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Elie Goldberg

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Winter Term in Belize

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By Elie Goldberg

....Sneeze...

....Sneeze...

Something had irritated my sinuses. "That's the Jo-Grind," Chico told me, struggling to speak through his giant smile. The Belizean sun reflected off of his golden tooth.

"And what's the 'Jo-Grind?" I asked.

At this point we were three miles into the transect, our observational hike through a jungle in Belize, which is a country located on the northeastern coast of Central America. The jungle remained at constant density, not growing thicker or sparser. The morning sun was quickly transitioning into the notably more powerful midday sun, and Chico was looking less weary with every stride. For Chico, this was just another walk in the park — no sweat, no constant need for water, no fatigue — shocker.

"The Jo-Grind! Elie! How you not know the Jo-Grind... It's, you know. That guy, man."

I could already tell that this was going to be one of those lessons in Belizean slang, which took Chico 40 minutes to work through using his Spanglish vocabulary.

"Now you will know. The Jo-Grind is always around," he continued, "he's the one that steals your lover from you. That takes them when you're gone. When you're away in the jungle."

"Why would someone sneeze when the Jo-Grind takes their lover?" I asked.

"You know how if your kid gets hurt or sick but you're not there, you just feel it. You just know. Its the same with the Jo-Grind. When the Jo-Grind gets close to your lover, he sends you a sneeze! That's the Jo-Grind!"

I couldn't contain my laughter. His blank smile was the best part — he was completely unaware of my confusion. It was clear that he felt his explanation had been rational and sufficient.

Our laughter was only a momentary escape from the harsh reality before us. We had stumbled across another fallen mahogany tree. Not fallen — butchered. This one was much taller than our first of the morning and just as thick, about three feet in diameter. Yet, bizarrely, no parts had been hauled away to make furniture for naïve customers. Sliced through with just one staggered cut, indicative of a hand held chainsaw, the mahogany just sat there, felled but otherwise untouched. Why? Perhaps for fun, or out of arrogance, or maybe just out of boredom.

The specific project I was helping Chico with, however, was more concerned with investigating the poaching of small mammals and birds than illegal logging. While the Chiquibul Rainforest of Belize faces innumerable threats illegal logging, poaching, cutting of specific plants, strip mining, etc. — there are very few organizations working to protect it. Consequently, one NGO, Friends for Conservation & Development, with which I volunteered this past winter term, must cautiously allot their limited time and resources. This translates to about six field researchers working two weeks each month. The NGO's only active field project is Chico's, concerned with investigating the illegal poaching of specific birds and small mammals.

About twenty minutes later, we heard a rustling sound. Its direction of origin was unclear.

Chico signaled for me to get down and be quiet.

This is the moment in time where your mind begins racing with questions. You are 100 miles into one of the densest, most remote, and biologically diverse rainforests in the world. You are accompanied by just one other fellow

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researcher. You hear leaves crunching. The possibilities are endless and hardly limited to just animals.

You know that it's most likely a raindrop, a tiny mouse or swallow, or a fallen branch disturbed by the wind. But another part of you knows it could be something less innocuous. You instantly look straight up into the canopies, following the sound, searching for movement. Howler Monkeys? Scarlet Macaws? Toucans? Coati? But then the movement seems like it's coming from behind you, closer to the jungle floor. You glance at Chico to see if he's been any more successful at triangulating the sound — he usually has been.

Chico stared directly into the heart of a bush, picked seemingly at random, about ten feet away. He immediately filled one cheek with air, hit it with his fist, and forced the air to come out of his lips making a hilarious spitting sound. He did this over and over again. For a split second I thought he might have lost it.

After sitting quietly for about a minute, a few shapes begin to move closer. As they shift into focus, I immediately recognize them as a group of collared peccaries, which bear a striking resemblance to Pumba, though they are quite a bit hairier.

While Chico continued to make his strange Pumba-calling spit-sounds, I blissfully sit and observe as a family of eight peccary waddle closer to investigate.

