Gunung Palung Orangutan Conservation Program

November 2016 Issue: 47

Code RED

An e-newsletter from your friends in West Kalimantan

Dear Friends and Supporters,

We hope everyone had a wonderful Thanksgiving with family and friends. With the holiday season fully upon us, we welcome you to our latest edition of *Code Red*! This month we lead off by sharing our exciting new project using drones for orangutan conservation. This collaborative project has been months in the making and we are starting to analyze our data and find out how many orangutans are residing within Gunung Palung National Park.

Our second article is by Tim Laman, my husband and internationally recognized wildlife photographer. He talks about the story behind his award winning photo in the Wildlife Photographer of the Year Contest and his hopes for orangutan conservation.

On the side bar, check out the link to read Tim's article that made the front cover of the National Geographic Indonesian Edition! We are thrilled with how much attention his work has brought to orangutans and Gunung Palung National Park.

Finally, don't forget to sign up with Amazon Smile. Every time you shop you can help our efforts to safeguard orangutans in and around the Gunung Palung landscape.

Sincerely,

In This Issue:

Gunung Palung National Park in National Geographic

Be sure to check out December's issue of National Geographic. Tim Laman,

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

It's a Bird... It's a Plane... It's a Drone!

By Syahik Nurbani, GPOCP Orangutan Nest Survey Coordinator

And it is flying for orangutan conservation!

This month we embarked on a new and exciting conservation project. We are flying drones! With financial support from the U.S. Fish and Wildlife Service and Ocean Park Conservation Foundation, the Gunung Palung Orangutan Conservation Program, International Animal Rescue and the Gunung Palung National Park staff are conducting population assessments of wild Bornean orangutans by comparing ground nest surveys to new drone technologies. Orangutan nest surveys are often expensive and require a significant amount of time in the field. The goal of this project is to conduct a comprehensive population census analysis of orangutans within Gunung Palung National Park and compare results to a new drone based method of monitoring.

The project began about 2 months ago with the ground team trekking into the rainforest to survey and record data on all orangutan nests that were found in the pre-determined transects. Ten transect sites were selected throughout all reaches of the National Park, including peat swamp forest, lowland, and montane forest. These transects were often deep in the rainforest and required up to 15 expedition days to hike in and collect all the necessary information. The ground team is currently finishing up their last few transects and will be making their way out of the rainforest soon. In total, the estimated number of field days for the ground team to complete ten transects is around 45 days.

An orangutan nest found during the ground surveys. Photo credit International Animal Rescue.

A drone is an Un-manned Aerial Vehicle (UAV) that can retrieve photographic or video imagery. For this project, we worked with a world renowned wildlife photographer and husband to GPOCP Executive Director, Cheryl Knott, captured the life and story "Inside the Private Lives of Orangutans." It even made the front cover of the Indonesian Edition. Click here to read the article.

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Don't forget to sign up for Amazon Smile to help support our orangutan conservation and research efforts. Click here to start shopping and supporting us!

professional drone team, Swandiri Institute, based out of Pontianak, West Kalimantan. We used a fixed wing drone. This type of drone allows for a longer flight time and the flight plan can be pre-programed so the drone automatically knows where to fly. This month, the drone team met near the north end of the Park to start their journey of capturing aerial imagery that corresponded with the GPS transect points collected previously by the ground team. The drone team conducted six missions in 11 days! Unfortunately, as often occurs while doing fieldwork, the weather did not cooperate and turned into clouds and heavy rain. With these conditions it was difficult to fly the drone and collect the needed imagery, so the team had to take a break for two days and wait it out. Without this weather delay, the team would have been able to complete the surveys in even less time.

Bani, center in red shirt, with the drone team from Swandiri Institute.

One transect survey was suddenly interrupted with thick vegetation, so we had to look for alternative ways to gain access to the area. In the photo below, I am flying a multi-rotor drone (also known as a helicopter drone), which is relatively easy to control and allows you to hover over an area. We used this helicopter drone to find an area where we could have a safe take-off and landing location for the fixed wing drone. After a quick aerial view of the landscape with the helicopter drone, we knew exactly where we needed to be and made the short hike to that location. Drones have proven to be invaluable in their ability to expedite our work!

