

Fall 2006
Primate Behavioral Ecology and Sociobiology
Anthro Bio 568

Instructor: Dr. Jacinta Beehner
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Classroom: 418 West Hall
Class time: T,Th 2:30-4:00 (class will start promptly at 2:40)
Course website: <https://ctools.umich.edu/portal>

Course description: *You need to already have taken Anthro 368 to be registered for this course.* This is an advanced undergraduate/graduate course examining the ecology and behavior of non-human primates. Using mainly primary research articles, we will explore several themes in primate behavioral ecology including reproductive strategies, sexual selection, behavioral endocrinology, cooperation and conflict, cultural transmission, and primate cognition. The objectives of this class are (1) to provide an overview to some of the exciting research areas in primate behavior and (2) to help bring advanced undergraduates up to graduate level in their reading, understanding, and writing about primate-related topics. Emphasis will be placed on critical thinking and clear and concise writing.

Course format: The format of the course will be a mix of both discussion and lecture. We'll start out each class with student-led discussions for the readings due for that day. In some cases, we'll break up into groups to argue one side of an issue or another. This discussion will take up about half of the class period. Then we'll take a short break. The second half of the class will be an informal lecture to help get students oriented for *next week's* readings.

Course readings: All course readings in this course will be primary research articles or review articles. This course assumes you already have "textbook" primate information well under your belt. If you feel you are behind on a particular topic, please re-read the appropriate chapter in Strier's *Primate Behavioral Ecology* textbook (3rd edition) to get you up to speed. PDFs for each assigned paper will be available on the CTools website for this class. Please have the papers read BEFORE we meet for class that day. A stimulating discussion will depend on your thorough reading of the assigned papers. This syllabus, all handouts and all papers will also be available on the CTools website.

Course assignments: *All readings are to be completed before you come to class on the day listed.* Twice during the semester, you will moderate the discussion of the papers (first come, first serve basis, so choose early!). This means leading the discussion by offering (1) a summary of the readings AND (2) your critical evaluation of the readings. Foster debate by presenting opposing views on a subject. For those not moderating the discussion, I still expect active participation. *All writing assignments are due in my mailbox by 10:00 am on the day due.* Late assignments will be reduced by a half-letter grade for each day it is late. All assignments will be further explained in

handouts. In brief, the short writing assignments will be from 1-5 pages in length (depending on assignment). The final paper will be 15-20 pages in length. I encourage topics for final papers to be “question”-oriented rather than “species”-oriented. More about this later.

Course evaluation:

- Moderating discussions.....15%
- Participation in discussions.....15%
- 6 short writing assignments x 5% each (see handout for each assignment).....30%
- Final paper (see final paper handout).....40%

Optional lectures: The University of Michigan is fortunate this semester to host a weekly primate seminar series given by some of the leading experts in the field of primate behavior ecology. These lectures are listed on the course syllabus in italics. Lectures will be held from 1-2 pm every Friday afternoon of the semester mostly in 4448 East Hall. I encourage each of you to try to keep this hour free on Friday so you can attend these lectures. You will also have the option of basing your short writing assignments on these lectures (there will always be an alternative assignment for those that can't attend the lectures).

Course schedule (*OPTIONAL lectures are listed in italics*)

Date	Topic	Readings
Week One Introduction		
Sep 05 (Tu)	Course overview and writing skills	<i>Elements of Style</i> (on reserve in library) Gopen & Swan 1990
Sep 07 (Th)	Primate social systems	Kappeler & van Schaik 2002 Barton 2000 Gursky 2002
<i>Sep 08 (Fr)</i>	<i>No lecture</i>	
Week Two Male reproductive strategies		
Sep 12 (Tu)	Sexual selection & males	Paul 2002 Setchell et al. 2005
Sep 14 (Th)	Male-male competition	Delgado 2006 Van Hooff 2000 Kitchen et al. 2003
<i>Sep 15 (Fr)</i>	<i>Dawn Kitchen, Ohio State University: Loud calls as indicators of fighting ability in primates: Insights from baboons and howler monkeys 1-2pm, 4448 East Hall</i>	

