

Dear Friends and Supporters,

As we wrap up Thanksgiving and time spent with loved ones here in the US, our hearts are with our Yayasan Palung family in Indonesia. Desi Kurniawati, our longest running staff member who was with us for decades, very sadly passed away on November 25th. She leaves behind a loving husband and young son, and countless friends and colleagues who will miss her warm and welcoming nature. We were blessed to have her as a part of our team, championing for orangutans and the betterment of communities throughout the region. She touched every part of the organization, and will be deeply missed.

Even with our hearts heavy, we look back with the fondest memories and look forward to a bright future, continuing to fight for the mission that Desi was so dedicated to.

Before this unexpected and tremendous loss at the end of the month, our conservation team was busy commemorating Orangutan Caring Week, which is marked worldwide every November. Pit, our Media Coordinator and Environmental

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Education Officer, tells us about the many activities that we hosted to spread care for orangutans.

In this issue we also have a collaborative article from a number of folks at the research camp, describing their experience so far with the mast fruiting event that is underway. Learn about what a "mast" is and why this is such an exciting time at Cabang Panti.

With the holiday season well underway, we are feeling thankful for one another and for you, our supporters.

With gratitude,



Desi Kurniawati, longtime team member and beloved friend.

1975-2024

Cheryl moth

Cheryl Knott, PhD Executive Director Gunung Palung Orangutan Conservation Program (GPOCP) Join Save Wild Orangutans

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Orangutans Leading the Way: One Planet, One Future

By Petrus Kanisius, Media Coordinator and Environmental Education Field Officer

Orangutan Caring Week (known in Indonesia as Pekan Peduli Orangutan, or PPO) is a special annual event that focuses on the conservation of orangutans and their habitats. It is a way to share our concern and spread awareness about the critically endangered orangutan. Yayasan Palung uses this opportunity to encourage all people to work to protect orangutans and the forests where they live. Orangutan Caring Week is celebrated every November and this year the theme was, "*Orangutans Leading the Way*: One Planet, One Future." This theme emphasizes the One Health approach that we think is so important – orangutans and their conservation are the gateway to improving the wellbeing of people and the environment.

In commemoration of #OrangutanCaringWeek 2024 Yayasan Palung's Environmental Education team carried out a series of activities through an Environmental Education Expedition in Matan Jaya Village, Simpang Hilir District from November 11-14, 2024. We partnered with State Elementary School (SDN) Number 31 Seringgit to commemorate PPO, and we held drawing, coloring and general knowledge test competitions about the environment. The children had so much fun, both trying their hardest but also laughing with their classmates.



The Environmental Education Expedition in Matan Jaya.

On November 13th, festivities continued at State Elementary School (SDN) Number 17 Matan Village with drawing competitions amongst 3rd and 4th grade students, coloring competitions by 1st and 2nd grade students, and general knowledge quiz activities about the environment with the 5th and 6th grade students. The competitions were lively, and students really demonstrated pride in knowing about orangutans and their forests.

We also screened several documentaries about the environment and short films about orangutans throughout the expedition. The mobile cinema is always a big hit, as it brings community members together in a relaxed and fun way, all while learning new information and cultivating deeper appreciation for orangutans and the forests. Our goal with environmental education activities like these is that people, especially the next generation, come to know and love orangutans and contribute to their conservation and protection of their habitats. We also aim to educate and socialize teachers so that they also can campaign for conservation in the classroom on a regular basis.



The mobile cinema draws a large crowd.

### The Animal Protection Team Commemorates Orangutan Caring Week

Our Animal Protection and Rescue Program (PPS) also held a series of roadshow activities on orangutan conflict mitigation, involving communities directly adjacent to Gunung Palung National Park. The 'Roadshow' is when our team travels, often along with representatives of the national park and the the natural resources conservation office, to visit villages that have been engaging in illegal forest activity or have had elevated human-orangutan conflict. The team gives presentations and hosts discussions about laws and regulations protecting wildlife and responds to questions and concerns from community members. This works to prevent behaviors that might harm protected animals and also protects people by arming them with information to avoid illegality, and to know what to do if they encounter protected wildlife. This Roadshow was carried out on November 12th at the Multipurpose Building in Simpang Tiga Village, Sukadana District, North Kayong Regency.



