

Justin Brown
Giant Pangolins in Gabon
April 3rd-20th, 2022

I was invited by Dr. David Lehmann (most of you know him as the guy working with mandrills in Gabon) to participate in a scientific mission to capture and tag a wild giant pangolin in Lopé National Park. The mission was set to last approximately two weeks, and David was hopeful that two new pangolins could be found and outfitted with GPS transmitters, and that we could recapture a pangolin that he had tagged a year prior. The team consisted of David, his trusted wildlife veterinarian (Michel Halbwx), three trackers, a woman working on her PhD, a guy working on his master's degree, an eco-guard, and myself. The team was fantastic. The mission started the day before I arrived (it took me several days to

get there from the US) and straight away they found a young female giant pangolin. She was David's ninth capture, but only the third female, so the mission was off to a great start. She weighed 27 kilograms and Michel determined that she was just reaching the age of sexual maturity. They found her in the territory of a known large male and think that she was there to mate with him. One pangolin down, two to go.

We spent the first six days after my arrival walking and walking and walking. We left each morning at 6:00 or 7:00 and got back to the research building late in the afternoons. The days were long and tough. Basically, the trackers and David would disperse into the forest and we would follow in a line behind them. They moved at a quick, steady pace, going up and down hills, crossing streams and savannas, climbing over boulders and fallen trees, hacking

through thick vegetation, and, most crucially, dodging elephants. Their aim was to find pangolin tracks from the night before and to follow them to the burrow. The tracking process is very difficult, however, because pangolins meander a lot, almost never walking in a straight line, and they can easily travel five kilometers in one night. In any case, toward the end of our sixth day of searching at close to 5:00 pm, David found some fresh tracks and the trackers immediately started scouring the area. After we had been waiting for about 20 minutes for news from the trackers, we heard them calling to us with the hooting noise that indicates something has been found, and to come quickly. I was bursting with anticipation. We got to the spot and David gave me a thumbs-up: a huge male pangolin was sleeping peacefully in a burrow. David let me climb inside the burrow and there the pangolin was, totally zonked out on his back.

Giant pangolins enter a weird trance when they're sleeping and aren't easily disturbed, so he didn't even know I was there. Because it was so late in the day, we had to hurry back to home base to retrieve Michel's gear, in order to be ready for the capture at the burrow when the pangolin decided to emerge. Michel prefers to use gas for sedation because it is safer for the animal, but doing so increases the amount of stuff he needs at the capture site. We got the stuff, loaded up the vehicle, and drove as close as we could before having to walk the rest of the way. Two trackers stayed at the burrow while we were gone just in case the pangolin came out early and started to wander off. They were going to follow it the best they could in such a scenario.

Fortunately, our timing was perfect. Right after getting everything laid out and positioned at the burrow, the pangolin bumbled out, and I think we were all in shock

at the size of the animal. It was massive! David quickly threw a net over it, wrestled around with it for a bit, and then Michel administered a shot of anesthesia to subdue the pangolin for the gas. Because of its size, the pangolin fought a lot harder than the female that had been captured, but David and Michel finally managed to get the cone of gas over the pangolin's face. They subsequently found out why the pangolin had such incredible strength: it weighed 42 kilograms, four kilograms more than the heaviest pangolin they had caught before! It's the biggest giant pangolin ever recorded. Once the gas was flowing, everything went very smoothly. Michel did a basic health check (removing a few ticks along the way) and took tissue, fecal, and blood samples, while closely monitoring the pangolin's vital signs. While he was doing these things, David attached the transmitter to the scales at the base of the tail. He drilled three holes

through the scales and used nuts and bolts to secure the transmitter. Securing a transmitter to a giant pangolin is a challenging proposition, as it is an animal that just crashes through the forest and often sleeps in tight burrows. But David has clearly figured out the best method because the pangolin he wanted to recapture was still wearing its transmitter after over a year! After everything was done, we took a few pictures and Michel reversed the effects of the anesthesia injection and then turned off the gas. The pangolin stumbled around for a few minutes while regaining its balance and then disappeared into the forest. What a cool experience! I told David it was a top-three mammal observation for me. Best of all, I got to name the pangolin! Being that it was so strong and powerful, "Thor" seemed fitting.

