



Sept. 8, 2005

Giraffe dung and lions devouring zebras are part of new field biology course that takes students to the African bush

ITHACA, N.Y. -- Imagine a college course that enables students to document the behavior of a pride of lions as they slowly eat a zebra, to measure the horn lengths of antelopes, to explore why only some males have harems and to conduct experiments on acacia trees filled with ants that pack a nasty bite.



Michel Ohmer

Field course student Sharri Zamore, CALS '07, studies the response of acacia ants to the scent of alarm chemicals emitted by nearby ant colonies.

Cornell University students experienced those activities and much more this summer when they traveled to Kenya for a new biology field course, Tropical Field Ecology and Behavior (BioEE/BioNB265). Although Kenya is popularly identified with safari trips to places like Serengeti Park, the Cornell course was based in an area far off the normal tourist routes: Mpala Research Centre. This facility is run by Princeton University, the Smithsonian Institution and several Kenyan agencies -- in the northwestern foothills of Mount Kenya.

The course gave students the rare opportunity to experience life as a field biologist in the African bush. Michel Ohmer, a sophomore biology major in the College of Agriculture and Life Sciences, noted: "At any moment we might see a group of hippos communicating with bursts of snorting, pass dueling elephants locked tusk-in-tusk or even glimpse an aardwolf, a species so elusive that local tradition holds that just seeing one brings long life. I left Kenya not only with an excitement for my future in research, but with lasting friendships with fellow Cornell students and with the college-age Kenyan researchers who lived and worked with us."

"Field courses give us a chance to teach students about aspects of science that can't be covered in a textbook or lecture," said course instructor Irby Lovette, an assistant professor of ecology and evolutionary biology and director of the Evolutionary Biology Program in Cornell's Lab of Ornithology. "From designing research projects to talking over dinner with scientists from the research station, the students had a full immersion in the joys and challenges of field research."

Cornell News Service:

Susan S. Lang
Office: (607) 255-3613
E-Mail: ssl4@cornell.edu

Media Contact:

Press Relations Office
Phone: (607) 255-6074
E-Mail: pressoffice@cornell.edu

Related Information:

[Irby Lovette Web site](#)

[Cornell course Tropical Field Ecology and Behavior](#)

[FOCUS on learning and teaching at Cornell](#)

Along the way, the students also got the chance to see and study the wildlife for which Kenya is justifiably famous. On the field station reserve and surrounding private ranches, large animals like giraffe, zebra, eland and many species of antelope were nearly always in view -- "thicker than deer in Cayuga Heights," noted one student. The students often spotted such large predators as lions and cheetahs, and the loud "whoop" calls of hyenas serenaded them to sleep every night. Meanwhile, a cadre of committed undergraduate birdwatchers tallied more than 250 bird species during the three-week trip, Lovette said.



Alon Mass

Students in the course Tropical Field Ecology and Behavior discussed a series of papers on why some lions have larger and darker manes than others; this male seen shortly thereafter had an unusually robust mane.

The course was far more than a chance to see animals, however. "We maybe went a bit overboard to make sure that the course was academically rigorous," noted co-instructor Dustin Rubenstein, a senior graduate student in the Department of Neurobiology and Behavior. "We wanted to ensure that it was more than just a safari. Our mandatory reading and discussion packet of scientific papers was 400 pages long, and we demanded a lot of the students when they conducted and wrote up their independent field research projects as scientific papers."

"The field projects were one of the highlights," seconded Lovette. "I like the way they forced students to think about research in new ways. For example, we had one group composed of serious premeds and a Johnson School MBA student, all with no previous biology field experience, and out of the universe of potential projects, they ended up surveying animal dung.

"I guarantee that when they signed up for the course, they didn't expect to count and identify every piece of dung on an area equivalent in size to several football fields. But the best thing is that they brainstormed that project themselves -- it wasn't something we had arranged -- and in the end their data showed interesting and statistically significant ecological differences in how antelope species use different habitats. Plus now they will never forget what giraffe poop looks like."

Many students have already indicated their interest in joining the next Kenya field course, and Lovette and Rubenstein said that they will likely run it again during the forthcoming January intersession. "Dustin and I both originally visited Mpala for our own ornithological research projects," noted Lovette, "but once there, we realized that it was the perfect place to co-host a Cornell course. Watching students transition from fearful to fascinated in such a biologically rich setting is every teacher's dream come true."

-30-

[September story index](#) | [Cornell News Service Home Page](#)