Overcast this morning and muggy. Up early I splurged from my bags of granola and had Johan’s wife make me a pancake with fried bananas for breakfast and a strong cup of black tar coffee. This fueled my exploration into a section of forest accessed by walking along the road north several kilometers before heading up the mountain. We were passed by loud motorcycles and Isuzu trucks overloaded with supplies heading through the park to Aceh. Udin seemed tired this morning, moving with less energy and he
of turned off the road and entered the forest along a barely distinguishable trail that led up the mountain. It had rained last night and the forest was saturated, giving off a fragrance wet leaves and floral blossoms. Found a beautiful understory tree filled with rose-like flowers, then across the river discovered an orangutan feeding on the top of a large wild durian tree, the scene set against a backdrop of mountains and forest. We walked alongside a small cascading stream that flowed through a narrow ravine covered with wild banana, then ascended a steep slope towards an open understory of a ridge covered by huge buttressed dipterocarps.

It was humid, and I was in deep thought when suddenly startled. A loud, growl-like bark pierced the forest up the hill 50 meters (160 feet) away from us. It continued for several minutes and Udin whispered ‘rusa kecil’, a muntjac deer’ stalked by an unseen predator,
possibly a golden cat or a clouded leopard. The muntjac is a small deer with canine teeth, and feeds on fallen fruits, leaves and buds, ground dwelling bird eggs and carrion. Males acquire territories that they mark with scent markers, preorbital glands (located on their face, just below the eyes) that they rub on the ground and on trees. They also mark by scraping their hooves against the ground and scraping the bark of trees with their lower incisors to warn other muntjacs of an occupied territory. Males will fight to protect their territory to ensure sufficient food, and during the rut where they use both their short antlers and canines as weapons. If a males are not strong enough to acquire a territory, they weaken and become easy prey to cats. During the rut, territorial lines are temporarily ignored and overlap while males roam constantly in search of a receptive female.

No sign of the deer, we walked quietly as the sounds of the forest were in rhythm of noisy rattles from cicadas, and the occasional distant call of the Argus pheasant. The now opened up under giant buttressed trees bordering a narrow trail that followed the
We stopped to listen for any wildlife and heard a branch snap with a loud break in the canopy 50 meters away. We approached a falling shower of leaves under a female Orangutan with a little one feeding on fruit 20 meters above. Continuing up the ridge we heard the honking of a rhinoceros hornbill and managed to approach it feeding in a fig tree. They are amazingly colorful birds and huge in size, with bright orange crests above the beak. Heard the crested serpent-eagle, but the chorus of bird songs were unknown to me and Udin. We also heard another Argus pheasant male calling in the distance on its lek, but by the time we carefully stalked the bird towards its call it was gone. These males are very wary of predators.

Continued to ascend a narrow ridge parallel to a large cascading stream below that passed through the lower forest camp we had visited the day before. We were upstream several kilometers and the forested ravine had narrowed. Found a colorful group of begonias, and a large tree with a smooth orange-red to rust colored bark. Two day-flying bats flew by us along the narrow trail, the size of giant moths heading down river. They were most likely cave nectar bats *Eonycteris spelaea*, vital pollinators of the durian tree as there was a limestone karst shelter across the stream that we would explore later where these bats roosted. Limestone karsts are sedimentary rock formations that consist primarily of flood deposits of calcium carbonate formed by calcium-secreting marine organisms (e.g., corals and brachiopods) before tectonic cataclysms lifted them above

*Above: flying fox fruit bat, karst bat cave by stream*
sea level. Over the years, the softer sediments covering these karsts were removed by mechanical and chemical weathering, creating both above ground and network underground caves.

Came across several old Orangutan nests and found one young male feeding in a tree. I was amazed at the density of wild orangutans here, greater than Sabah Borneo as Gunung Leuser has a greater variety and density of fruiting trees. Towards lunch we descended the steep slopes of the ravine to cross the deep cascading stream, which proved difficult in the very swift current. Rested on a nearby small sandbar filled with butterflies: orange and white pierids, bright yellow Sulphurs, and small blue hairstreaks sipping water on the few small sandy patches between boulders and rocks.

