

Restoring NATURE

BSC 434 Plant Systematics students eradicate non-native species from a nature preserve while becoming plant-identification experts



ABOVE: Laura Frost (left), a senior majoring in biology, and Stephanie Foley, a 2011 biology graduate, pull up a large Chinese privet plant. To prevent the invasive shrub from growing back, they must remove its roots.

Since joining the UA faculty in 2006, assistant professor of biological sciences John Clark has led more than 100 students in eradicating invasive plant species from the grounds of Tanglewood, a 480-acre nature preserve in Hale County, Alabama. They have accumulated more than 1,600 service hours for the project.

Invasive plants are non-native to the ecosystem and cause environmental or economic harm. Because these alien plants – often transported to an area by humans – typically have no natural predators or diseases in the new environment, they spread rapidly, replacing native plants.

Clark's Plant Systematics class is held each spring and teaches students to identify plants native to North Alabama. In doing so, students also learn to recognize non-native plants, and they each devote a minimum of 15 hours to removing harmful species from Tanglewood, the University of Alabama's J. Nicholene Bishop Biological Station.

Stephanie Foley, a 2011 graduate who majored in biology, said the class was her favor-

ite. “You learn without being bored because everything is hands-on,” Foley said. “He showed us plants, not just pictures of plants in books.”

Foley also realized she enjoys scientific research. “Because of that class, I started working in Dr. Clark’s lab and discovered I love lab work,” she said. “Now, I want to go to graduate school and study cancer research.”

At Tanglewood, students uproot Chinese privet, which was introduced in the United States as an ornamental shrub in 1853 and is one of Alabama’s 10 worst invasive plants, according to the Alabama Invasive Plant Council. The shrub has spread through much of Tanglewood, where students dig up its long roots by hand – a challenging task amid Alabama’s dense underbrush and trees – and accept risks such as being exposed to poison ivy and insect bites and stings. “Helping eradicate invasive species is very hard to do,” Clark said.

At the end of the class, students are required to turn in portfolios identifying more than 100 plant species. To accomplish this, they travel throughout North Alabama. “The goal of the class is to study plant diversity, and to do that students



Hunter McBrayer, a senior majoring in biology, shows how to identify Chinese privet, an invasive plant that is displacing native flora in Alabama.

must get out of Tuscaloosa,” Clark said.

Chad Colon, another 2011 graduate and former BSC 434 student, said his favorite part of the class was being able to go outdoors and see what he was studying.

“We weren’t just sitting in a classroom,” Colon said. “We’d come into class, and he’d lecture to us for about an hour about conifers. Then we’d go out in the field and study pines.”

For more information about BSC 434 Plant Systematics, contact John Clark at jlc@ua.edu or 205-348-1826.

Alabama in Ecuador

John Clark also leads BSC 325 Tropical Plant Diversity, a course he teaches in the rainforests of Ecuador, where students spend three weeks in May hiking and interacting with villagers and employees of the Bilsa Biological Reserve.

Caroline Murray, a junior studying business and communications, said the group spent most of its time in rural areas, with indigenous people who are devoted guardians of the forest. “I learned so much more than I would have in a traditional classroom setting,” she said. “It was great to see what I was learning about in real life.”

Students learned how to identify families of plants by looking for defining characteristics. Their final project was a presentation about one plant family’s characteristics, relatives and natural history.



The 2011 BSC 325 Tropical Plant Diversity class with assistant professor John Clark (right) in Ecuador

SPECIAL SECTION: UA Community Responds to Tornado Disaster

Service Learning

Innovations in Scholarship, Service and Outreach

2011-2012



**REBUILDING LIVES
AND GROWING
STRONGER COMMUNITIES**

THE UNIVERSITY OF ALABAMA

Center for ETHICS
SOCIAL RESPONSIBILITY
at THE UNIVERSITY OF ALABAMA

Center for Ethics & Social Responsibility
100 Temple Tutwiler Hall
Tuscaloosa, AL 35487-0168
(205) 348-6490
cesr@ua.edu • cesr.ua.edu

touching lives



THE UNIVERSITY OF ALABAMA