

Dear Friends and Supporters,

Greetings from the rainforest! As I write to you today, I'm looking out over the beautiful *Air Putih* River that runs in front of our camp. It has been such a thrill to be back in Indonesia again. We started by spending a few days in Jakarta where our team attended, and I gave a talk, at the Women and Primatology Symposium hosted by the Universitas Nasional. We then headed to Ketapang, Borneo, where Yayasan Palung (GPOCP) is headquartered. It was a wonderful reunion with all of the conservation staff. After several days in Ketapang we hiked up to the Cabang Panti Research Station and had another reunion with our research staff. You can follow our experiences the GPOCP Facebook on Page, Instagram and Twitter where we are posting pictures of our time here this summer.

Our first article this month comes from Sustainable Livelihoods Manager, Ranti Naruri, and Conservation Field Director, Edi Rahman. Ranti and Edi write about the recent distribution of brand new firefighting equipment to Customary Forest Management Boards (LPHD) and community members of Tanjung Gunung village, on the edge of the National Park. With training and further capacity building workshops, these communities will be able to prevent and fight land fires which devastate the region nearly every year.

The second article comes from Tasya Azzahra Priandani, an undergraduate student researcher from Universitas Nasional (UNAS) in Jakarta. Tasya writes about her time thus far at

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## IN OTHER NEWS:

New paper out now!

Authors Dr Lara Saipe Durgavich, Faye Harwell and Dr Cheryl Knott write on Acomposite menstrual cycle of captive orangutans, with associated hormonal and behavioral variability. They looked at 44 menstrual cycles of 7 female orangutans and their sexual behaviors. Large-scale empirical measurements of ovarian hormones are very rare for most primate species, including orangutans, so this paper provides important new insight.

Cabang Panti Research Station. Tasya's research is part of an exciting initiative by UNAS (our research counterpart university) to look at secondary metabolites in plants eaten by orangutans at various research stations throughout Indonesia. She aims to understand the medicinal potential of these plant foods, and discover whether there is overlap with plants used in traditional medicine in Indonesia.

I am excited to continue soaking up my last couple of weeks in this majestic forest. I wish you all a happy and healthy August!

Sincerely,



Back in Gunung Palung!

Follow us on Instagram to keep up with the latest new photos from the rainforest.

Cheryl Knott, PhD Executive Director

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Gunung Palung Orangutan Conservation Program (GPOCP)

## Providing Firefighting Equipment for Villages in the Gunung Palung National Park Buffer Zone

By Ranti Naruri, Sustainable Livelihoods Manager & Edi Rahman, Conservation Field Director

One of Yayasan Palung's (GPOCP's) signature programs is assisting communities to gain control of their traditional forests so that they can be managed sustainably. We have provided this support to several villages in Simpang Hilir District through a number of social forestry initiatives, one of which is for village forests (*Hutan Desa*). We have helped seven communities in this district to achieve official recognition of their *Hutan Desa* from the Ministry of Environment and Forestry of the Republic of Indonesia. This allows these forests to be officially managed and sustainably utilized by these village communities.

All the *Hutan Desa* are located in peat swamp forests, which provide a home for many protected animals, including orangutans. However, because most of the area is peat, it is very vulnerable to forest and land fires, which usually occur in the dry season. Various efforts have been made by Yayasan Palung to prevent forest and land fires, including awareness campaigns, training on land clearing without burning (PLTB), and most recently, providing firefighting equipment.



A freshly cleared patch of forest for agricultural use in the Gunung Palung National Park buffer zone.

In 2019, Yayasan Palung provided one set of firefighting equipment, which was placed in the Nipah Kuning *Hutan Desa*. This past month, we provided an additional five units of equipment. Four of these sets were given to the *Hutan Desa* in Padu Banjar Village, Pulau Kumbang Village, Pemangkat Village, and Penjalaan Village. The fifth set was given to the village of Tanjung Gunung, which directly borders the National Park, and is the entry point for researchers to hike to Cabang Panti Research Station.

The firefighting equipment we provided will help extinguish fires in the event of forest and/or land fires in each village, both inside and outside the village forest area. Forest and land fires most often occur on community land when people clear land for agriculture. Eventually, if not contained, these fires can spread to village forests and other forested areas. It is our hope that this equipment will help halt the spread of fires if they occur. This firefighting equipment is also easily transportable because it only weighs about 11 kilograms, making it very easy to extinguish fires in a variety of locations, as long as there is a water source.

In the *Hutan Desa*, delivery of equipment was carried out at each respective village office, and received by the head of each *Hutan Desa* Management Board (LPHD). This was also witnessed by Ibu Dwi Erlina Susanti (head of the Community Protection and Empowerment Section, Technical Implementation Unit of the Kayong Utara Forest Management Unit), the Village Head and village officials. The delivery of equipment for Tanjung Gunung was carried out at the Bentangor Center and presented to the "Mina Sehati" aquaculture group, then brought back to the village.





The delivery of equipment to Pemangkat (top) and Padu Banjar (bottom) villages.

After all the equipment was given out, we facilitated a training on fighting forest and land fires. The training was run by three staff from Manggala Agni, an Indonesian Forest Fire Control Brigade. Participants included representatives from the 5 LPHD, members of the Mina Sehati group in Tanjung Gunung, staff from the Gunung Palung National Park Office (BTN-GP) and staff from the Kayong Utara Forestry Service (KPH). Participants were introduced to all the equipment and learned techniques for the use and maintenance of the tools. They also learned fundamentals about fighting forest and land fires. They then practiced using the equipment during a firefighting simulation, dividing into teams with different roles in the event of a fire.