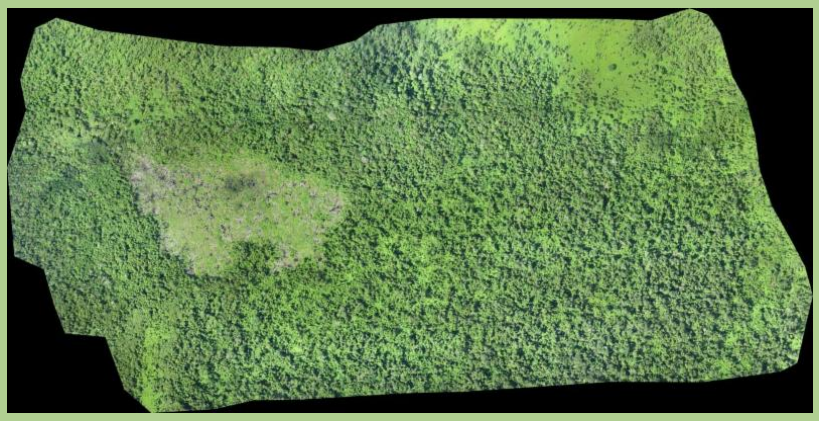
Bani learning to fly a helicopter drone.

The fixed wing drone obtains the best imagery when flying high above the

"I'm thankful for every moment"

-Al Green-

canopy. The camera takes a picture every 3 seconds, so one 50 minute flight will produce nearly 1,000 photos. These images are then stitched together into one image using a special computer program. Our team will then analyze each transect area and record any orangutan nests visible in the imagery. This project will give us an estimate of the current orangutan population in Gunung Palung National Park, and determine if drones are a cost effective tool for such assessments. These data can then be used for more effective conservation strategies and planning.



A mosaicked image from one of our drone surveys. Photo credit Swandiri Institute.

Again, we want to thank all of our partners for their support in this new and innovative project and we look forward to sharing the final results in the coming months.

Entwined Lives - The Story Behind the Photo

By Tim Laman

This year, it was my honor to win the "Wildlife Photographer of the Year" award with an image of an orangutan climbing a tree in Gunung Palung National Park entitled "Entwined Lives". As a wildlife photographer, it is a career highlight to win this award - the most prestigious in our field. But for me, it is particularly special because I made the image in Gunung Palung. GP is a place that I have had a personal relationship with for nearly thirty years, since I first went there as a research assistant in 1987, and I care deeply about its conservation. Not only did I do my Ph.D. research at GP, but I photographed my first National Geographic articles there, and of course, since I am married to GPOCP Executive Director Cheryl Knott, I have been coming to GP with Cheryl (and more recently our kids) nearly every year to help with her ongoing orangutan research program. This picture is one of six photos of mine on the theme of orangutan conservation that won first prize in the Wildlife Photojournalism Story category of the competition. All six will be part of a traveling exhibition of the top 100 images that goes to sixty venues around the world. Thus, I am hoping that the exposure from winning this contest, and the traveling exhibition, will bring some positive attention worldwide to Gunung Palung and the plight of orangutans.

Wildlife photographer, Tim Laman, in his element capturing photos of orangutans in Gunung Palung National Park.

This image has a very unique perspective. In fact, people say they have never seen an orangutan picture like it before. So I thought I would share what went into making this shot. I have actually had the idea of trying to photograph an orangutan up in the canopy with a wide lens for a long time. Gunung Palung has one of the very best remaining areas of lowland rainforest in Borneo, and intact primary forest is so important for orangutans.I wanted to capture a photograph that really showed the orangutan in the forest it depends on, and convey that feeling of the connection between them.

