



Dear Friends and Supporters,

I hope you have had a happy and healthy month of March! I'm excited to announce that I, along with Dr. Erin Kane and Tri Wahyu Susanto, have written a section in a new paper, entitled *Confronting Ethical Challenges in Long-term Research Programs in the Tropics* by Seidler *et al.* [The article](#) highlights the challenges and ethical dilemmas faced by long-term research projects and how organizations, such as GPOCP, have addressed and met those challenges. Check out the sidebar to learn more about this paper.

Our first article this month comes from GPOCP's Animal Protection Coordinator, Erik Sulidra. Erik writes about his experiences conducting biodiversity surveys in our Customary Forests throughout the Gunung Palung region. He explains the purpose of these surveys, and shares results from some preliminary analyses.

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IN OTHER NEWS

The second article was written by student researcher, Rani Ferdianty. Rani comes from Universitas Nasional (UNAS) in Jakarta, and is currently conducting a 6-month research project at Gunung Palung. Here, she writes about her study using camera traps to understand mammal distribution and behavior.

Lastly, I'm proud to share that we have two new Boston University Anthropology PhD recipients who conducted their fieldwork on orangutans in Gunung Palung. Dr. Andrea Blackburn and Dr. Amy Scott both successfully defended their dissertations this past month. Dr. Blackburn presented her research on "[Orangutan Seed Dispersal Effectiveness and Spatial Distribution Patterns](#)" and Dr. Scott presented her research on "[Sexual selection and Sexual Conflict in the Reproductive Strategies of Bornean Orangutans](#)." A big congratulations to them both!

