

outbursts

● a monthly publication of outreach and international affairs

spotlight on international programs

volume 2, issue 10

What do grafting and texting have in common?

Students do both to improve agriculture in Ecuador

By Zeke Barlow

The Andean mountains where Luis Elvae grows crops are as steep as they are fertile. The cake-batter-thick volcanic soil is perfect for growing maize, potatoes, wheat, and the lucrative naranjilla fruit that is a ubiquitous crop in this South American country. But the sheerness of the massive mountains that scratch the sky also poses challenges for Elvae and other farmers.

Erosion, runoff, and deforestation are problems. As the population expands, more farmers are taking to the impossibly steep mountains to grow crops.

To help farmers like Elvae, College of Agriculture and Life Sciences students Corinna Clements and Austin Larrowe spent two weeks in Ecuador working with farmers to combat a devastating soil-borne fungal disease. By grafting high-yielding naranjilla plants onto wild rootstock that resist the disease, farmers are able to continue to grow this economically valuable crop and no longer have to clear new forest land every season.

"We want to help farmers here continue to succeed while addressing the many challenges they are facing," Larrowe said.

In a separate project, graduate student Elli Travis spent this past summer working with Ecuadorian potato farmers on ways to use text messages to improve the environment and boost profits by incorporating pest-

management techniques into their practices. She plans to evaluate the effectiveness of the text-messaging strategy for her master's thesis and hopes that, if successful, it can be replicated in other developing countries as a cost-effective way of providing extension services.

All of the students work with their professor, Jeff Alwang, who has been working in Ecuador and other South American countries for decades on ways to improve the landscape and livelihoods of the countries. Most of his work has been funded by USAID's Feed the Future Sustainable Agriculture and Natural Resource Management and Integrated Pest Management Innovation Labs.

Alwang has also received funding for this work from the World Bank, the Food and Agriculture Organization of the United Nations, the McKnight Foundation, and the government of Ecuador.



Corinna Clements and Austin Larrowe, both agricultural and applied economics students, spent part of their summer in Ecuador, where they worked on ways to help curb deforestation while boosting farmers' profits.

Photos and articles documenting the students' trip are posted on the Virginia Tech Research blog: <http://tinyurl.com/VT-Ecuador>

Virginia Tech expands presence in Latin America

Virginia Tech's growing presence in Latin America provides access to distinct natural laboratories including Patagonia, the Amazon rain forest, and the Galapagos Islands. Having identified Latin America as a focus in its international strategy, the university is strengthening and developing relationships within the region. In addition to the sciences, the humanities are being stressed to take advantage of cultural assets and historical locations. Currently, Virginia Tech has two key partners in Latin America: Universidad de San Francisco de Quito in Ecuador, and Universidad Austral de Chile in Valdivia, Chile. "We are analyzing other areas in Latin America which would present unique opportunities for the university, not only for student exchange, but also for research," said Gerhardt Schurig, Outreach and International Affairs international strategist.

A day with the gorillas

By Miriam Rich

I was recently in eastern Africa for work and decided that, while I was in that part of the world, I would embark on an adventure during my personal time to see the gorillas in the northwest part of Rwanda. Our guide, Emmanuel, sat us down in a circle and briefed us. These are mountain gorillas, as opposed to lowland gorillas. There are 20 families, 363 individuals in total. A large male can weigh up to 500 pounds.

We hiked through potato fields in the foothills of high volcanic peaks wreathed in clouds. Here and there, a wisp of smoke rose from mounds of dirt where people were making charcoal from eucalyptus. We reached a stone wall and a ditch that bordered the fields, built to keep the wild animals out of the crops. When we resumed walking, we found ourselves suddenly in a bamboo forest where it was shaded and dark. Suddenly, there he was—a big silverback! Not 20 feet from us through the bamboo! We all whipped out our cameras and starting snapping away. The silverback occasionally looked over at us as if to say, “Oh. You guys again!” Meanwhile, the guides made a sort of rumbly, throaty sound that they told us means, “We come in peace.”

We walked a few paces further, and there were more of the beautiful creatures—toddler-age ones playing with each other, rolling and wrestling and tussling and then swinging from branch to branch just like in the movies. There was a mom with a little one clinging to her back, strolling through the gathering. A few steps farther along there was a couple, one of whom was picking nits off her partner while he sat there basking in her attention, looking at us from time to time as if to say, “I know you’re jealous.” The spectacle was riveting. I could have stood there all day.



Can you draw me a map?



Farmers in Tororo, Uganda, draw a map of their farms to show where they work and what they grow.

By Mary Harman Parks

The question “Can you draw me a map?” can produce a rainbow of reactions. During fieldwork, I’ve asked about 100 farmers to draw me maps, many of whom had never even held a marker before. In international development, mapmaking can be a great way to learn about local people, their environment, and their way of doing things. Some people refer to these maps as mental maps or community maps, but most in this field refer to them as participatory maps. In our research, we often ask farmers to draw maps that depict their everyday life. This usually includes crops, animals, homes and buildings, machinery, water, and even people.

Asking farmers to make maps helps us understand their cultural landscapes and natural-resource management. Development specialists can then design better projects. The farmers’ maps have gained the attention of governmental and institutional authorities and led to policymakers including farmers in decision-making processes. Because participatory mapping involves significant interaction and engagement with farmers, the process is as valuable as the product.

I am always amazed at what people draw and how they go about it. Many farmers are hesitant at first, but almost all are willing to put something on paper. Many take the activity seriously and draw for an hour, making sure they’ve represented everything relevant to them. Most show small cultural details, such as the steps that lead up to their house or the distilling drum they use to make beer. Some walk around their land while drawing, noticing the spaces and things that are so ingrained in their lives that it took drawing these surroundings for them to acknowledge their importance.

Others become so overwhelmed at the idea of drawing their life onto paper that it takes some facilitation to make them comfortable.

When a few farmers asked me to draw a map, mine was very different from theirs – not surprising, as we live in completely different places and do completely different things. But it was simpler than I expected. The overwhelming and complicated parts of my life were nowhere to be found. This is something I need to keep in mind when I look at the maps farmers draw. I’m aware that we can’t put all the important aspects of our lives on paper. I realize the farmers probably understood this better than I did when they asked me to do what I had asked of them. Many farmers also told me, “Come back next year and I’ll draw the same thing, only different.”

I may not be able to find my way around a place or know which direction I am going all the time. But I do understand that there is much more to maps than direction and routes. They are a snapshot of a story, a conversation, and a mood that we live out every day.



A Ugandan farmer shows Mary Parks, research associate in the Women and Gender in International Development program, a “participatory map” of his farm.

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