Downstream we found the limestone karst cave, and entering the dark refuge for bats in the stench of ammonia found several hundred of what I thought were the insect-eating Hardwicke’s woolly bats *Kerivoula hardwickii*. Continued descending the large stream for several kilometers, then just below the hot springs crossed back over to the left bank where the overnight camp was and ate lunch. It was a good day, and I was tired, but very relaxed. Lots of leeches since it rained heavily last night, but these socks worked as they would have to crawl up my pants to gain entry where my shirt was tucked in. I could easily intercept them before they got a meal. Returned to the bungalows by 3:30PM.

Sat by the Alas river, relaxing, and watched the fog and clouds move across the mountain forest. Journaled, and took a moment to look up again at the mountains and spotted six Smooth-coated otter *Lutrogale perspicillata* playing along the opposite bank of the river. The share the forest rivers with Asian small-clawed otter *Amblonyx cinereus*. Wonderful to see them porpoising together in the fast current, then playing along the bank, communicating with each other as otters do with high pitched chatter and whistles. Smooth-coated otters are social and hunt in groups, and spend the
night in dens dug in dense vegetation, under tree roots, or among boulders. They use scent to communicate both within the otter species, and with other animals. Each otter possesses a pair of scent glands at the base of the tail which are used to mark land or objects, such as rocks or vegetation, near feeding areas in a behavior called sprainting. I have only seen river otters in Olympic National Park in my home state several times, so to see them here was truly a privilege.

Spent time with Johan tonight and learned of his experiences in the past 10 years in deep forest, and said he learned his skills of forest survival from his 95 year-old father that I met that evening. In the past he had taken a group of 4 tourists from Spain up the same creek I had explored today, but continued and crossed over the ridge at the top to the next watershed. As they ascended a second ridge in the montane forest, and were startled by a tiger approaching them in a heath clearing ahead. They all panicked and ran, including Johan who claimed he leaped the steep edge and got caught in the top of a conifer tree. The others also went over the same side but disappeared into the cloud forest thickets. After an half hour they ended up calling each other and regrouped. They terminated the trip and headed back.

He continued with another story that in 2010 he had guided 4 British tourists, 3 men and 1 woman to the same drainage, but ascended higher a different ridge to the west of the mountain. Towards late evening he picked a camp on the ridgeline on a treeless elephant path where he decided to place their camp. It began raining just after dark and they slept early in their tents. Within a few hours they were woken up with a loud noise, and thought a tree had snapped in the rainstorm. They turned on their torches and shown the light outside, discovering a group of elephants in the path trumpeting, blocked by their camp in the way. They were hesitant to pass. The elephants waited until morning until they broke camp just before dawn. I found this story hard to believe, as Asian elephants are notorious for charging people and killing campers in their tents throughout SE Asia. But it was interesting to hear that he encountered elephants in Gunung Leuser.
Johan also shared he had seen a clouded leopard at the same place where we had a lunch break today. He was with a group when they heard bearded pigs grunting in the ridge just above camp. He ran up the hill 10 meters to see what was going on and saw a clouded leopard 60 meters away and jumping onto the back of one of the pigs. The cat seized its throat and killed it in front of all of them. But then the fiction started when he also said he had been bitten 5 times by snakes, two cobras, two pit vipers, and one unidentified snake. His father was with him, and quickly gathered certain leaves and plants for an antidote to give to him, saving his life. Johan is such an interesting guy, and I enjoyed his company, but had to separate exaggerated fiction from truth.

The next morning more rain, then by 8 am it let up. Udin and I headed to the forest again, wet and drenched from the rain. This time the trail was really slippery and each step was giving way on we clay under a thin layer of leaves. And there were leeches everywhere. Saw lots of fruits on the forest floor cast down by Thomas monkeys and Orangutans. Had lunch by the swimming hole of the base camp, and saw a white-crowned hornbill, a pair of bright yellow orange homopterans (insects), wild durian fruit bitten open by orangs laying on the forest floor (orangs take leaves and fold them using them as gloves to pick the durian) and oak nuts, a lithocarpus or castanopsis species found in northern California. A few Thomas leaf monkeys scolded us with their grunts while feeding and heard siamangs calling across the river. Nice light on the mountains and forests as clouds were moving in and out, creating dark moods where it was raining higher up. We ended up coming back by the clearing just above the bungalows, watching it rain on the river while the sun broke through on us.

