

*Danta: Association
for Conservation of
the Tropics*



Primate Behavior and Conservation Field Course in Costa Rica

December 28, 2008 – January 17, 2009

Danta: Association for Conservation of the tropics and the State University of New York at Oneonta are pleased to announce a Primate Behavior and Conservation Field Course to be held in Costa Rica from December 28, 2008 to January 17, 2009. This program is open to people of all academic backgrounds. Participants may enroll on either a credit or non-credit basis.

*Map of Costa Rica and
Bordering Countries*



Course Description



This course is designed to provide students with training in primate behavior, ecology and conservation in a field setting. During the first half of the course, students will learn how to (1) collect data on the behavior of free-ranging primates, (2) measure environmental variables, including assessment of resource availability, (3) and how to estimate population size. In the second half of the course, each student carries out an independent research project. Students in the past have investigated such topics as play behavior, feeding ecology, positional behavior, and parasitology in the mantled howler monkey, white-faced capuchin and black-handed spider monkey. Students will be involved in applied conservation during a 4 day field trip to Puerto Viejo.

Itinerary:

Day 1 (December 27, 2008): Fly to San Jose, Costa Rica. At Santamaria International Airport, you will be met by DANTA faculty who will transfer you to your hotel.



Day 2: In the morning, you depart for the field station. Enjoy the inspiring scenery as we drive through Braulio Carrillo National Park. There will be a brief stop for photographs.

Braulio Carrillo National Park

Day 3- 10: Settle in to your new home at El Zota Biological Field Station. We will be very busy viewing wildlife, and learning new behavioral and ecological field

Mantled howler monkey eating figs



Day 11-14: Field trip to Puerto Viejo/Manzanillo region of Costa Rica. Here you will spend 2 days working on the Talamanca Monkey Bridge Project (read DANTA News (www.danta.info) for more information), spend a day visiting the Bri Bri indigenous community., and finally, we will take an invigorating zip-line tour of the rainforest canopy!

Day 15 -20: We are now back at the field station, and you begin work on your independent research projects.

Day 21: Depart for San Jose just after breakfast. You will arrive in San Jose around midday. You can spend the afternoon shopping, visiting museums, or simply relaxing. The group will meet up in the evening for our farewell dinner.

Day 22 (January 18): You are transported to the airport for your flight home.

Course Instructors

Kim Dingess (Core Instructor) is a native of West Virginia. Her passion for different cultures and wildlife has taken her all over the world for work, study, and pleasure. After obtaining her Bachelor's degree in Anthropology from Marshall University, West Virginia, Kim moved south to Tennessee where she completed her M.A in Anthropology from the University of Tennessee, Knoxville. Her Master's research used living primate and carnivore models to as a means to interpret the Plio-Pleistocene fossil record. In the summer of 1994, Kim participated (as a student) in her first field course in Costa Rica. Since her initial course, Kim has instructed or co-instructed approximately 25 field courses in Costa Rica. Most of these have been in Primate Behavior and Ecology, but, in addition, her diverse interests have led her to co-teach both Rain Forest Ecology and Ornithology. She has also had the pleasure of teaching for the Tropical Biology Association in Uganda. Kim is currently completing her PhD in Anthropology from Indiana University at Bloomington. Her major research interests are the evolution of monogamous mating systems, bioacoustics, and conservation. Her current research focuses on monogamy and the function of loud calling in the Bolivian gray titi monkey. She, along with her husband, is also currently completing a long-term field study on the function of song behavior (duetting) in neotropical wrens. She has field work experience in Bolivia, Costa Rica, Mexico, Panama, Ecuador and Uganda.

Agustin Fuentes (Visiting Lecturer) completed a B.A. in Zoology and Anthropology, and an M.A. & Ph.D. in Anthropology at the University of California, Berkeley. He taught in the department of Anthropology and directed the Primate Behavior and Ecology Program at Central Washington University from 1996-2002, and is currently the Nancy O'Neill Professor of Anthropology at the University of Notre Dame. His research and teaching interests include the evolution of social complexity in human and primate societies, cooperation and conflict negotiation across primates, including humans, and reproductive behavior and ecology. He is also interested in issues of human-nonhuman primate interactions, disease and pathogen

transfer. Fuentes recent published work includes the books: *Core Concepts in Biological Anthropology* (McGraw-Hill) and *Primates in Perspective* (co-edited, Oxford University Press) and articles such as "It's Not All Sex and Violence: Integrated Anthropology and the Role of Cooperation and Social Complexity in Human Evolution" and "The humanity of animals and the animality of humans: A view from biological anthropology" inspired by J.M. Coetzee, Elizabeth Costello in the *American Anthropologist*, and "Human culture and monkey behavior: Assessing the contexts of potential pathogen transmission between macaques and humans" in the *American Journal of Primatology*. His current research projects include assessing behavior, ecology, and pathogen transmission in human-monkey interactions in Asia and Gibraltar and examining the roles of cooperation, social negotiation, and patterns of niche construction in primate and human evolution.

