

This summer, I spent five weeks in the Central Plateau of Haiti, continuing research that my peers and I began last summer and following up on Sewanee's long-term aid project, Zanmi Kafe (Partners in Coffee). Sewanee students, led by Dr. Deborah McGrath, have been working in Haiti for several years to combat deforestation. Dr. McGrath spent eight years building relationships with farmers in the village Bois Jolie, which led to a partnership with Sewanee and Zanmi Agrikol (Partners in Agriculture). The program provides crops, such as coffee and fruit trees, to the Haitian farmers to incentivize them to build an agricultural ecosystem, which will in turn promote biodiversity and improve their farm's health, as well as absorb a larger amount of atmospheric carbon dioxide. This carbon absorption is called carbon sequestration and is performed by large trees, such as the mango, avocado, and mahogany trees that Sewanee distributed last summer along with 13,000 coffee seedlings. Zanmi Kafe pays the farmers a carbon fee annually, comparable to the price of a bag of charcoal (a primary reason for deforestation in Haiti) as motivation to keep the fruit trees, rather than cutting them down for immediate profit. These actions will continue for the next few years until the coffee is old enough to start producing berries and the fruit trees are large enough to provide protection for the coffee, which requires shade to thrive. All of this is meant to ameliorate deforestation and provide long-term income to the villages Zanmi Kafe is working in.

My responsibilities included conducting an insect biodiversity survey on fifteen farms in the village Bois Jolie, as well as working with and directing three Haitian agronomy students from the vocational school Centre de Formation Fritz Lafontant (CFFL). These students' collaborative efforts will help them graduate from their school after a final project, not unlike some of Sewanee's major programs. We continued the insect survey from last year, with a

greater focus on ants, as ants play a major role as either pests or pest control on farms. In addition to this work in Bois Jolie, we began taking preliminary steps to prepare another village, Morne Michelle, for a similar coffee and carbon sequestration project. This involved getting to know the farmers as well as helping to construct a pepinyè, or nursery, for the newly planted coffee and fruit seedlings.

A typical week in Haiti included a variety of day to day activities. We left early every Friday morning for Bois Jolie and had to carry our sleeping supplies, scientific equipment, food, and water on our backs and on mules. We conducted the biodiversity survey on three farms per trip. On each farm, we laid down three transects, each twenty meters long, and put an in-ground trap, or pitfall trap, in at zero, ten, and twenty meters to catch ants. We also put out sheets of paper with four types of bait (canned meat, tuna, peanut butter, and honey) near each trap. The different baits helped attract different groups of ants, as not all ant species eat the same comestibles. The ants at these bait traps were counted every fifteen minutes for an hour, and then were collected and preserved for later identification. The pitfall traps were collected after 24 hours and all insects found in them were also preserved. The rest of the week was spent counting and identifying all the ant samples, which took a surprisingly long time per farm, and organizing all of our data in a spreadsheet. We also met with the CFFL students a couple times per week to help them develop their project presentation and to plan for future trips to Bois Jolie. We also took about one trip a week to Morne Michelle, in which we would participate in the construction of the pepinyè, or would help fill pots with dirt and coffee seeds in an enormous village gathering called a kombit.

Having been to Haiti three times at this point, I'm proud to say that, while I'm by no means fluent, I can proficiently speak Haitian Creole. This has absolutely opened up a new world for me. From going to the marketplace for fresh fruit to getting to know the students and farmers I work with on a deeper level, I am truly grateful for the opportunity to meet new people and participate in cultural experiences that I never have before. The Morne Michelle kombit, for example, was not just a regular work day. As we talked to the farmers and got to know each other, there was singing, dancing, and even a rhythmic beating in the background as a man banged a rock against a machete to set the pace for the festivities. The nights spent up in the village of Bois Jolie were equally as enjoyable. I was expecting to be sitting around and waiting for the sun to set after a long hike and longer work day, but instead they taught me how to play dominoes, when the children weren't swarming us to play. In return, we taught them Go Fish. While it's a children's game in America, the long hours playing there were surprisingly intense, as people lied, cheated, laughed, and had the time of our lives.

In addition to having the freedom to play and talk with our Haitian friends, this trip was also incredibly informative in terms of hands-on field experience and working towards a career in the fast-approaching "Real World" that will meet me post-graduation. I can say without a doubt that I am passionate about studying insects, and this has been an invaluable opportunity to apply my interests. By researching the way insects affect farms, I can help improve the health of those ecosystems and thus increase potential income for those farmers. I also enjoy the idea of aiding with coffee production, as I am rarely seen without a cup of coffee in my hand and feel as if I owe coffee drinkers and producers my help. While our work won't change the country, it is making a massive difference in the lives of the forty families that we have been working with.