

# Anthropology 564

## Problems in the Biology of Social Relations: Case Studies of Neotropical Primates

Fall, 2004

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**Instructor:** Lisa M. Rose

**Meets:** Thursdays, 2.30 – 5.30.

Room 208D, Biological Sciences

Room 206, Biological Sciences

Phone: (732) 932-5792

**Prerequisites:** Permission of instructor (substantial background in behavioral ecology and/or primate behavioral biology)

### Course Description

In this seminar we will examine "Neotropical Primate Socioecology" from a broad and comparative perspective. Topics to be covered will include taxonomy, foraging, anti-predator and predatory behavior, comparative social organization, sex differences in diet and social behavior, reproduction and life history, cognitive abilities and socially transmitted behaviors. An important aspect of the seminar will be to compare approaches and findings – both recent and classic – for Neotropical primates with those for the Old World monkeys and apes with which you are probably more familiar. A recurring theme will be how research on Neotropical Primates affects our views and understanding of models of behavioral ecology based largely on research on Old World species. Those of you whose work focuses on human primates and/or human evolution will also find opportunities to consider how Neotropical primate research is relevant (and hopefully thought-provoking) in this context. The seminar will also include a substantial segment focused on complex social interaction, cognition, group traditions and socially transmitted learning - the latter often held to be unique to humans and (some) apes.

### Texts:

Terborgh, J. 1983. *Five New World Primates: A study in comparative ecology*. Princeton: Princeton University Press. \*

Fragaszy, D. M., and Perry, S. (eds.) 2003. *The Biology of Traditions: Models and Evidence*. Cambridge University Press, Cambridge.

**Reading List:** TBA

## **Requirements:**

Participation in Seminar Discussions (10%)

Moderating Discussions (15%)

Summary papers (2, each worth 10%, totaling 20%)

Oral Presentation / Poster (15%)

Term paper (40%)

## **Moderating Discussions (15%)**

One or twice during the semester, depending on enrolment, you'll moderate discussion. This means leading the discussion by offering your critical evaluations of the readings. This does not mean simply rephrasing the content of the papers. Rather, take a position on the work and present it. Foster debate by presenting opposing views on a subject.

One of your responsibilities as moderator is to do a search of the literature on the topic you're moderating and make recommendations regarding papers we should read in class. I will provide a preliminary reading list for each week, but you will be expected to add to it, based on the results of your search. On the (many) days when we will be taking a comparative perspective, each of you is strongly encouraged to include at least one paper that focuses on your own research taxon or topic.

Sign up for moderating sessions during the first two weeks of the seminar. No one will be expected to moderate discussion until week 3 at the earliest.

At least two weeks before your moderating date, you should hand in to me (or email to me) a list of several papers (no more than 5) that you think are relevant for the discussion. Then, for each one, provide a brief synopsis of the major issues, arguments and/or conclusions, and explain in a few sentences why you recommend it or don't recommend it for as a reading for the seminar. Note that if you choose to moderate

for week 3, you can submit your reading list up to one week before the meeting.

### **Summarizing:** (2 summaries, each worth 10% = 20%)

For each weekly meeting beginning September 16<sup>th</sup>, each of you will choose two sessions for which you will summarize the important points of the discussion that day. You will not be expected to summarize meetings for which you are a moderator.

Summaries should begin with a list of the papers that we discussed during the previous meeting, and a very brief (1-2 sentence) description of the major theme/focus of each one. Next, summarize the most important ideas and opinions raised during discussion, wherever possible, linking them to the person(s) expressing them. Finally, give your own opinion of the most significant (1) paper and (2) idea, conclusion, or suggestion for that session, and your basis for giving it. Summaries should total about 4-5 pages (double-spaced) in length, depending on the number of papers we discuss. Sign up for summary sessions during the first two weeks. Your summary will be due (by email or in person) **at least** 48 hours before the meeting following that which you are summarizing. Summaries will be distributed at that meeting.

