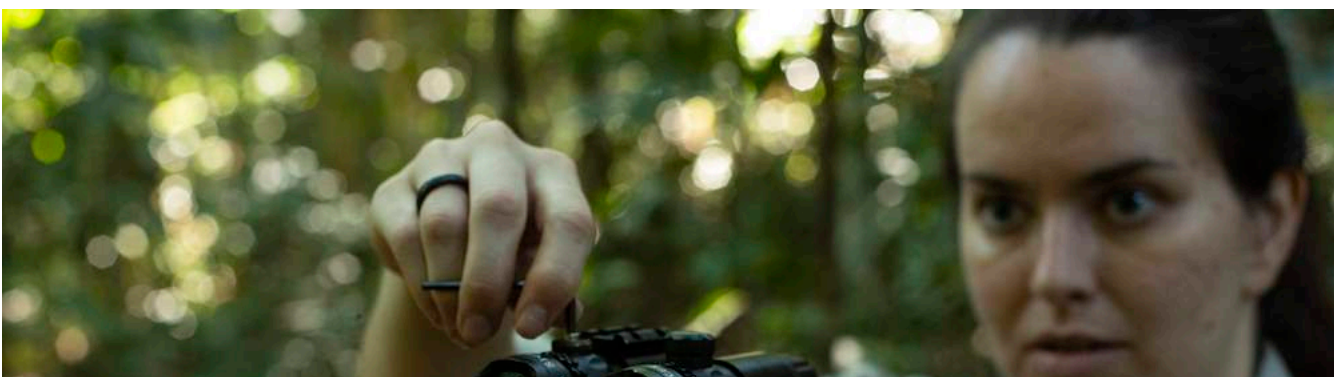
We are so grateful for all who interacted with us during this Earth Day, as well as those NGOs and zoos who put on their own events to share the idea that though nature might have finally bubbled over for a little, it has not forgotten us and still needs us to make good and strong choices for her (and our!) survival.

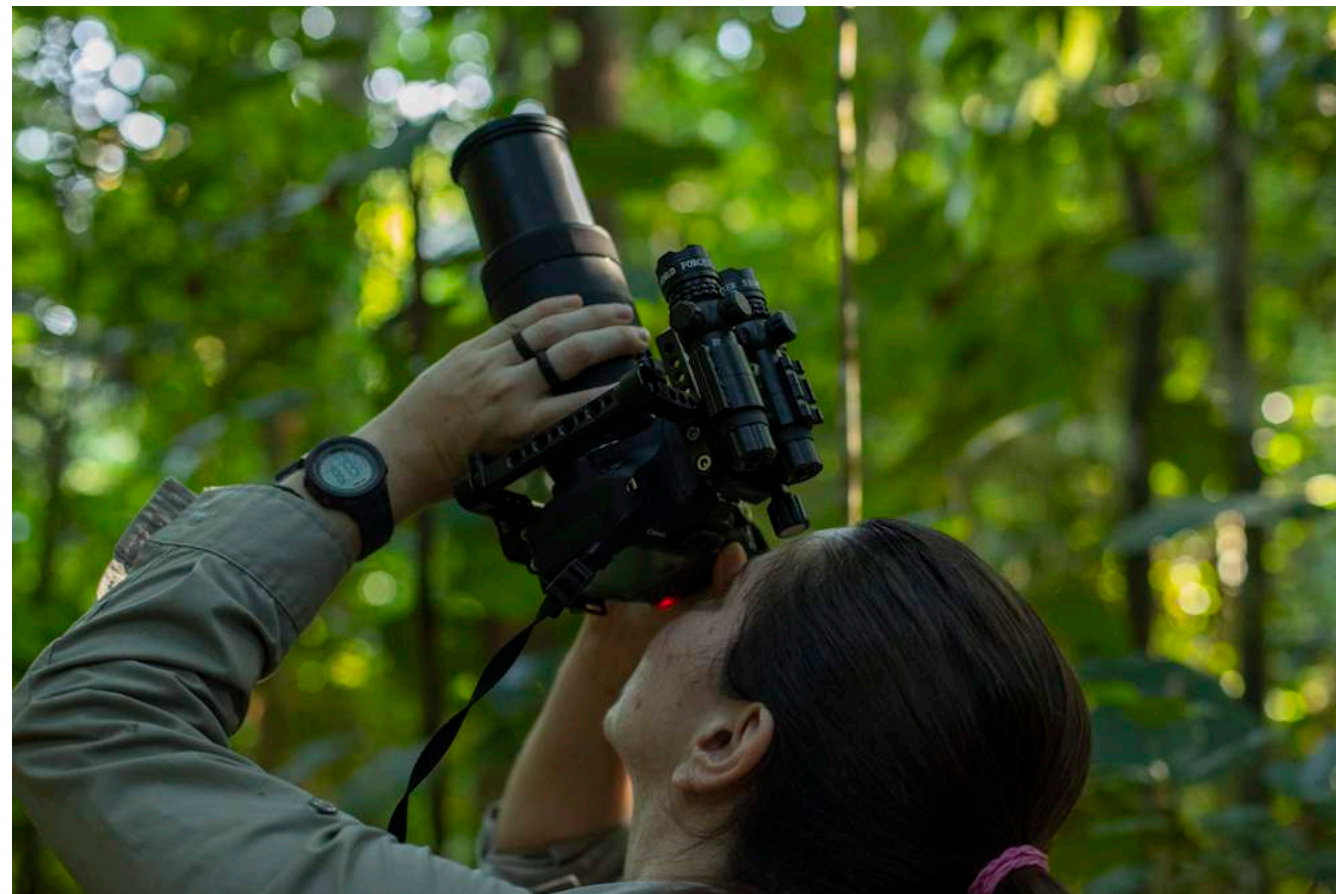
Happy Earth Day, week and month to you all! Please reach out if you have ways you'd like to help GPOCP in our digital or local work – perhaps by drawing Gunung Palung wildlife postcards as a fundraiser, creating coloring templates for kids at our education events, or making an educational poster we can share online and print for our local schools! Everything helps, and everyone is needed.

