

2009 Course Descriptions for Primatology, Wildlife Ecology & Conservation Field School

Course Description: Primatology, Wildlife Ecology & Conservation

(Part of a two course package students should register for both 070:336 and 070:337)

Course Number: 070:336
Semester: Summer 2009
Location: Kenya
Dates: August 16th -August 27th
Web Site: On Rutgers Study Abroad
and www.primate.rutgers.edu

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Primatology, Wildlife Ecology & Conservation Course

This course is designed to provide students with an overview of wildlife ecology and conservation, with particular emphasis on primate behavioral ecology and studies of living primates. Course components will cover primate and other savanna animal taxonomy and distribution, ecological niches of animals, diet and behavior of primate and other savanna animals, wildlife conservation and ecology and the general tenants of primate/wildlife/human interactions.

Field School Description

This field school will give participants the opportunity to experience diverse habitats of Kenya, and to study Kenya's biodiversity by using primate field studies as the entry point. Primates are naturally interesting to observe, given their size and shared characteristics with humans; for similar reasons, primates make powerful flagship species for conservation programs. This field school will maximize students' exposure to the diversity of primate and other savanna animal behavior by exploring two very different ecosystems in Kenya: the Tana River National Primate Reserve, a dry riverine habitat near the coast in eastern Kenya, and the Laikipia Plateau which samples a range of habitats forest to the dry grasslands.

Primates are plentiful at both of these sites, affording students a unique opportunity to examine ecological and behavioral adaptations of several primate species to very different biotic and abiotic factors. Tana River National Primate Reserve, gazetted in 1976, consists of patches of riverine forests along the meandering course of the lower Tana River, with dry woodland and savanna habitats encompassing the forest patches. It is the only reserve in the world dedicated solely to conservation of primates. In contrast, the Lakipia Plateau affords a range of habitats. In addition, there is a range of different primates (colobus, patas, vervets and baboons). The students will also visit a chimpanzee sanctuary. There are opportunities to study wildlife ecology and conservation in

areas of rhino sanctuary, radio-collared lions (part of the Carnivore Predator project), elephants and ungulates.

Required and Recommended Texts - Supplemental Readings

Students are required to purchase and bring three required texts, Karen Strier's Primate Behavioral Ecology (text for 070:336) and Richard Estes's The Behavior Guide to Africa's Mammals. Published articles, lecture notes, and other material will be provided in a course folder. Field worksheets and folders will be provided.

Course and Student Objectives

1. To appreciate a global overview of savanna animals by providing students with comprehensive knowledge of their taxonomy and first hand observation of varied species in their natural habitat in Kenya.
2. To introduce students to tropical forests, woodlands and savannas and to expose them to habitat identification.
3. To learn about primate and other savanna animal nutrition and the ecology of relationships through observation exercises of ecological niches.
4. Students to learn about threats to wildlife conservation and disease epidemics that have historically threatened to decimate primate species.
5. To develop understanding of primate behaviors through lectures and field observations of feeding and sociality.
6. Students to learn about rain forest structure, distribution of the availability of food for animals and animals communities through habitat identification and observations.
7. To introduce students to bush meat trade and community wildlife conservation efforts as an effective method of sustainable wildlife conservation and major challenges in Kenya.

Approach to achieving course objectives

The curriculum will comprise lectures, readings, and discussions on site-specific research papers as well as foundational concepts in Primatology, ecology and conservation biology. The core of the field school will be training and practice of field methods concentrating on animal behavior and ecology. Participants will learn how to census primates, study social behavior and habitat use, practice animal identification, time budget analysis via scan and focal animal sampling, and how to measure habitat use.

1. Lectures
2. Site/field visits
3. Group discussions/seminars

Course Requirements and Assessment techniques for 336 course

1. Individual assessment through weekly quizzes (30% of final grade)
2. Group presentations on selected topics (20% of final grade)
3. Final examination (50% of final grade)

Course Rules

Attendance: This is a field-based upper level course. As such attendance and participation are required. Students are expected to attend all class meetings during which period a great deal of material will be covered. All materials may appear in the exams and quizzes.

