Project Update: September 2019

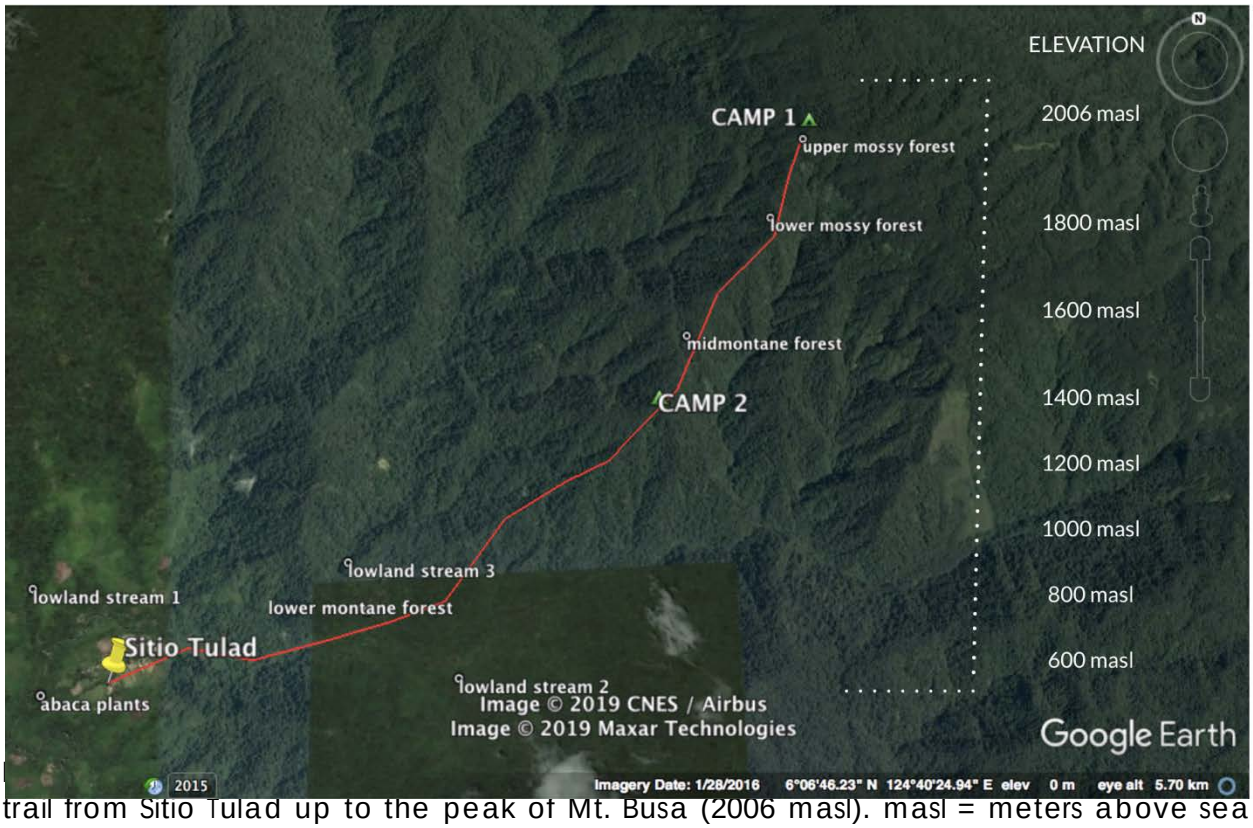
Summary
A total of 374 person-hours were spent for fieldwork between July and August 2019. My team was composed of one research assistant, eight main local field assistants, and other minor field assistants and porters. We managed to survey the lower montane, mid-montane, and the upper montane forests, as well as most streams at the immediate base of Mt. Busa. We currently have a tentative list of 54 species of amphibians and reptiles, which will be made available once the list is verified by experts. This research is done under the Wildlife Gratuitous Permit No. 23 issued by the Department of Environment and Natural Resources Region 12 (DENR-12).

Amphibian and reptile diversity of Mt. Busa, Southern Mindanao, Philippines: Species distributions along forest gradient.

Date of fieldwork
July to August 2019 (end of dry season and onset of wet season)

Field sites
For this project, Mt. Busa was stratified into three forest types: lower montane, mid-montane, and upper montane forests. Eight 8 x 8 m quadrats were established in each forest type, 24 quadrats in total. Each quadrat was extensively sampled for 1.5 hours by four individuals, a total of 6 man-hours per quadrat. Habitat variables were also

measured. Aside from quadrat sampling, opportunistic samplings were also done outside the established quadrat to maximize the inventory of amphibians and reptiles in Mt. Busa.



trail from Sitio Tulad up to the peak of Mt. Busa (2006 masl). masl = meters above sea level. Image source: Google Earth (2019)

At least 8 days were spent for the establishment of quadrats and sampling proper in mid-montane and upper montane forests and ten days for the lower montane. The lower montane requires more time since reptiles are more abundant in this elevation. Extensive opportunistic surveys were also done in lowland streams 1-3 and abaca plots near the village.

Key Activities Accomplished During Fieldwork

1. **Establishment of quadrats and measurement of habitat variables –** I and my research assistant primarily gathered the data for habitat variables for accuracy, and we trained select local field assistants to help us. The rest of the local field assistants helped in establishing the 24 quadrats, while others only served as porters.





2. **Diurnal and nocturnal quadrat and opportunistic samplings –** We had a separate team of local field assistants for quadrat sampling and opportunistic sampling to maximise the inventory given our limited time and to provide an opportunity for other locals from Sitio Tulad to join the project. Our main field assistants were men, but I also asked women to help me in doing opportunistic samplings to account for gender balance. In total, 374 person-hours were spent for fieldwork that resulted in the identification of 54 species of amphibians and reptiles in Mt. Busa.

