

Primate Behavioural Ecology and Conservation

Ometepe Biological Research Station, Nicaragua

Summer Session #3

Instructor

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If you wish to speak to me by telephone, please email me to arrange a time.

Introduction

Welcome to Ometepe! This course is designed to provide you with a sound grounding in both theoretical and practical primatology. You will learn about primate behaviour, ecology, and conservation as well as how to formulate research questions, design and conduct research on wild primates. You will be taught through a mix of lectures, active learning sessions, and most importantly, practical sessions in the rainforest with the monkeys and other wildlife of Ometepe. This theoretical and practical background will prepare you for the largest and final part of the course, a research project of your own choosing. This is carried out under the guidance of the lecturer and teaching assistants. Throughout your time at Ometepe we will make the most use of the rainforest and the opportunities it provides. Naturally, there will be some time for breaks, and these will be incorporated into the programme based on the needs of the current cohort of students. Each day we will meet before the evening meal to discuss the day's experience and share any tips for good data collection, as well as ways to overcome difficulties in the field. The course is intensive, taking about three weeks to complete, so be prepared to immerse yourself completely in the study of primate behavioural ecology and conservation!

The following themes will be emphasised throughout the course:

- the relationship between primate anatomy and behaviour, and how these relate to the environment, as well as understanding of the evolutionary processes that shape primate adaptations
- the role of primates within the forest ecosystem, as primary consumers, predators, prey, and agents of forest regeneration
- the conservation status of primates, and their potential importance as flagship or keystone species in the preservation of human impacted environments

Assessment / Grading

Your final mark will be based on the following:

- one exam – 25%
- maintenance of a field diary that will be checked by course staff regularly – 15%
- a written report of your project (100 points) – 50%
- an oral presentation of the project (25 points) – 10%
- co-operation, participation and ability to work with others will not be marked but may influence your overall result

Coursework marking can be moderated to accommodate the marking system of your native country.

Assignment Descriptions

- *Exam*
The exam will last two hours and will be a combination of short answer and essay questions.
- *Field diary*
Your field diary will contain notes from each day. Early on in the course, this will include details of your tasks. It will also contain your data sheets, as well as an evening write up of your experience each day. Data should also be tallied as you go along, as you will be expected to complete your report *in the field*. One of the staff members will check your progress every few days, and mark your work on a graded ordinal scale.
- *Oral presentation*
You are required to give a ten minute presentation of the results of your final project, with five minutes for question and answer. Your mark will not only be based on clarity of your presentation, but also on your participation in asking thoughtful questions to other students. All students will be expected to ask at least three questions. PowerPoint presentations are not necessary, but you are welcome to create props or handouts for your talk.
- *Final Report*
A hand-written report, approx. ten pages (in approx 12-14 point legible handwriting), must be submitted before you leave the field site. This may be a challenge to those of you used to typing your reports, but it is a very good experience to coherently present your ideas. An outline/ essay plan may greatly facilitate you in this process, and staff members can review these a few days before the final report is due.

Required Textbooks

The following books are essential for supplementary understanding of primate behaviour and ecology. They should be accessible through your university bookshop, and also on amazon.com or amazon.co.uk.

Strier, KB (2006) *Primate Behavioral Ecology*, Allyn and Bacon Publishing, 3rd Edition, (ISBN: 978-0205444328; 0205444326)

Patterson JD (2001) *Primate Behavior: An Exercise Workbook, Second Edition*. Waveland Press. (ISBN 1-57766-165-6)

Recommended Reading

Kappeler PM and Pereira ME (2003) *Primate Life Histories and Socioecology*. University Of Chicago Press, Chicago. (ISBN: 0226424642; 978-0226424644)

Sussman RW (2003) *Primate Ecology and Social Structure, Vol.2: New World Monkeys*. Pearson, (ISBN: 0536743649; 978-0536743640)

Smuts BB, Cheney DL, Seyfarth RM, Wrangham R and Struhsaker TT (1987) *Primate Societies*. University of Chicago Press, Chicago. , (ISBN: 0226767167; 978-0226767161)

Tentative Syllabus

The following is a very loose schedule of what to expect in this course. The schedule is subject to change. Attendance is mandatory at all lectures, methodology talks and field exercises.

- Day 1 **Lecture:** Orientation regarding safety, procedures, and behaviour at Ometepe, course goals, and course requirements
Activity: Orientation to the trail system
Introductory talks: by students, TA and lecturer
- Day 2 **Lectures:** Introduction to the primates; Neotropical primates
Task: Compass and binocular use in the forest (mapping) & field safety
- Day 3 **Lectures:** Ethograms behavioural definitions;
Task: observe an animal species of your choice; construct an ethogram
- Day 4 **Lecture:** Behavioural recording techniques; Primate diets & community ecology;
Task: Comparison of behavioural sampling methods in the field
- Day 5 **Lecture:** Sampling primate diets; Mixed species groups
Task: Phenological monitoring, vegetation sampling and habitat surveys
- Day 6 **Lecture:** Counting animals: censusing primate and other mammal populations
Task: Collection of primate food and faecal samples
Activity: Census walk and survey of the mammals of Ometepe
- Day 7 **Lecture:** Behavioural ecology - foraging; social behaviour & social organisation
Task: Foraging task
Task: Collection of social data
- Day 8 **Lecture:** Conservation - problems and threats; Conservation solutions; Red List
Task: Saving the Sumatran rhino (*Dicerorhinus sumatrensis*)
Task: Practical considerations & logistics: census of red uakari (*Cacajao calvus*)
- Day 9 **Lectures:** The natural history of the mammals of Nicaragua; Data handling and presentation; Studying nocturnal and secretive mammals
Task: Data handling and presentation
Activity: Census walk and survey of the nocturnal mammals of Ometepe
- Day 10 **Activity:** Group discussion of project titles, preparation of research proposals
- Day 11 Preparation for exam
- Day 12 Exam & research preparation
- Day 13-21 Intensive data collection for field project
- Day 22-23 Work with staff and co-operate with students to analyse data & write-up field project
- Day 24 Ometepe primate symposium: oral presentations of field projects
- Day 25 Hand in final project: summary of course achievements
- Day 26 Goodbye Ometepe – return home

Remember that staff are available to help you in your projects, and we will circulate through the field site during your data collection days. We will also make times in the evenings to have group discussions. Remember that your questions will likely be shared by others in the group so please take advantage of these discussions. Remember also that we all need some time off, so restrict detailed questions to the designated times.