### **Oral Presentation / Poster (15%)**

You will have the choice of giving an oral presentation or preparing and discussing a poster on a topic relevant to one meeting. Each of you is strongly encouraged to present or write up work in your own research field or taxon with comparable work or relevant theory on Neotropical primates. e.g. if you study or plan to study baboon male reproductive strategies, use your oral presentation, poster or paper to critically compare some recent work (or you own work) with recent research on a NW taxon, e.g. capuchins or spider monkeys. You may also chose to give your presentation or paper in the form of a grant proposal.

Oral presentations should be 15-20 minutes long (allow plenty of time for discussion afterwards). PowerPoint is fine, but you must **ORALLY** present and not just let images do your talking.

Posters should follow meeting guidelines (e.g. American Society of Primatologists). Remember that when presenting a poster, you must be prepared to discuss it!

We will organize the timing of presentations / posters during the first weeks of class.

### **Term paper (40%)**

Your choice of topic is essentially open, provided it is relevant to the seminar in some non-trivial respect. All term paper topics need to be approved by the first week of October at the latest. Your paper must include presentation and critical discussion of relevant theory in primate behavioral ecology, selected research

findings with a focus on one or more Neotropical primate taxa, a comparative component (preferably NW versus OW primates), and clear evidence of your own critical thinking. More detailed guidelines will be provided during the semester.

### Anthropology 564: Preliminary Schedule of Meetings and topics

| Date    | Meeting | Topic                                   | Content  |
|---------|---------|---|--|
| Sept 2  | 1       | Introduction                            |  |
| Sept 9  | 2       | Overview of Neotropical primates        | Classification, distribution, review of major taxa.<br>Taxonomic debates and conservation issues.<br>Begin "Five New World Primates"<br>Sign up for moderating and summarizing sessions. |
| Sept 16 | 3       | Foraging Strategies I                   | Early theoretical and practical approaches in historical and comparative context.<br>Classic case studies  |
| Sept 23 | 4       | Foraging Strategies II                  | Recent developments in foraging theory<br>Optimal foraging, cognitive mapping<br>Case studies and field experiments<br><b>Moderation / summaries begin</b>                               |
| Sept 30 | 5       | Predation Risk, Vigilance               | Classic and recent vigilance theory<br>Arboreal vs. terrestrial predation risk<br>Selected NW vs. OW case studies  |
| Oct 7   | 6       | Predatory behavior                      | Hunting by Cebus versus Pan<br>Cooperative hunting (?)<br>Hunting by lesser known primates?<br>Relevance for models of human evolution   |
| Oct 14  | 7       | Social organization and social behavior | Socioecological models then and now<br>Selected NW vs. OW case studies<br>Fission-fusion societies   |

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|--------|----|--|---|
| Oct 21 | 8  | Sex differences and female reproductive strategies               | Sexual dimorphism; sex differences in foraging and social behavior; mating seasonality, sex ratios.<br>Female-female and female-male relationships.                 |
| Oct 28 | 9  | Life Histories and reproduction.<br>Male reproductive strategies | Brain and body size, interbirth intervals.<br>Paternal recognition, infanticide, dispersal.<br>Male-male relationships.<br>Case study: the 'peculiar' callitrichids |
| Nov 4  | 10 | Film: <i>three monkeys</i>                                       | Comparative behavioral ecology, reproductive strategies revisited.<br>Popular perceptions of primates and the role of natural history films                         |
| Nov 11 | 11 | Complex social behavior and cognitive abilities                  | grooming, alliances, reconciliation and reciprocity; triadic awareness. Captive studies and their relevance for the field   |
| Nov 18 | 12 | Socially transmitted learning and group traditions I             | Begin Traditions book   |
| Nov 25 |    | No class (Thanksgiving Break)                                    |   |
| Dec 2  | 13 | Socially transmitted learning and group traditions II            |   |
| Dec 9  | 14 | Socially transmitted learning and group traditions III           |   |