Stacy Lindshield (Assistant Instructor) is a PhD student in the Department of Ecology and Evolutionary Biology at Iowa State University. She received her master's degree in Anthropology from Iowa State University. In 2007, she was project manager for the Fongoli chimpanzee project in Senegal. She is interested in primate behavioral ecology in general but more specifically, she wants to explore aspects of plant-animal interactions (diffuse co-evolution, ecomorphology), habitat selection, optimality, conservation biology, and applied conservation in future work. In addition, she has developed a background in skeletal biology and forensic anthropology, which she hopes to apply on a volunteer basis and in the class-room. For her thesis research she examined the distribution of spider monkeys between disturbed and undisturbed habitat at El Zota Biological Field Station, Costa Rica.

DANTA Fees and Deadline:

The cost of the course is \$1850, and includes all within-country transportation, room and board, and expenses for a 4 day field trip. It does **NOT** include your international flight, airport taxes (\$26), accommodation and meals for the first and last nights in San Jose. It also does not include university credits. The deadline for registration is **December 1, 2008**.

Academic Credit fees:

You can obtain academic credit for this course through the State University of New York at Oneonta. Participants enrolled for 6 academic credits will pay a total tuition fee of \$181 per credit (or the current tuition rate) for New York State Residents or \$442 per credit (or the current tuition rate) for non-residents.

Students who wish to obtain credit directly through the State University of New York at Oneonta should contact Maureen Artale from the Office of Continuing Education at 607-436-2522 or artalemp@oneonta.edu for more information.

It is also possible that you can receive credit from your home institution by means of an "independent study." Typically, students receive 6 credit hours for this course. For more information on obtaining credit from your home institution, contact Kim Dingess (kdingess@danta.info).

Weather and What to Bring:

Weather

The weather on the Caribbean slope is generally hot and humid during the day and cooler and windy at night. The field course falls in the rainy season so prepare accordingly. You can still expect plenty of sun though. The year-round average temperature is about 80° F, with coldest temperatures at about 70° F and highs reaching 90° F. This does vary when traveling to other regions of Costa Rica so please keep this in mind when packing, particularly those staying on for the ecotravel experience. We will be traveling to higher elevations, so pants and a fleece may be necessary.

What to bring

We suggest that you carry with you on the plane (carry-on bag) your passport, underwear, a shirt, a pair of shorts or pants, minimal toiletries, medications, and anything else you must have in order to survive for up to three days after arrival without your full luggage. Remember that you are working in a rain forest during the wet season so clothing gets heavily used, dirty, and damp. You should not expect to bring home anything in good condition. We suggest that you purchase your clothing from a second-hand store, such as Goodwill.

Items

1. Waterproof digital wristwatch with alarm and stopwatch functions.
2. Flashlight with extra batteries.
3. Plastic bags to protect vulnerable equipment are also useful. A box of zip-locks (large freezer bags are best) and a handful of plastic trash bags large enough to contain small items of luggage.
5. Canteen or water bottle.

6. Mosquito protection. Insect repellent (no more than 30% deet) and insect protection net (for a single bed). You may wish to apply insect repellent every day while you are in the field, so bring a large enough supply.
7. Signal whistle. This safety device can help you keep in contact with your group if they get separated in the field.
8. Field bag or day pack.
9. Compass
10. Binoculars- 8X40 waterproof or at least water resistant are best.
12. 2 or 3 Towels (quick drying)
13. Combination or pad lock
14. Clothing. We recommend the following:
 - 5 light-weight T-shirts or short sleeved shirts (tanks tops are fine)
 - 2 or 3 pairs of shorts
 - 10 pairs of socks and underwear
 - 3 pairs of light weight (cotton or nylon) field pants
 - 3 long sleeved, light weight shirts for working in the field.
 - Pajamas- keep in mind that nights can be cool.
 - City wear (jeans, skirts, etc. for wearing into town)
 - Sandals
 - Tennis shoes or hiking boots
 - Hat
 - Sunglasses
 - Calf-high rubber boots (inexpensive ones can be purchased at K-mart or Walmart)
 - Rain gear- coat or poncho. Umbrella is also useful.
13. Sunblock. High rating (#30 or higher) and waterproof.
14. Personal first aid kit, including: Band-aids, Tylenol or ibuprofen based pain killer, cold tablets, antibiotic ointment, Anti-itch medication, sting-eze, fungal powder or cream, preventative for yeast infection, pepto-bismol, tums, anti-diarrhea medication, laxatives and any other medicine or preventative that you find useful in day-to-day living (example, some people like to carry a sewing needle with them to help with the extraction of slivers or thorns from the skin). A sting kit or anaphylactic shock kit can come in handy, especially if you are allergic to bee stings. Moleskin is helpful for preventing blisters.
15. Office supplies: notebook or binder with paper, pencils, calculator, and small stapler.
16. "Rite-in-the-rain" brand field notebook can be purchased from Forestry Suppliers, Inc. (1-800-647-5368 or www.forestry-suppliers.com). The Rite-in-the-rain notebook is item # 49318.