Sincerely,



Cheryl Knott, PhD
Executive Director

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

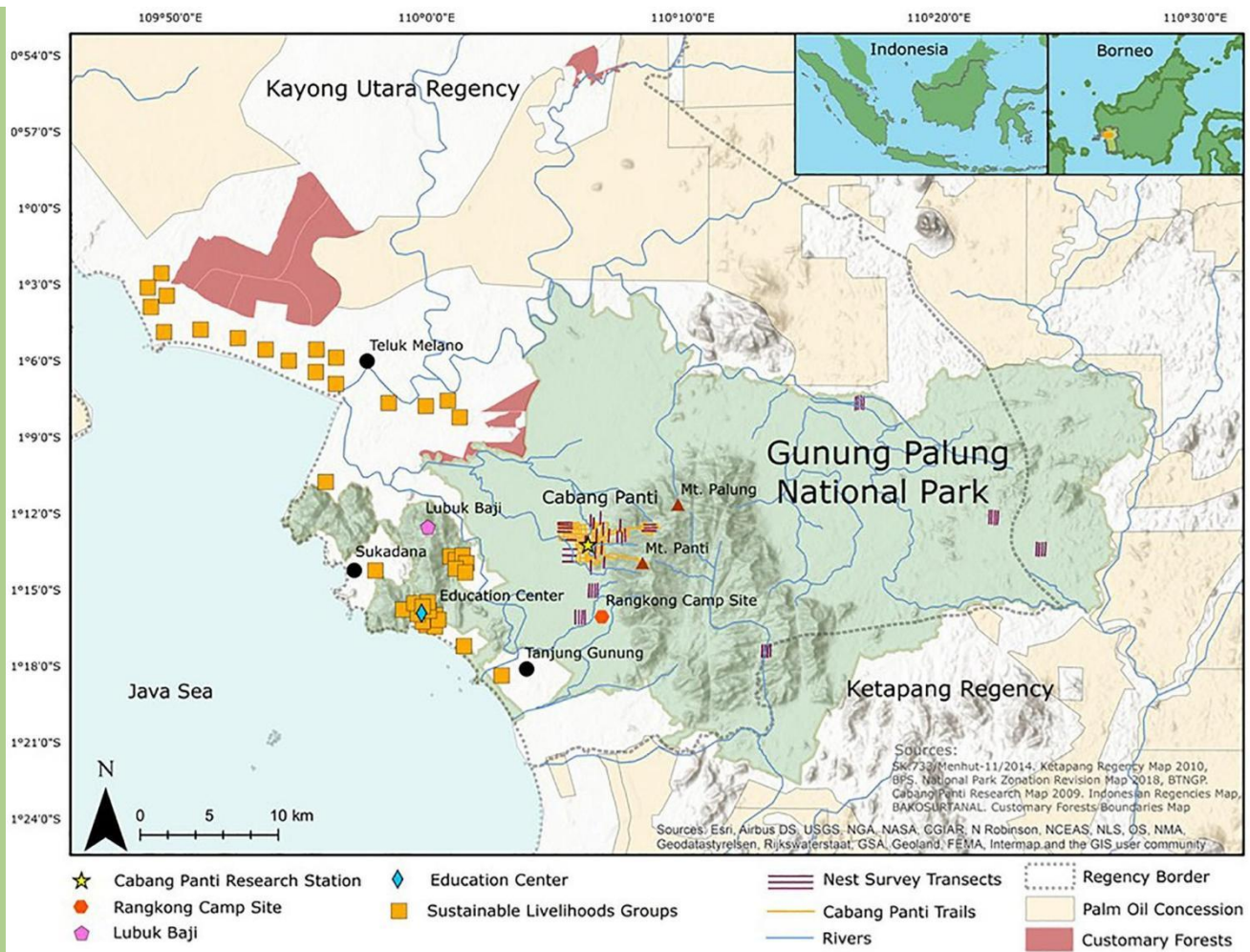


New publication out now!
GPOCP Executive Director Dr. Cheryl Knott, postdoctoral researcher Dr. Erin Kane, and Research Director Wahyu Susanto write about *Building Collaboration for Orangutan Conservation*. Read it [here](#).

Customary Forests: Biodiversity Hubs and the Last Home for Wildlife

By Erik Sulidra, Animal Protection and Rescue Coordinator

As of 2021, GPOCP has established seven customary forests in the Gunung Palung landscape. These seven customary forests can be divided into three areas: First, is the customary forest of Batu Barat Jaya with an area of 454 hectares; Second, is the 6,799-hectare Sungai Paduan protected forest area which contains four customary forests (Hutan Bersama, Alam Hijau, Kumbang Bertedoeh, and Banjar Lestari); Third, is the production forest area of Sungai Purang, which contains two customary forests (Simpang Keramat and Muara Palung), making up an additional 720 ha.



Map of the Gunung Palung conservation landscape, showing the location of our customary forests in pink. Figure from Knott et al. (2021).

To aid the management of each customary forest, GPOCP conducts biodiversity surveys, which have been carried out annually since 2016. The purpose of the surveys is to estimate orangutan population sizes, understand the diversity of other wildlife species (especially from mammal and bird taxa), and collect data on plant species with high conservation value, as well as plants that are a source of food for orangutans. The knowledge gained from these surveys helps to inform customary forest management plans.

Our most recent survey began in mid-2020, and fieldwork was completed by the end of last year. In total, the survey consisted of 17 transect lines, each one kilometer in length. All of the transects were located in peat swamps within the customary forests. Some of these locations are quite remote and difficult to reach. Hutan Bersama, for example, which is in the village of Nipah Kunung, has just two routes of entry, from the north and from the south. To reach the customary forest by the northern route, our survey team had to travel by boat for six hours along a small tributary of the Paduan River. The southern route would have been no less difficult to use, while traveling via a road. Then, our team trekked through an open forest full of ferns for another three hours before we arrived at our camping location.



The survey team travels by boat to the Batu Barat customary forest. During this expedition, the team was made up of three GPOCP staff members (front) and four Customary Forest Management Board (LPHD) members (back). Photo by Andre Ronaldo.