3. **Processing of voucher specimens –** Select individuals were collected for vouchers. This was done following the terms and conditions set under the Wildlife Gratuitous Permit No. 23 issued by the DERN-12. Voucher specimens will be deposited to recognised museums in the Philippines for future use.

Major Difficulties Encountered

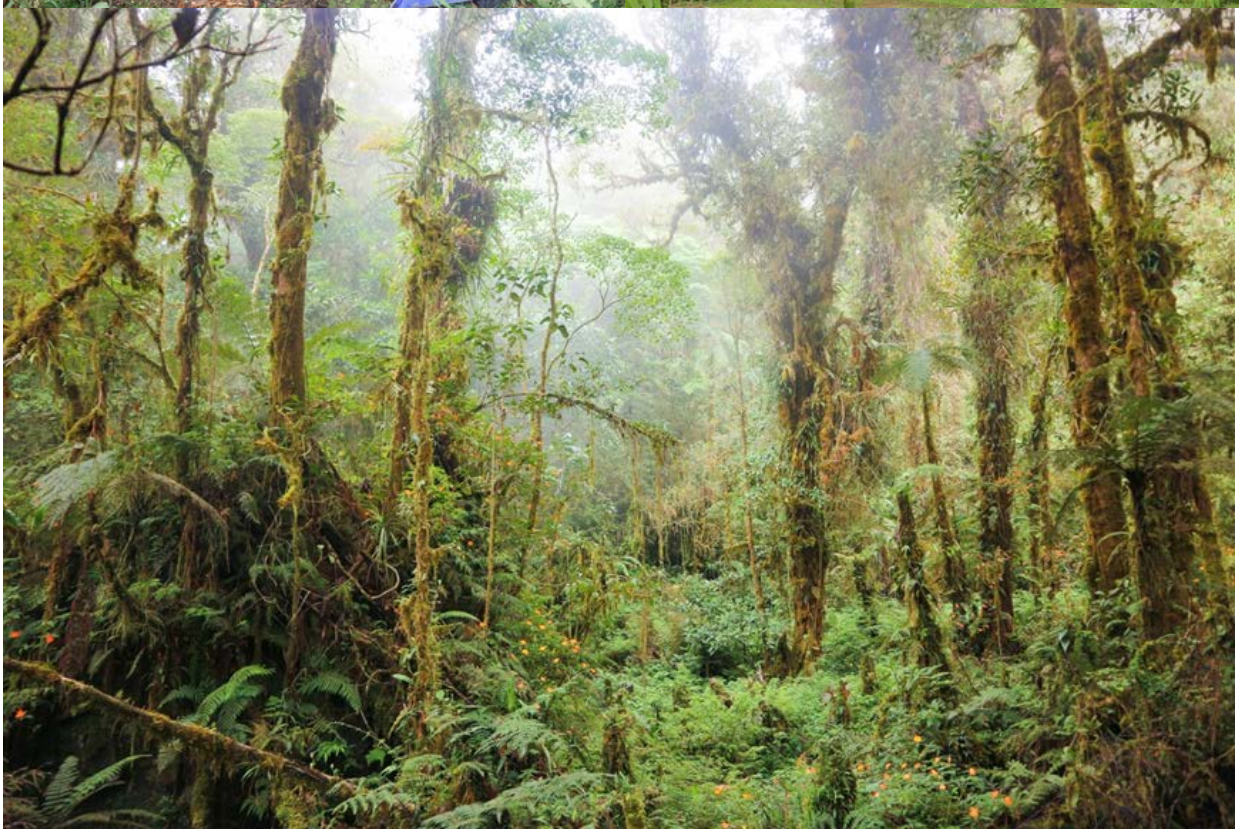
1. **The weather during fieldwork –** When we were at the peak in July 2019, we had to stop doing any field activities for 3 days which caused delays in our schedule due to heavy rains and strong winds brought by the low-pressure area that entered eastern Visayas. We could not descend as well since it would be more dangerous for everyone to trek down the very steep, slippery and rocky trails of the mountain. We couldn't also cross the two major streams at the base of the mountain because the water level was high, and the current was strong.

   We also had intermittent fieldwork schedule in the lower montane due to the erratic weather in Mt. Busa. I wouldn't let the team go on fieldwork in heavy rains for safety and practical purposes.

2. **The road going to Sitio Tulad, the nearest village from Mt. Busa –** Travel to Sitio Tulad was arduous due to the very muddy and rocky dirt road, especially during the onset of the wet season. The travel from the Kiamba town proper to Sitio Tulad lasted 5-6 hours, depending on the weather, and only a specific type of motorcycle could manage the travel. This posed logistical difficulties and additional expenses on our part.

3. **Budget creep —** I was unable to provide a line budget for food in the original project proposal. The local field assistants also didn't have any adequate field gear or materials to use for our fieldwork in Mt. Busa (e.g., tents, sleeping bags, hiking bags, etc.), so I adjusted the budget to accommodate their needs and the food. Some field materials were donated to the tribal chieftain for community use.

Some Photos from the Field




Project Leader: Kier Mitchel E. Pitogo
Research Assistant: Aljohn Jay L. Saavedra
Local Field Assistants (Main):
Lorenzo Sinandon
Dinis Usong
Romeo Katil
Fedin Sulan
Roger Derilon
Junjun Dagang
Jessie Gayang

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