I take my pen out of my shirt pocket. Species – Collared Peccary; Abundance – 8; Animal Azimuth – 378°; Sex – Males & Females; Activity – Foraging; Method – Direct Sighting.

The Chiquibul Rainforest is about 500 square miles in size, which occupies about 7.7 percent of the mainland of Belize. This rainforest is home to hundreds of discovered and undiscovered Mayan ruins, the largest cave system in Central America, and countless species of mammals, birds, insects, amphibians, and flora – many of which are now endangered. A few parts of the Chiquibul still have not been fully explored, and new species are constantly being discovered. Just last year, a neverbefore-seen species of grasshopper was identified by a team from the University of Illinois.

About six months ago, Friends for Conservation and Development (FCD) began functioning as the main supervisor of this Belizean rainforest. Working alongside the Belizean Defense Force, the Belizean Forestry Department, and other government affiliations, about twenty people (1fifteen in an office and six in the field) struggle to protect 500 miles of threatened wildlife and forestry. The help that FCD receives from the Belizean government, specifically armed troops and money, are irregular and unreliable.

Two hours later, we completed our long hike back to the Las Cuevas Research Station. The research station is a complex of about ten small wooden buildings - complete with living quarters, a small laboratory, a kitchen, and a tool shed. Running water is supplied by a beautiful on-site cave, which is part of the largest cave system in Central America. FCD took over the research station about seven years ago, when its previous owner passed away. Las Cuevas greatly benefits from visiting researchers, students, and tourists. Given their minimal manpower and funds, volunteer trips can be enormously impactful and helpful to the cause. Starting this spring, FCD will continue their scarlet macaw monitoring program. Through this program, researchers climb hundreds of feet into macaw nesting trees, gather research on macaw mating progress, and try and protect the chicks from being stolen for the Guatemalan pet trade.

As I crawled up the stairs to our kitchen building, I immediately recognized the increasingly familiar lyrics of "Tú estás aquí" by Jesus Romero, the one CD at the research station. Richard and Boris were already kneading the tortillas and boiling the beans. Chico and I sat down on the porch and began the terribly difficult process of allowing the warmth of the afternoon sun, sounds of the jungle, smells of fresh tortillas, and the hilariously corny Hispanic church music wash over us, as another exhausting day of fieldwork came to an end.

Editor's note: Rafael Manzanero, the director of FCD, will hopefully be visiting Oberlin in the future to give a lecture on the work of FCD and meet with students about possible research and volunteer opportunities. Be sure to look out for his upcoming lecture!

Science and Society

By Anna Dardick

Decades ago, a doctor withdrew a sample of endlessly replicating, cancerous cells from Henrietta Lacks without her consent. Today, these HeLa cells predominate in lab studies and have resulted in a myriad of scientific breakthroughs and profits for pharmaceutical companies and academic institutions, while Lacks' family languishes in poverty. Even after a recent bestseller brought the HeLa controversy to light, this year, a scientist sequenced the genome of the cell and published it on the internet, essentially exposing Lacks' (and her family's) genetic information without any permission. The sequence was eventually removed, but the question remains: Does scientific advancement justify the elimination of human and social concerns? The irony is that many scientists pursue cures for devastating diseases to help people, while often taking advantage of HeLa cells or, as was common through mid-20th century, of test subjects. The more meaningful question may be: How can we make scientific advances while taking social histories and structures into consideration? I argue that science is most influential when it takes the human element into consideration, whether in the development of knowledge or the communication of said knowledge to a general audience.

In the United States, we tend to consider science as "truthier" than other truths. I think that we should critically review that assumption — often, as in cases of unfolding diseases, community and individual knowledge should be equally considered. Science is a way of knowing, not *the* way of knowing. Science is a tool that can be used for erasure of human willpower and knowledge (as in the case of Henrietta Lacks), or may be wielded to empower society with another mode of understanding.