Since the completion of our fieldwork, we've been analyzing the data that we collected. During the survey we used methods similar to those used for the Park-wide orangutan [nest survey](#), and thus the results can be interpreted using the same methods. We estimate that the population of orangutans in the Sungai Paduan protected forest is approximately 33 individuals. The population estimates in the Sungai Purang production forest area are about 3 individuals. We were unable to confidently estimate a population for the Batu Barat forest, because we only saw one "class C" (old with all brown leaves) orangutan nest in our transects. We have plans to re-survey this location, using more transects to more conclusively determine whether or not this forest is suitable orangutan habitat.



Staff Botanist and Survey Coordinator, Andre Ronaldo, observes an orangutan nest using binoculars.
Photo by Erik Sulidra.

Between the three survey areas, of the more than 2000 individual trees recorded, 80% were orangutan food trees. This indicates that the potential food availability in the area is excellent for orangutans. We also identified three types of rare trees during the survey. Among them, "Keruing Belimbing" (*Dipterocarpus grandiflorus*) has endangered status, and "Meranti Paya" (*Shorea platycarpa*) and "Ramin" (*Gonystylus bancanus*) are both critically endangered.

We also identified 11 mammal species, other than orangutans, during the survey. These were the proboscis monkey (*Nasalis larvatus*), Bornean white-bearded gibbon (*Hylobates albibarbis*), red leaf monkey (*Presbytis rubicunda*), long-tailed macaque (*Macaca fascicularis*), sambar deer (*Rusa unicolor*), Bornean bearded pig (*Sus barbatus*), black-eared squirrel (*Nannosciurus melanotis*), tricolored squirrel (*Callosciurus notatus*), Prevost's squirrel (*Callosciurus prevostii*), giant squirrel (*Ratufa affinis*), and sun bear (*Helarctos malayanus*). These animals were identified either from direct encounters/sightings, visual evidence (such as foot tracks or scratch marks on trees) or auditory evidence (animal sounds/calls).



Some of the wildlife observed by the author included a proboscis monkey (left) and a blue-eared kingfisher (right). Photos by Erik Sulidra.

There were also quite a lot of bird species. There were 42 bird species recorded in the forest of Batu Barat, 74 species in Sungai Paduan, and 49 species in Sungai Purang. Observations of these bird species were carried out both on and off the transect lines. Five avian families were identified, which is an important indicator for environmental assessment. These were hornbills (*Bucerotidae*), woodpeckers (*Picidae*), trogons (*Trogonidae*), birds of prey (*Accipitridae*) and bulbuls (*Pycnonotidae*). We also saw a saltwater crocodile (*Crocodylus porosus*) along the river in Batu Barat village. This also indicates that the availability of crocodile food (fish, amphibians, reptiles, birds and mammals) is still quite abundant there.



A crocodile and two oriental pied hornbills, also observed by the survey team. Photos by Erik Sulidra.

These customary forests are an important habitat for wildlife, functioning as the last home for some species, amid the surplus of oil palm concessions, Industrial Plantation Forests (HTI), and mining concessions that overwhelm the region. In addition to hunting and the keeping of wild animals as pets, habitat destruction caused by illegal logging and forest fires is a serious threat to wildlife. When this survey was conducted, our team found several locations where illegal logging was carried out. To help combat this, the Customary Forest Management Boards (LPHD), which are located in each customary forest, conduct regular patrols throughout the forest areas. This not only protects wildlife, but also human life, especially those living around the customary forest.

Using Camera Traps to Study Mammals in Gunung Palung

By Rani Ferdianty, Student Researcher

Hi! My name is Rani Ferdianty, and I am in my final semester of university at the National University (UNAS) in Jakarta. At UNAS I am studying Biology because I really like animals and the living things around me. Apart from attending classes, I also help to manage two conservation organizations called the Primate Study Forum, "Lutung," and the Sea Turtle Study Group, "Chelonia." In these organizations, I've learned quite a lot, from various perspectives, about animal life in nature. I've learned about biodiversity, the distribution of primates and turtles in a location, how to protect the animals themselves, and how to educate the public about the importance of a balanced life, so that nature and humans can coexist on earth.



The author, Rani, traveling by boat, on her way to Gunung Palung.