But getting a camera into position to get this shot was a challenge! This is a wild orangutan and would never tolerate me up in a tree near him. So the only way to get a photo like this is to use a hidden remote camera. The problem is, orangutans are just not that predictable and they may travel through a hundred different trees in the forest every week. So as I followed orangutans from the ground with Cheryl and her team, I was always looking for the right situation to try this. About the only thing somewhat predictable about orangutan ranging is that if there is a tree with a lot of fruit in it, they may visit it several times over multiple days. My hope for getting a shot like this was to find a tree like that and then climb and set up remote cameras when the orangutan had left, and hope he or she would come back. Luckily, I had developed the skills to do this as part of my PhD fieldwork in Gunung Palung between 1990-1992, when I did a lot of tree climbing for my research on strangler fig trees. It was then that I perfected my techniques for rigging ropes in trees and climbing them with rope-ascending equipment, and these skills have been part of my "tools of the trade" as a rain forest wildlife photographer ever since. In fact, soon after I started doing serious wildlife photography from up in trees in the 1990's I had the idea of photographing a wild orangutan close-up with a wide lens and even carried out some failed early attempts in 1994. So my recent efforts are the result of dreaming about such a shot and mentally planning it for 20+ years!

Tim's award winning photo of Ned climbing a tree in Gunung Palung National Park. Photo credit Tim Laman.

In 2014, when I arrived at Gunung Palung, one of Cheryl's students, Robert Rodriguez Suro, had found a good fruiting *Chaetocarpus* tree that orangutans were repeatedly visiting. I climbed it with ropes and mounted two DSLR's cameras, hidden in camouflage, and then we had a long stake-out. Every day for about a week, I would climb the tree early in the morning and put out the cameras with fresh cards and batteries. Then, photographer Trevor Frost, who was assisting me at the time, waited under that tree for orangutans to show up while I was following and photographing other orangutans in the forest. I think Trevor read a lot of books that week while he waited! We had a number of opportunities when orangutans showed up, and Trevor fired the cameras with a radio control. But things didn't go perfectly. We had range problems with our signals reaching up into the dense canopy, so the cameras wouldn't always fire. And the orangutans seemed to spot the cameras and take circuitous routes into the tree and avoid passing near them. Every night, I would climb the tree again, recover the cameras, and see if we had anything on the cards.

All that effort produced one shot that was "almost" there, of a female orangutan named Jumi passing pretty close to the camera one day. The shot (see below) really had that feel I wanted of being up in the canopy with the orangutan, but unfortunately, her face wasn't visible, and the orangutan was not quite close enough, so it just didn't quite work. I knew, however, that the concept was viable after this experience and was determined to keep trying. I just needed the perfect tree, and cameras that were better hidden.

Jumi did not feel like modelling this day, so Tim had to try again. Photo credit Tim Laman.

In 2015, we were back in Gunung Palung, and this time, the orangutan, Walimah, led me to an even better tree, the one where I finally got the shot I had dreamed of. It was an *Artocarpus* tree with a strangler fig (*Ficus stupenda*) growing on it. The fig tree had a large crop of ripe fruit that had attracted Walimah. She was soon followed by a young male named Ned, so there were two of them in the tree feeding. This tree was unique, because its crown was not touching any other neighboring trees, so the only way an orangutan could get to the fruit was to cross over from a small tree to the lower trunk of the tree, and then climb up the fig roots into the canopy. Perfect. When I saw the orangutan do this, I knew this was the best chance yet to get my shot. When the orangutans left after that first feeding session, I rigged a rope and climbed the tree and prepared camera positions. This time, I decided to use small GoPro cameras that were easier to hide, and could be controlled by wifi from the ground. For the next three days, I climbed the tree several times a day. Putting cameras out pre-dawn, and recovering them later. Walimah and Ned both visited each of those days, so I had a few chances to get the shot I wanted.

To get the prize-winning still image, I used the time-lapse mode on the GoPro, shooting two frames per second when the orangutan arrived and started climbing up the tree, capturing a series of images as the orangutan climbed. Many of them were blurred, and on some visits, the orangutans climbed around the back of the trunk, out of sight of the camera. But one of the frames, just as the young male Ned passed near the camera, captured the perfect moment of an orangutan in his element.

The rainforest of Gunung Palung National Park. Photo credit Tim Laman.

I like the title "Entwined Lives" for this image. For me, it captures my goal to show the connection and interdependence of species in the rain forest. The fig tree depends on its host tree for support - the orangutan depends on the fig tree for food - and by analogy of course, they depend on the entire forest ecosystem. I do believe that photographs can have an impact on people's appreciation and understanding of nature, and I hope people will realize before it is too late, how much our human lives are "entwined" with nature on this planet.

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