Required Textbook

Strier, KB (2006) Primate Behavioral Ecology. Boston: Allyn and Bacon Press.

Lectures

All PowerPoint presentations and field exercises will be sent to you via email in advance of the course. Please print these and bring them with you to Costa Rica.

Scientific Article:

Please bring with you to Costa Rica a recent journal publication on any aspect of primate behavior. Avoid literature reviews and studies conducted on captive primates. You should obtain your article from one of the following journals: International Journal of Primatology, American Journal of Primatology, American Journal of Physical Anthropology or Animal Behaviour. Please bring your article in a plastic sleeve in order to protect it from the damp climate.

Recommended Text:

Henderson, C (2002) Field Guide to the Wildlife of Costa Rica. University of Texas Press. ISBN: 029273459X

Course Syllabus

Field Course in Primate Behavior and Conservation

Location: El Zota Biological Field Station, Costa Rica

Dates: December 28, 2008 - January 17, 2009

Organizations:

State University of New York at Oneonta

DANTA: Association for Conservation of the Tropics

Instructors:

Kimberly Dingess, Course Coordinator (Anthropology, State University of New York at Oneonta)

Dr. Agustin Fuentes, Visiting Lecturer (Anthropology, University of Notre Dame)

Stacy Lindshield, Instructor (Ecology and Evolutionary Biology, Iowa State University)

Course Description:

The aim of the course is to provide students with an understanding of primate behavior and ecology in a field setting. This intensive 21 day course will be conducted at El Zota Biological Field Station on the Caribbean slope of Costa Rica. The learning experiences for the course fall into four main categories: field exercises, seminars, lectures, and independent research. The field exercises and seminars provide instruction and experience in: (1) methods of measuring environmental variables, including assessment of resource availability, (2) methods of collecting and analyzing the behavior of free-ranging primates, and (3) census techniques for determining population size. Lecture topics will cover the behavior and ecology of Old and New World primates from an evolutionary perspective. Select lecture topics include primate sociality, foraging behavior, mating systems, and conservation. The course will also guide students through the process of designing and carrying out their own research projects. In addition, students will get experience in applied conservation during a 4 day field trip to the Talamanca region of Costa Rica.

Course Objectives:

- To understand and apply some of the methodological techniques used in primatological research.
- To understand the social and physical diversity within the order primates.
- To understand the "rules" of social behavior and the ecological influences on behavior.
- Appreciate the complex issues facing primate conservation efforts.

Course Requirements

Field Exercises: Students work in groups to learn the basics of primate field research. All techniques will be first introduced and discussed, and then students will practice them in the field. Techniques include: trail and site navigation, habitat description, plant phenology, censusing, identifying subjects by age and sex, ethogram construction and behavioral sampling and recording methods.

Scientific article presentations: A ten minute oral presentation of a scientific research article on any aspect of primate behavior and ecology. Students are instructed not to simply read the paper, but provide a critique of the methods, results and conclusions.

Quiz: One short answer exam on field methods, natural history, lecture notes and/or readings. Designed to have students review the material prior to the final exam.

Final Exam: Two hour comprehensive exam given at the end of the course.

Research Proposal: A two-page written proposal. It must include the following sections with a title and headings: (1) Background to question, including the theoretical context and a brief summary of previous research, (2) Objectives and goals of research, (3) Research questions and hypotheses, with predictions, (4) Methods, including how students intend to analyze the data. A sample data collection sheet and ethogram are to be included as appendices.