Erik Sulidra, Animal Protection Manager, hosting the Roadshow.

# **Orangutan Caring Week in Village Forests**

Orangutans were also *leading the way* in our Village Forest Program this month. In commemoration of the Orangutan Caring Week, we carried out forest rehabilitation activities in the Padu Banjar Village Forest, planting in the burned area with various plant species that orangutans are known to eat. The forest rehabilitation effort took place on November 23rd and involved the Village Forest Management Institution (LPHD), the Indonesian National Army (TNI), the Police, and several communities of Padu Banjar village. We successfully planted 2,000 forestry plants of varying types.



Yayasan Palung also worked together with the Rantau Panjang Village "Kembang Desa" Education Group in commemorating Orangutan Caring Week through a series of activities, including tree planting activities and making crafts from plastic waste. The "Kembang Desa" Education Group is a group of women connected to the Rantau Panjang Village Forest. This goal of this women's group is to help campaign for the preservation of orangutans and their habitat, tapping into the unique social and familial leadership roles that women hold.

#### **Conservation Youth Groups Care for Orangutans**

Our Environmental Education program supports multiple conservation youth groups, including REBONK Volunteers in Sukadana District. REBONK volunteers used their creativity and social media savvy to create educational short video campaigns to commemorate Orangutan Caring Week. The videos shared information and messages about how important it is to protect orangutans as highly endangered animals. These young conservationists used this opportunity to invite all of us to care about the surrounding environment by being conscientious consumers and reducing material waste production. They reminded us that together, we have the power to shape the fate of orangutans and forests. They topped off their celebration by planting trees, demonstrating how individuals can make a difference. These young people always give us hope and optimism about the future with them as the next generation of conservation leaders.





Youth Group members sharing messages of orangutan conservation (top) and planting seedlings (bottom).

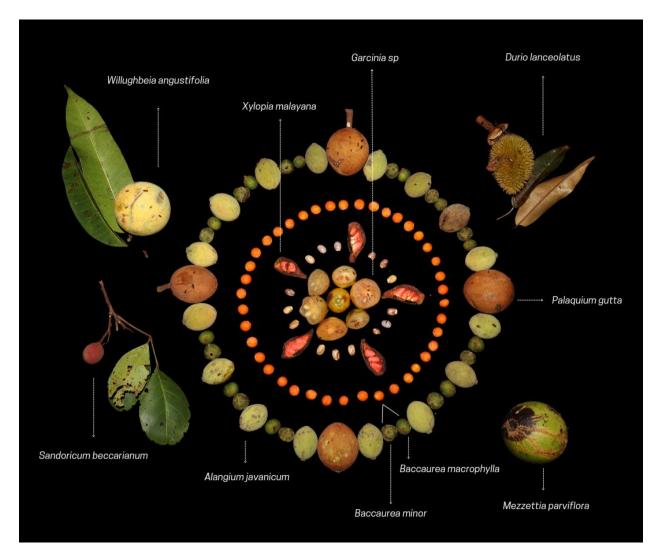
# A Cornucopia of Fruit: Exploring the Mast Fruiting in Gunung Palung

By Caitlin O'Connell, Deputy Director; with Jay Cogan, Volunteer Research Assistant; Ishma Fatiha, Assistant Research Manager; Ari Marlina (Ii), Research Assistant; Ziyadatul Hoiroh, Research Assistant

Picture this: You're walking through the dense rainforest, and every tree seems to be dripping with ripe fruit. Everywhere you look, fruits of every shape, size, and color are scattered on the forest floor or dangling from branches and vines. There are tiny, sweet fruits and large, hard-shelled ones; bright yellow, fiery red, and orange fruits all competing for attention. The air smells thick with the fragrance of ripening fruit, and the forest is alive with animals feasting on this rare bounty.