Sri Suci Utami Atmoko, or Mba Uci as I call her, is my academic supervisor at UNAS. For years, she has dedicated her life to conservation, especially the conservation of primates. I really admire her for this. Wahyu Susanto, has also been a great mentor to me and taught me about his conservation work as the Research Director of GPOCP. Thanks to both of them, I have been able to travel very far from home, to an island that I had never been to before. Yes, the island is called *Kalimantan* (Borneo)!



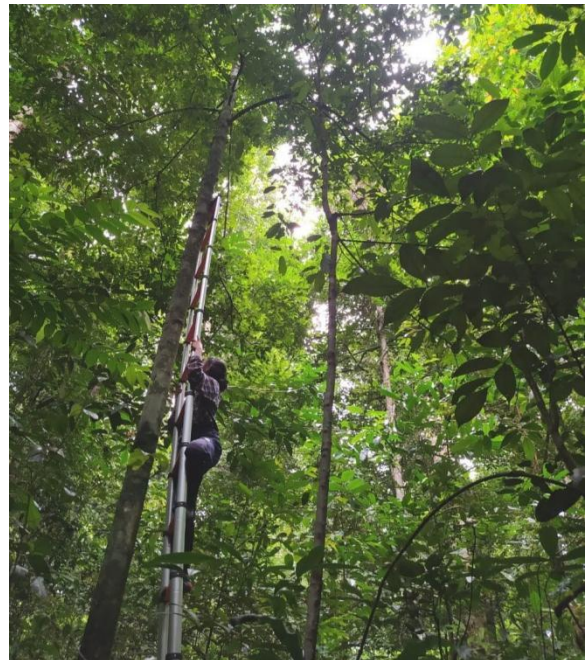
Rani sits next to Pak Tatang Mitra Setia, another one of her professors at UNAS and GPOCP research counterpart.

Since the first time I set foot on this island, I've seen many things that I regret to know have happened here – like the vast expanse of oil palm plantations I saw from behind the airplane window, and illegal

logging and forest fires that occur every year which make the soil lose nutrients and reduce its power to absorb water, causing natural disasters like flooding.

My undergraduate thesis research, which I am now conducting, is on the Diversity of Mammals in the Rangkong Area, in Gunung Palung National Park. The Rangkong area, located between Cabang Panti Research Station and Tanjung Gunung Village (see the map in the first article), has been subjected to lots of illegal logging. Therefore, I wanted to know how mammals adapt and live in these conditions.

At Cabang Panti Research Station, I met Pak Herman (who works on camp and trail maintenance, and as a research assistant), who has become like a father figure to me. He is very kind and considerate, and has helped me a lot with my research. Pak Herman has helped me to install camera traps and check them twice per month. I installed these camera traps in both arboreal and terrestrial areas. So far, I've gotten camera trap footage of mammals from 5 different taxonomic orders, with a total of 22 species found. The mammals captured consist of the Carnivora order, namely *Catopuma badia* (Bornean bay cat); the Primate order, namely *Pongo pygmaeus* (Bornean orangutan); the Artiodactyla order, namely *Tragulus napu* (greater mouse-deer); the Rodentia order, namely *Ratufa bicolor* (black giant squirrel); and the Scandentia order, namely *Tupaia dorsalis* (striped treeshrew).



Rani sets up camera traps on the ground (left) and high up in a tree (right) in the Rangkong area.

While at the research station, I've stayed in a room next to the *Air Putih* River. The river has clear water, and in it, there are big fish and white sand, surrounded by green trees. It is very beautiful. Every afternoon I sit on the porch of my room to watch a group of *Macaca fascicularis* (long-tailed macaques) perched on a tree on the opposite side of the river. I watch them while enjoying some warm coffee and the musical sounds of nature. During my time in Gunung Palung I've also helped to follow orangutans and collect samples of feces, urine, and fruit. I really like it when an orangutan mother and her child hang on to each other's body while eating.

I've thoroughly enjoyed my experience in the forest so far, and I'm excited to see what the rest of my time brings.

"A little progress each day adds up to big results."

- Satya Nani



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