Oral Presentation of Research: Approximately 10 minute talk with a 5 - 10 minute question and discussion period following. Visual aids must be used.

Final Report: 8 to 10 page double-spaced paper in scientific format. It must include an introduction, methods, results, discussion and references cited section.

Class Participation: Based on participation in field exercises, conservation initiatives, and independent research. The collection of data for student projects generally requires between 6 - 8 hours of field time per day. This includes search time and actual time spent collecting data. During the field trip to Puerto Viejo and Punta Mona, students are required to participate in various conservation tasks, including the distribution of information to community members, reforestation efforts, and collection of primate survey data. On "Community Day," students are encouraged to interact with members of the local community.

Grade is based on:

Effectiveness and quality of a scientific article presentation	5%
Score on Quiz	5%
Score on final exam	20%
Written research proposal	15%
Oral presentation of research results	15%
Written final report	20%
Course participation	20%

Lecture Topics and Tentative Daily Schedule

Day 1, December 28
Travel from San Jose, brief stop in Braulio Carillo National Park
Course and staff introduction, station rules and regulations
Kim- Introduction to Costa Rica and its wildlife
Day 2, December 29
Orientation Hike- learn trail systems, forest safety, binocular use. You must take natural history notes!
More hiking in the afternoon
Lecture: Kim: Rain Forest Biomes
Day 3, December 30
Field exercise: Aging and sexing primates - early morning rise
Discussion: Aging and sexing primates
Seminar/lab: Kim- Measuring behavior: ethograms
Lecture: Dr. Agustin Fuentes
Day 4, December 31
Hike to the Primary Forest
Lecture: Dr. Agustin Fuentes
Kim-Night Hike
Day 5, January 1
Seminar: Kim-Behavioral sampling and recording methods
Lecture: Dr. Agustin Fuentes
Lecture: Kim: Introduction to Primates (distribution and evolutionary trends)
Scientific article presentations
Day 6, January 2
Field exercise: Behavioral observations of howlers
Discussion and write-up : Behavioral observations
Seminar: Stacy- Estimating population density
Lecture: Kim: Primate classification and diversity
Day 7, January 3
Field Exercise: Estimating population density
Seminar: Kim-Habitat description
Scientific article presentations
Day 8, January 4
Field exercise: Estimating population density
Field Exercise: Habitat Description
Discussion and write-up: Habitat Description
Lecture: Primate Social Systems
Film: Social Climbers

Day 9, January 5
Collect data for pilot study
Work on project proposal/ Study for Quiz
Quiz after dinner
Lecture: Stacy: The Monkey Bridge Project
Day 10, January 6
Collect data for pilot study
Finish up research proposal
Research proposal due after dinner
Brief talk: Stacy- Field trip preparation
Pack for field trip and tidy up field station
Day 11, January 7
Travel to Puerto Viejo, late afternoon swim at Punta Uva
Scientific article presentations
Day 12, January 8
Morning: Work on Talamanca Monkey Bridge Project
Afternoon: Visit Bri Bri reservation
Scientific article presentations
Day 13, January 9
Morning: Work on Talamanca Monkey Bridge Project
Afternoon: dolphin watching or sloth sanctuary
Day 14, January 10
Morning: Canopy Tour (optional)
Afternoon: Return to El Zota
Day 15, January 11
Work on independent research project
Exercise: Kim: Stakeholder
Lecture: Primate Feeding Ecology
Day 16, January 12
Work on independent research project
Lecture: Kim-Primate Culture?
Day 17, January 13
Work on independent research project
Lecture: Kim: Primate Conservation
Day 18, January 14
Work on independent research project/study for final exam
Final Exam after dinner
Day 19, January 15
Prepare for final presentations
Presentations in afternoon

Day 20, January 16
Last forest hike
Farewell party
Day 21, January 17
Travel to San Jose (Museum, souvenir shopping, etc.)
Day 22, January 18
Return home or stay on for a one week ecotravel experience

Ecotravel Experience

As one of our fundraising events this year, DANTA is offering a one week ecotravel experience to some of Costa Rica's most spectacular sites. The trip includes a visit to two active volcanos, Volcan Poas and Volcan Arenal, a day trip the hot springs in Fortuna, and dolphin viewing during a 3 night stay at Manuel Antonio National Park on Costa Rica's Pacific coast. Field trips are open to members of the general public. It is also an option for DANTA field course participants who wish to travel after their course.

The price of the trip is \$950, and it includes all within country transportation, room and board, and all scheduled activities. The price does not include international airfare or airport taxes. The deadline for registration is December 1, 2008.