From the towering dipterocarps to the winding lianas, it seems like every tree in sight is bearing fruit. For animals like orangutans, gibbons, and other rainforest dwellers, it's a time of plenty—an event that could determine survival and reproductive success for years to come.

This 'masting' is unique to Southeast Asian rainforests. Influenced by El Niño events, it occurs irregularly and unpredictably every 3-7 years. Between these periods of plenty, the forests produce less fruit than African or South American rainforests.



*Ii created this beautiful layout of the fruit that orangutans have been eating in November.* 

# Why Does It Matter?

Mast fruiting is especially significant for rainforest animals that rely on fruit as their primary food source. In Southeast Asia, where orangutans, macaques, and hornbills all depend on fruit for much of their diet, a mast fruiting event can drastically alter their behavior. Orangutans, for instance, may travel less in search of food, and instead, spend their time enjoying the plentiful fruit surrounding them. During high fruit periods, orangutans store fat which gets them through the subsequent periods of low fruit (see <u>Knott 1998</u>). The increased caloric consumption also leads to increased ovarian function, higher probability of conception, and more mating events (<u>Knott et al. 2010</u>). This phenomenon can also have broader ecological impacts, helping to shape patterns of seed dispersal and plant reproduction. It is understood that the general low fruit productivity and unpredictable masts have shaped the many unique orangutan behaviors,

morphological characteristics, and physiological processes. For researchers, it's a golden opportunity to study how animals adapt to fluctuating food availability. Mast fruiting also provides insight into how plant and animal species are interconnected in the rainforest ecosystem.

# A Rare and Thrilling Experience

I don't get many chances to immerse myself in the heart of the rainforest these days, so whenever I do, I savor it. Cabang Panti, in particular, is my absolute favorite place on Earth. My most recent visit, at the start of this month, felt especially magical—because a mast fruiting had already begun.

I've seen the forest with relatively abundant fruit before. Back in 2013-2014, while I was collecting data for my dissertation, the fruit availability was generally high, though never actually masting. With plenty of food to go around, I got to observe far more social behavior among the orangutans than I ever expected. But on this recent visit, everything was different. I had never seen the forest like this before. It felt almost surreal. Everywhere I looked, I was surrounded by fruit—on the trees, on the ground, and even hanging from lianas. There were flowers, too, and a variety of fruit species I hadn't seen in years—and some I didn't recognize at all. From tiny, round fruits to large ones with tough husks, and even some that seemed to defy description, the forest was an endless sensory feast.



Blumeodendron (left) and Gymnostoma (right)

I felt like a kid in a candy store, giddy with excitement at every step. There was something new and bright at every turn. I was so grateful to explore alongside our National Park counterpart, Endro Setiawan, and the field assistants, who helped me identify the species. My memory was failing me on some of the fruits I hadn't encountered in so long, and they were a huge help in navigating the diversity around us.

I've spent the last 15 years reading about and pondering how mast fruiting affects orangutan behavior and physiology, but seeing it in person was an entirely different experience. It was both thrilling and eyeopening. The contrast between a mast fruiting event and a low fruit period is undeniable. As I walked through the forest, I couldn't help but wonder: Are the orangutans just as excited as I am? Do they sense the mast fruiting season has arrived? Do they feel a childlike delight at the sight of fruits they haven't tasted in ages?



Salacca affinis, or wild snake fruit (left), Baccaurea (center), and some immature Dipterocarpus fruit.

Eager to hear more about the mast, as my visit to the research camp was only a few days, I spoke to researchers who have spent varying amounts of time in the forest: Jay, a volunteer research assistant from the US, Ishma, our assistant research manager, and Ziya and Ii who are both research assistants.