Policy on religious activities and holidays: If a student will be performing or observing any religious activities or holidays that will prevent one from attending a regularly scheduled class or interfere with any course requirement, an opportunity will be offered to make up the class or course provided they will inform Field Course Director(s) of the events during the first week of the field school.

Safety in the field: Students must maintain a high level of safety while in National Parks and Reserves. Students are not permitted to visit places alone.

Academic integrity: All students must strictly adhere to Rutgers Academic Integrity Policy. For details see:
<http://ctaar.rutgers.edu/integrity/policy.html#Integrity>

Time Table

Typical Day at Tana River. Animals are most active in early morning and late afternoon, so field work is scheduled to maximize viewing of active animals.

6 a.m. – 7 a.m.	breakfast, prepare for field
7 a.m. – 10 a.m.	field work
10 a.m. – 12 p.m.	tea, lecture, discussions and/or data organization, analysis
12 p.m. – 2 p.m.	lunch and assigned reading work
2 p.m. – 5 p.m.	field work
5 p.m. – 7 p.m.	wash, dinner
7 p.m. – 9 p.m.	finish day's assignments, relax
9 p.m. – 6 a.m.	camp quiet, sleep

Course Description: Field Methods and Analysis in Primatology, Wildlife Ecology and Conservation in Kenya

(Part of a two course package students should register for both 070:336 and 070:337)

Course Number: 070:337
Semester: Summer 2008
Location: Kenya
Dates: August 2nd -August 15th

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Field Methods and Analysis in Wildlife Ecology and Conservation Course Description

The core of this field based course will be training and practice of field methods concentrating on primate behavior and ecology. Participants will learn how to census wild animals, study social behavior and habitat use, practice animal identification, time budget analysis via scan and focal animal sampling, and how to identify habitat type and measure habitat use. Students will also learn techniques used in mapping, data recordation, usage of GPS systems, and others associated field procedures.

Field School Description

This field school will give participants the opportunity to experience diverse habitats of Kenya, and to study Kenya's biodiversity by using primate field studies as the entry point. Primates are naturally interesting to observe, given their size and shared characteristics with humans; for similar reasons, primates make powerful flagship species for conservation programs¹. This field school will maximize students' exposure to the diversity of primate behavior by exploring two very different ecosystems in Kenya: the Tana River National Primate Reserve, a dry riverine habitat near the coast in eastern Kenya, and the Lakipia Plateau. Primates are plentiful at both of these locations, affording students a unique opportunity to examine ecological and behavioral adaptations of several primate species to very different biotic and abiotic factors.

Tana River National Primate Reserve, gazetted in 1976, consists of patches of riverine forests along the meandering course of the lower Tana River, with dry woodland and savanna habitats encompassing the forest patches. It is the only reserve in the world dedicated solely to conservation of primates. In contrast, the Lakipia Plateau affords a range of habitats. In addition, there is a range of different primates (colobus, patas, vervets and baboons). The students will also visit a chimpanzee sanctuary. There are opportunities to study wildlife ecology

and conservation in areas of rhino sanctuary, radio-collared lions (part of the Carnivore Predator project), elephants and ungulates.

Required and Recommended Texts - Supplemental Readings

Students are required to purchase and bring three required texts, Karen Strier's Primate Behavioral Ecology (text for 070:336) and Paul Martin and Patrick Bateson's Measuring Behavior (text for 070:337). Published articles, lecture notes, and other material will be provided in an Instructional Course Pack. Supplemental and reference materials will be provided in the program's traveling library.