We are grateful to have support from our funders to be able to provide this equipment for the community. This training comes at just the right time, as we will soon enter the driest part of the year, when the land is most vulnerable to fire. By building up the capacity of these local community groups, we can empower people to protect and sustainably manage their land, and work together to preserve forests and the biodiversity within them.



LPHD and Tanjung Gunung community members receive training on how to use their new equipment to effectively fight fires.

As we approach the dry season, we would like to raise funds to buy two additional sets of firefighting equipment to give to two Hutan Desa in Rantau Panjang and Batu Barat villages. Please consider making a <u>charitable donation</u> to help support this initiative.

## Gunung Palung, Gateway to Dreams

By Tasya Azzahra Priandani, Student Researcher

Hello, my name is Tasya Azzahra Priandani. I am an eighth semester student from the Faculty of Biology at the Universitas Nasional (UNAS) in Jakarta. I am writing this article to share my research experience in Gunung Palung National Park, which has been full of fun and learning.

When I was in high school, I was always interested in nature and the biodiversity of Indonesia. I felt grateful that I was born in this beautiful country. When I started college, studying in the Faculty of Biology at UNAS,

I dreamed of setting foot in Kalimantan (Borneo) to conduct research. My lecturer at UNAS, Dr. Sri Suci Utami Atmoko, allowed my dreams to come true by opening the gates of research in the land of Borneo. I could research the Bornean Orangutans (*Pongo pygmaeus wurmbii*)!

When I first stepped into the Cabang Panti Research Station in Gunung Palung National Park, I was amazed by the condition of the habitat and the diversity of fauna and flora within it. This area has eight different habitat types which are divided into peat swamp forest, freshwater swamp forest, heath forest, alluvial bench forest, lowland sandstone forest, lowland granite forest, upland granite forest, and montane forest, supporting an array of Indonesia's endemic species, including orangutans. Not only the presence of fauna, but also the flora attracted me to this forest because there are various types of plants that have unique morphological structures.

When following orangutans, I accompany Pak Alang (Hassan), Bang Toto, Bang Sabta, Bang Dika, Bang Dang, Bang Jaka, Bang Yogi and Bang Sahril in data collection. Usually, we go in a team of 3 to 4 people to follow orangutans. During the first week, I learned about data and sample collection. One of my first follows was with an adult female named Tari and her infant who were in a *Ficus* tree (family Moraceae). They had a "party" with a flanged male named Alfred. The existence of these three individuals together in one tree amazed me with their morphology and behavior. I observed Tari make a vocalization called a kiss squeak and Alfred eating *Ficus* with an interesting technique of pulling on twigs while he was lying down. This follow made me excited to meet more individual orangutans and see the differences in behavior and morphology they have.



Adult female orangutan "Tari" and her infant during a recent follow.

I continued going on follows after that first week. Each day we depart from camp at 4:00AM to walk through the forest trails to the orangutan sleeping nest location and wait for the orangutan to wake up. Data collection is carried out throughout the day until the orangutan builds a sleeping nest. The behaviors of the orangutan recorded include resting, eating, socializing and traveling, with observation intervals every 5 minutes, or when the primary activity changes, until the orangutan falls asleep in their nest. Normally we continue for 5 days of observation.

We also collect urine and fecal samples, which is usually done when the orangutan first wakes up and urinates and defecates. When orangutan urine is collected, we then use urine test strips (called Chemstrips) in the forest to check for different health indicators. The feces is then collected each time the orangutan defecates and is later taken to the lab back at camp for analysis. Urine and feces from orangutans can help us understand orangutans' health condition.



Author, Tasya, testing orangutan urine in the field.

We also collect plants that orangutans are eating, and are still in intact condition, that have fallen to the ground. If the orangutans are eating, the hunt for food samples begins!

The field assistants and I collect food samples from the ground and later bring them back to the lab at camp for processing after the follow has ended. Processing the food samples I collect is very interesting because they need to be separated by the parts eaten and not eaten. For example, the different potential parts are fruit flesh, skin, seeds or whole fruit; young leaves and old leaves, and tree bark or the cambium from the bark.



An orangutan food item (Ptenandra coerulesceus) that fell from a tree.

The collection of these foods is essential to my research project. The goal of my senior thesis is to look at the secondary metabolites in orangutan foods to determine the medicinal potential of plants foods. Hopefully, this research can provide information in the future about orangutan foods that can be used as a source of natural medicinal plants for animals and humans.



Tasya processes plant samples after a full day of following.

Not only do I enjoy data collection, but I also have lots of fun at camp with the field assistants and employees of Gunung Palung National Park. We always talk, sing, play games and cook together. I will never forget this experience! I am still doing this research and I hope that in my remaining time at camp there will be more experiences and lessons that I can learn. I am so grateful for this experience. Thank you!



Tasya follows the adult female orangutan, "Bibi."

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Management of Cabang Panti Research Station is conducted by the Gunung Palung National Park Office (BTN-GP) in collaboration with GPOCP/YP. Scientific research is carried out in conjunction with the Universitas Nasional (UNAS) and Boston University.

"We are the first generation to feel the effect of climate change and the last generation who can do something about it."

- Barack Obama