Felt good to be back at the bungalow, took off my shoes, and killed a leech that had hitchhiked on my leech socks. Watched the light move with clouds while it continued with rain showers in the mountains across the river. So quiet and peaceful listening to the river. Enjoyed watching the clouds move in and out of the steeply forested slopes of the mountains across the river. I treated myself to a change from tinned sardines and crackers to a dinner made by Johan’s wife: a few small pieces of fried chicken (a skinny one at that), and fried potatoes. I had Johan's family join me. The young men that hung out with Johan and his son offered to do the Gayah traditional dance for me, a Saman
of a long time traditional Muslim song in the Gurah language. The young men lined up in a row sitting cross legged, then sang while swaying with head movements, and hands slapping legs and chest in unison. The songs were stories of flowers, love and the village. Awesome to see. Then they wished me happy birthday. I felt filled and loved, by my family, and by new friends here in Ketambe. I had so missed Djainiaty, kids, my church brothers.

Johan wanted to take a night walk with me so we left about 8:30PM after it stopped raining. So awesome. Pitch dark out we followed the road hearing the chirps, croaks, trills, whistles and calls of frogs, crickets, katydid, and a plethora of insects. Found a large katydid, and several rana species of frogs, pointing our torches into the pitch-black canopy and the forest floor. But no civet cats, slow loris, or tree frogs were seen. I loved watching the fire flies glow and flash throughout the forest canopy. Peaceful, alive with life. A good evening. Tired when we got back to the bungalow. I read Psalm 139 and went to sleep with great peace and Gods joy in my heart.

I had been in the forest so much every day, I decided to take a day off and go on my own on Sunday and explore the trails on my own. Rained hard all night but today was my day of rest. The Alas River is very high. Early I prayed and read Gods word. I hoped to get ascend far enough to reach the ridge Johan had talked about. Entered the forest on a trail I had been on before, and soon came across a pair of hornbills honking like geese, roosting in a large tree next to me. They then flew off, with large wings and loud wingbeats, like a small eagle. Filmed an orangutan high up in the trees, a female with young eating fruit. Heard Siamangs calling to the north near the canyon of the Alas River but couldn’t find them. Took a side trail that led to the forest canyon and found Thomas Leaf Monkeys feeding on flowers high up in a tree, but they were below me along a steep slope of the forested canyon. Ascended into the forest, filled with a day of resting, saw signs of the beruang or honey bear, pigs, and a Sumatran trogan. I thankful having experienced the forest here, yet wanted to go in deeper into the remote
watershed, but it hadn’t worked out. The montane forest and the summit of Gunung Leuser would have to wait until another day. I hoped to return soon.

Coppersmith barbet, Blyths hawk eagle, black and yellow broadbill, great hornbill, blue nuthatch, barred eagle owl, white breasted kingfisher, Rajah scops owl, sunda owlet, scarlet rumped trogan, Sumatran trogan, black hornbill, black throated sunbird, rufous woodpecker, silver eared laughing thrush
Flame backed woodpecker, red pitta, chestnut capped laughing thrush

Cynthia moth, katydid, praying mantid, army ants, Carpenter bee

Sumatran rhino WCS camera trap, Captive Sumatran rhino female, Way Kambas Rhino Center Sumatra

Sumatran rhino, captive, Way kambas Rhino Ctr, Slow loris, Tasier
Twin barred snake, oriental whip snake, twin barred flying tree snake

**GUNUNG LEUSER PEAK**

Gunung leuser Summit with tank oaks, chestnut and podocarp conifers

Mt Gunung Leuser 3466 meters, (11,482 feet) with montane trees and shrubs similar to Mt Kinabalu, Borneo, Mt Tahan Taman Negara Peninsular Malaysia, and Mt Wilhelm, Papua New Guinea.

Two montane alpine species seen also in Peninsular Malaysia, and Mt Kinabalu in Borneo:
Rhododendron spp, Pitcher Plant Nepenthes spp from near the summit of Gunung Leuser, Gunung Leuser from Alas River
Alas River divides the eastern and western half of Gunung Leuser National Park. This is the only 5 kilometer section of River that has not been logged off, cleared, and villages built in the National Park corridor. The villages and farms should be removed along the road to reconnect the two halves since the road was built 25 years ago.
Alas River, Gunung Leuser National Park, the only remaining 5 kilometer area not cleared and farmed within the national park boundaries meant to connect the east and west halves of the park.