Lasers and Orangutans: Measuring Growth from a Distance

By Ella Brown, Research Manager

I have been the Research Manager for the Gunung Palung Orangutan Project since April 2019. Sadly, I am not in the field anymore, but continuing to help the project as much as I can from my home in America. I have managed a variety of data collection methods for the past year, all aimed at answering questions about orangutan health, development, and behavior. One of my favorites has been the implementation of a laser camera project. You may be surprised to read about lasers in the context of orangutan research, but this is actually an ingenious way for us to track the growth of orangutans without having to get close to them. Bodily measurements are vital to understanding how young orangutans grow and can help answer questions about adult body size and cheek flange development. Obviously, we cannot walk up to a wild orangutan and get out a ruler to measure different parts of their body. One reason to mention this, in the current context, is that humans and orangutans are able to exchange illnesses. We therefore have to be clever in the way we approach these measurements to ensure both we and the orangutans stay at a safe distance from one another. Amazingly, we can take these measurements from a photo of an orangutan – using a contraption that affixes two parallel lasers atop a camera.





Ella must first calibrate the parallel lasers which are affixed to this camera. © Tim Laman

Each time we take a picture, we make sure the lasers are turned on and visible either on or near the orangutan's body. These are low-power lasers that don't pose a danger for people or animals. We need to make sure that within each photo we take, the two laser points are visible. It is vital that we know the millimeter distance between the laser points – if the lasers are perfectly aligned, no matter how far away they are pointing, the distance between the points will never change. This means that within the photo we take of an orangutan, the laser points will be at a known distance apart. This is a vital part of our calculations to estimate body size because we can use this distance to create a scale within the photo. We can use a computer program to easily measure the number of pixels along a

line within a photo. For our purposes, we measure the pixel distance between the two laser points, visible in our photo of an orangutan. This means that we now have the millimeter distance between the lasers as well as the pixel distance between the laser points in the photo.

Using simple math, we can use these numbers to calculate a millimeter-to-pixel ratio, determining how many pixels are along a one-millimeter line within the photo. Then, we can use the same computer program to count the number of pixels along the length of an orangutan body part. We have been focusing on forearm lengths and cheek flange widths. So, once we have the length of a forearm or width of a flange in pixels, we can use our previously calculated scale to convert this into millimeters. And there we have it, the estimated measurement of part of a wild orangutan's body.



Photos like this can be used to estimate the forearm length of orangutans, like this flanged male named Logan. Photo by Ella Brown.





This photo was used to estimate the forearm length of adult female Walimah. The known distance between the lasers, which are pointed towards Walimah's back, allows us to calculate the distance of her outstretched forearm. Photo by Ella Brown.

In real-life conditions, we have to do a lot of calibration to make sure we confidently know the millimeter distance between the lasers. When we carry the camera into the field, for instance, there is no way to avoid jostling of the camera and lasers. Often, this can result in the lasers becoming slightly divergent, meaning that they are no longer at our known millimeter distance apart. This is an extremely important factor to take into account because the fixed distance between the lasers can make or break the calculation. If you use an incorrect millimeter value from the very beginning, then your ultimate bodily measurements will be completely wrong. Therefore, during my year in the field, we have implemented various methods to calibrate and check the distance between the lasers in real time. With our method in place, we now aim to create a database of forearm lengths and flange widths for all the individuals we study. In the future, we can use this information to gain so much more insight into growth rates, health status, and development of the wild orangutans in Gunung Palung.

These data are just one of the many that I helped to manage and collect during my time in Gunung Palung. I had an incredible year filled with hard work, exhaustion, and unforgettable moments that made it all worth it. I had never worked with wild orangutans before (only those in captivity), and this experience has opened my eyes to even more traits that make them extraordinary. For example, they seem to be able to remember the location of particular fruit trees, even years after they last visited. They also play a vital role in sustaining the life of the forest, dispersing seeds so new trees will grow.





Ella collecting data during an orangutan follow. Photo by Tori Bakley.

Due to the current pandemic, I decided to leave the field three weeks earlier than originally planned, and return to America. I am lucky that I was able to book a ticket at such short notice and return home safely. I know that many people abroad during this time were not so lucky, and were unable to get flights home for extended periods of time. I am thinking about the team working in Gunung Palung every day, and send them my well wishes. I know they are taking all the necessary precautions to prevent the spread of COVID-19 to both themselves and the orangutans. We will get through this together.

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has.”

- Margaret Mead



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