Course and Student Objectives

1. To appreciate a global overview of savanna animals by providing students with comprehensive knowledge of primate taxonomy and first hand observation of varied species in their natural habitat in Kenya.
2. To learn about wild animal nutrition and the ecology of relationships through observation exercises of ecological niches.
3. To develop understanding of primate behaviors through lectures and field observations of feeding and sociality.
4. To introduce students to a variety of methods of data collection in field settings, including animal censusing techniques, primate behavioral sampling, vegetation survey techniques and estimation of primate food abundance across time and space.
5. To practically participate in primate census and habitat evaluation in Tana River National Primate Reserve.
6. To learn and apply the methods of systematic vegetation study to a vegetation study of Mugie ranch.

Approach to achieving course objectives

The curriculum will comprise lectures, readings, and discussions on site-specific research papers. The core of the field school will be training and practice of field methods concentrating on primate behavior and ecology.

4. Lectures
5. Site/field visits
6. Exercises
7. Field Notebooks
8. Individual presentation of proposed research project

Course Requirements and Assessment Techniques for 337 course

1. Individual assessment through field exercises (40% of final grade)
2. Research proposal and presentation (20% of final grade)
3. Field Notebooks (40% of final grade)

Students will receive a series of grades for exercises conducted throughout the field course 60%. Students will also design, write-up and make a presentation on a proposed research project 20% and will be required to maintain a field notebook 20%.

Field exercises: Students engage in supervised data collecting exercises, using methods and procedures discussed and practiced under actual field conditions. Each section carries an equal weight with a total of five learning sections. The first grade is for field techniques for mapping a field site. The second section is on methods of vegetative sampling and for collecting information on temporal changes in resource availability. The third section is on methods of censusing primates and other animals, and for determining population demography. The fourth section is on methods of collecting data on the behavior of free-ranging non-human primates and other savanna animals. The fifth section is on the collection of biological data for diet, DNA, and other analyses.

Research proposal and design: Students will design a research project, outline the project, and make a presentation on the proposed project. Students should be specific about what data collections methods and the aims and goals of the project. Project presentations will be enhanced by using preliminary data collected in the field.

Field Notebooks: Students are expected to maintain a field notebook with observational data, lecture notes, research material in a journal style. Field notebooks will be evaluated based on completeness, level of detail, legibility and organization. A good field notebook is a combination of quantitative and qualitative information so notebooks will be assessed on the success of both goals.

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12 p.m. – 2 p.m.	lunch and assigned reading work
2 p.m. – 5 p.m.	field work
5 p.m. – 7 p.m.	wash, dinner
7 p.m. – 9 p.m.	finish day's assignments, relax
9 p.m. – 6 a.m.	camp quiet, sleep

Sample Syllabus for Primatology Field School from August 2009

Arrival in Nairobi	Assemble in Sirona Hotel Nairobi
Day 1	Kenya Wildlife Services (KWS) Institute for Primate Research Orientation
Day 2	Travel to Nanyuki River Camp, Mount Kenya
Day 3	Animal Orphanage, Mt. Kenya Safari Club (Rehabilitation of Bongos, etc) and William Holden Education Centre, Bioconservation Projects
Day 4	Sweetwaters and Chimp Sanctuary with Martin Mulama and Wildlife Conservation with Dr. Paul Muoria
Day 5-6	Shirley Strum Baboon Study
Day 7-9	Travel to Mpala Ranch, Princeton Research Station, Wildlife Ecology with Dr. Dan Rubenstein
Day 10	Travel to Mugie Ranch (Marion Bamford join group)
Day 11	Mugie Ranch-Rhino Sanctuary (conservation)
Day 12	Mugie Ranch-Radio-Collared Lions, Carnivore Predation Project (systematic vegetation survey)
Day 13	Travel to Nairobi-overnight
Day 14	Travel to Tana River Primate National Reserve
Day 15-22	Tana River Reserve (see enclosed attachment)
Day 23	Travel to Mombasa, Diani camp
Day 24	Colobus Trust
Day 25	Study day in camp
Day 26	Final Exam
Day 27	Travel to Nairobi
Day 28	Departure