## What is it like to witness a mast fruiting?

For Jay, volunteering at Cabang Panti during the mast fruiting season has been a once-in-a-lifetime experience. He explains, "The opportunity to volunteer at Cabang Panti is truly incredible. But to witness the rainforest masting is absolutely unbelievable. I'm lucky to witness this irregular supra-annual pattern, which has wide-reaching implications for all organisms here, especially orangutans."

This abundant season is a sharp contrast to the scarcity of fruit during low fruiting periods. Jay recalls how when he first arrived in July 2024, orangutans had to rely on fallback foods like leaves, bark, insects, and flowers. "About half of the botanical feeding samples we collected were fallback foods," he explains. But as the mast season began in November, everything changed. "Now, nearly all botanical samples are fruit," he says, marveling at the forest's incredible transformation.

Ishma, who has spent over four years working in the park, shares in Jay's excitement about the abundance of fruit. She notes that during mast they are busy with much more *kerja buah* (fruit work), documenting and photographing flowers and fruits. "We also spend more time identifying orangutans during the mast because more individuals come from different areas," Ishma adds. This influx of orangutans, drawn by the food supply, is an amazing chance for the team to observe how the orangutans interact with the environment and with one another.



Connarus (left), and two different species of Baccaurea (center and right).

## Have your work days changed in noticeable ways since the mast began?

Ziya has spent six months working in the field, spending most of her time running genetic analysis for a microbiome study. She finds the behavior of orangutans during this time fascinating. "There just seems to be more activity, even this early in the mast. I did see a baby orangutan try to kiss squeak, but no sound came out. I thought it was really funny!" Ziya is eager to find out how this surge in fruit consumption might impact the gut microbiome of the orangutans.

Ishma also recognizes that the abundance of fruit leads to changes in orangutan social behavior. "They seem more social than usual," she says, noting that the plentiful food allows orangutans to relax and spend more time in social groups. Research also suggests that orangutans are healthier during mast periods, likely due to the abundance of nutritious fruit. "I can't wait to check more parasite samples from fecal samples during and after mast," Ishma adds, looking forward to the upcoming scientific analysis.

Ii, who has been with the team for about nine months, explains that the orangutans' diet has shifted dramatically with the arrival of fruit. "During low-fruiting periods, orangutans typically rely on young leaves, bark, and epiphytes," she says. "But now, we're seeing much more fruit in their diet, and I am having fun photographing and documenting it all."



A gorgeous photo of Lithocarpus.

### What is your favorite part of the mast so far?

It is particularly intrigued by the *Lithocarpus* fruit, which is known for its distinctive shape and the unmistakable sound of orangutans chewing its tough fruit. *"Lithocarpus* is easy to identify during its season because you can hear the orangutans eating it," she explains.

Jay has become increasingly familiar with the many genera of fruiting trees in the jungle, finding the variety and beauty of the fruits truly staggering. "The masting pattern is so different from the seasonal cycles in my home in the Northeastern United States. It's fascinating and a privilege to experience," he reflects.

Ishma found it easy to identify her favorite fruit - "Durian, of course! And I found a new flower that I really like which is from Dillenia trees." Ziya added that Tetramerista fruits are fascinating and easy to identify.



Dillenia flower (left) and the inside of a durian fruit (right).

### What's next for the team?

As the mast season progresses and the abundant fruit grows and ripens, the team is poised to learn even more about how orangutans adapt to these changes in their environment. From observing shifts in social behavior to studying the physiological impacts of different diets, the research being conducted at Cabang Panti is vital to understanding the challenges orangutans face—and how they thrive in times of abundance and use it to cope with lean periods. We expect the peak of the mast to come in January, and are looking forward to the influx of animals and interactions that it will bring.



*li gets creative with the display of November orangutan foods.* 

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 Faculty of Biology at Universitas Nasional (UNAS) and Boston University.

"In the end, we conserve only what we love. We will love only what we understand. We will understand only what we are taught."

~ Baba Dioum, Senegalese poet



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