Students study tropical field ecology in Ecuador

Abigail Foster, a Brighton native and self-professed homebody, recently broadened her horizons when she took part in a tropical field ecology class more than 3,000 miles away from home.

She and nine other Oakland University students spent part of their holiday recess immersed in the sprawling ecosystems of Ecuador, including grasslands, wetlands, cloud forests, rocky marine reefs and some of the last remaining tropical dry forests in South America.

“We spent a few days in Upper Amazonia, then drove up through the Andes to visit some natural hot springs that are fueled by volcanic activity,” said Foster, an Environmental Science major and Honors College member. “We stayed in Quito (Ecuador’s capital) for a night, went up into the cloud forest for a night’s stay at the world-famous Bellavista Reserve, and then went down to the Pacific coast to finish out the trip.”
Throughout the 10-day excursion, students chronicled their adventures and noted the vast range of flora and fauna they observed. They spotted dozens of animals, such as an Andean fox, poison dart frogs and a breaching whale, and also logged more than 200 bird species.

Joseph Javier, an Honors College member and pre-medicine student, had always dreamed of exploring the Amazon rainforest. Some of his favorite memories from the trip include rafting down the Napo River, standing beneath a centuries-old kapok tree that “towered over us like a skyscraper” and visiting a village of indigenous Quechua people who “painted our faces, taught us how to hunt with a poison dart blowgun and showed us plants with medicinal uses.”

Javier noted that while 25 percent of Western pharmaceuticals are derived from rainforest ingredients, only about one percent of Amazon trees and plants have been studied for medicinal properties.

“Within these tropical rainforests could be the yet undiscovered cures for HIV, cancer and other diseases,” he said.

The class, BIO 4333, was led by Biology Professor Scott Tiegs, who lived in Ecuador while doing field research in 2015.

“It was a pleasure to show the students some of my field sites,” said Tiegs. “Ecuador is a nearly ideal setting for introducing students to the broad range of ecosystems in the tropics because so many of them can be found in close proximity.”

For the past several years, Tiegs has conducted tropical field ecology classes in Costa Rica. This was his first year taking students to Ecuador, which involved extensive planning between the Provost’s Office, College of Arts and Sciences, Department of Biological Sciences, Graham Health Center and International Education.

Ryann Easterbrook, a sophomore Environmental Science major and Honors College member, signed up for the course after learning about it from a student who had traveled to Costa Rica for the class.

“It was way better than I could have ever imagined,” said Easterbook. “I left Ecuador with a group of great friends, lifelong memories and a once-in-a-lifetime experience.”

This was Easterbrook’s second field ecology class at OU. Last summer, she took BIO 303, a field biology course that included frequent visits to OU’s Biological Preserve, which consists of roughly 110 acres of forests, meadows, streams and wetlands.

“Field-based courses are much more engaging than a typical classroom,” she added. “I’ve learned so much about botany, wetlands and entomology.”

Easterbrook, Javier and Foster each expressed appreciation for the world’s biodiversity and the need to protect it.

“What we are doing isn’t sustainable, especially when programs to replace lost forests are few and far between,” Foster said. “This experience made me appreciate both the people who work hard to protect ecosystems and the scientists who work hard through their research to find more sustainable ways to move forward.”

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