On my third-to-last day, we set out to find a large male pangolin that David had tagged

in early 2021 (unfortunately, David wasn't able to go because he had contracted malaria). Its transmitter was no longer providing GPS points, but the UHF component was still working, so we used telemetry the night before to narrow down its location. The recapture was important for two reasons: to get the tag and have it refurbished with a new battery, and to retrieve a small device implanted by Michel for the purpose of measuring body temperature. The belief is that the pangolin's body temperature drops significantly while the animal sleeps, thus explaining the trance-like state. Almost immediately upon entering the forest, the trackers started making the "come-quickly" hooting noise. We ran to the spot and there was a giant pangolin (one without a tag) moving away from us through some grass! No way! It was 8:00 am! As we began to follow it, the trackers yelled for us to run because there

was an angry elephant nearby. The elephant started trumpeting and would not budge from its position. The trackers kept trying to go back to the place where we left the pangolin, but the elephant was very stubborn and they had to run away each time. Watching them approach and then retreat, and approach and then retreat, and approach and then retreat, was actually pretty funny. Damn elephant ruined everything, especially since we heard from the trackers that the pangolin had a juvenile with it! The juvenile was already out of sight when Michel and I arrived at the sighting. Regrettably, we just had to move on and continue our search for the tagged pangolin, which we ultimately failed to locate.

We spent my final two days looking for the pangolin with the old tag. Part of the difficulty was that the UHF component had been programmed to only send signals at

night in order to conserve the life of the battery, and David wasn't able to modify that programming remotely from his computer because the battery had grown too weak for transmission of the modification. And searching for a giant pangolin at night is very dangerous due to the omnipresent elephants. As I mentioned earlier, we were using telemetry to know the general whereabouts of the pangolin for the following day's search. The telemetry kept pointing us in the direction of the same area every day, as if the pangolin were barely moving around. It didn't make much sense for him to stay in one small patch for three consecutive nights because David's work has shown that giant pangolins can easily travel several kilometers in the span of one night. But, at the same time, David was not getting a "mortality signal" that indicates the animal has stopped moving and is likely dead. In the early, early morning of my last day (at

4:30 am), David and one of the trackers went out to find the pangolin before the UHF stopped for the day. He didn't find the pangolin, but he was able to further localize the search area. When the sun was up, the whole team went to that area, which essentially ended up being a massive tree at the edge of the forest with many old burrows at its base. After some digging in these burrows, one of the trackers discovered the tag, but no pangolin. It had fallen off, and wasn't signaling mortality for some unknown reason. The good news was that David could get the tag refurbished instead of having to buy a new one (which costs about \$2,500), and that the pangolin was seemingly alive and well somewhere, but the bad news was that Michel couldn't get the data from the device that measures body temperature. Despite failing to recapture this pangolin, the mission was a huge success. With each new tagged pangolin, David is

getting invaluable information about a species that has barely been studied. It's really pioneering work.

David gave me permission to say that he will be offering the experience that I had to other tourists under some strict conditions: no more than two people at a time will be allowed to participate; a very high level of physical fitness will absolutely be required; a significant financial contribution to the project will have to be made (in the thousands); and an understanding that David and his team will be there to work and not take care of anyone. The fitness requirement can't be overstated. I'm very fit, and can hike and hike and hike (several people who use this site can attest to this), and yet there were a few moments where I had to push myself. If someone can't keep up, David won't wait on him/her. He/she will be excluded from the searching process and will have to wait at

the research building. As you all know, the giant pangolin is extremely elusive, and to find one requires covering a lot of ground. David's plan is to do two or three pangolin missions per year. If you're interested in participating, contact Guillermo (aka Willy) at guillermo.casasnovas@middle-africa.com.

You can see my videos of the giant pangolin on my YouTube channel:

https://www.youtube.com/channel/UCqHcMc_YH8BPPkEMFnjNI2Q