<u>Week Three</u>	<u>Female reproductive strategies</u>	<u>**Short writing 1 due on Friday</u>
Sep 19 (Tu)	Sexual selection & females	Small 1989 Drea 2005 Waite et al. 2003
Sep 21 (Th)	Female-female competition	Sterck et al. 1997 Isbell & Young 2002 Kleindorfer & Wasser 2004
Sep 22 (Fr)	<i>Pat Wright, SUNY Stony Brook: Aging in the wild: senescence, social affiliation, and cognition in Madagascar's lemurs</i> 1-2 pm, B844 East Hall	
<u>Week Four</u>	<u>Behavioral endocrinology</u>	
Sep 26 (Tu)	Testosterone and aggression	Monaghan & Glickman 1993 Ross et al. 2004 Mazur et al. 1992
Sep 28 (Th)	Glucocorticoids and the stress response	Sapolsky 1999 Romero 2004 Sapolsky 1990
Sep 29 (Fr)	<i>Jacinta Beehner, University of Michigan: Stress and stress management in wild baboons;</i> 1-2pm, 4448 East Hall	
<u>Week Five</u>	<u>Cooperation and affiliative relationships</u>	<u>**Short writing 2 due on Friday</u>
Oct 03 (Tu)	Kin selection and reciprocal altruism	Silk 2002 Silk et al. 2003
Oct 05 (Th)	Collective action problems	Nunn 2000 Nunn & Deaner 2004
Oct 06 (Fr)	<i>John Mitani, University of Michigan: Kinship and behavior in wild chimpanzees</i> 1-2 pm, B844 East Hall	
<u>Week Six</u>	<u>Aggression within and between the sexes</u>	
Oct 10 (Tu)	Male aggression and the "challenge hypothesis"	Wingfield et al. 1990 Muller & Wrangham 2004
Oct 12 (Th)	Sexual coercion	Clutton-Brock & Parker 1995 Soltis et al. 1997
Oct 13 (Fr)	<i>Martin Muller, Boston University: Male mate choice and sexual coercion in wild chimpanzees; 1-2pm, 4448 East Hall</i>	

<u>Week Seven</u>	<u>Cultural transmission</u>	<u>**Short writing 3 due on Friday</u>
Oct 17 (Tu)	FALL BREAK (no class)	no readings
Oct 19 (Th)	Social learning and traditions	Laland & Hoppitt 2003 Perry & Manson 2003
Oct 20 (Fr)	<i>Susan Perry, UCLA: Social learning and traditions in wild white-faced capuchin monkeys; 1-2pm, 4448 East Hall</i>	
<u>Week Eight</u>	<u>Comparative cognition</u>	
Oct 24 (Tu)	The comparative method	Rendall & diFiore 1995 Mitani et al. 1996
Oct 26 (Th)	The social intelligence hypothesis	Jolly 1966 Humphrey 1976 Bond et al. 2003
Oct 27 (Fr)	<i>Thore Bergman, University of Michigan: Comparing behavior and communication across baboons and gelada monkeys 1-2pm, 4448 East Hall</i>	
<u>Week Nine</u>	<u>Social relationships 1: Intra-sexual relationships</u>	<u>**Short writing 4 due on Friday</u>
Oct 31 (Tu)	Dominance hierarchies & kinship	Drews 1993 Silk et al. 2004
Nov 02 (Th)	Social knowledge	<i>How Monkey's See the World</i> (Ch 3, "Social Knowledge") Kamil 2004 Bergman et al. 2003
Nov 03 (Fr)	<i>Dorothy Cheney/Robert Seyfarth, University of Pennsylvania: The function of social cognition; 1-2 pm, B844 East Hall</i>	
<u>Week Ten</u>	<u>Social cognition</u>	
Nov 07 (Tu)	Brain size, cognition, intelligence	Dunbar 1998 Cheney & Seyfarth 2002 Reader & Laland 2002
Nov 09 (Th)	Theory of mind	<i>How Monkey's See the World</i> (Ch 8, "Attribution") Santos et al. 2006
Nov 10 (Fr)	<i>Brian Hare, Max Planck Institute for Evolutionary Anthropology: A chimpanzee perspective on unique features of human social cognition; 1-2pm, 4448 East Hall</i>	

<u>Week Eleven</u>		
<u>Social relationships 2: Parent-offspring relationships</u>		
Nov 14 (Tu)	Parent-offspring conflict	**Short writing 5 due on Friday Bateson 1994 (and response) Maestripieri 2002 Maestripieri 2000
Nov 16 (Th)	Paternal care	Garber 1997 Buchan et al. 2004
Nov 17 (Fr)	<i>Susan Alberts, Duke University: Not just mother love: paternity and paternal kinship in wild baboons; 1-2pm, 4448 East Hall</i>	
<u>Week Twelve</u>		
<u>Communication</u>		
Nov 21 (Tu)	Vocal, visual, and other communication systems	Gouzoules & Gouzoules 2002 Gerald 2001
Nov 23 (Th)	THANKSGIVING BREAK (no class)	<i>no readings</i>
Nov 24 (Fr)	<i>No lecture</i>	
<u>Week Thirteen</u>		
<u>Social relationships 3: Inter-sexual relationships</u>		
Nov 28 (Tu)	Mating systems	**Intro & outline due on Friday Woodroffe & Vincent 1994 Fuentes 1998 van Schaik & Kappeler 1997
Nov 30 (Th)	Friendships & infanticide	Sussman et al. 1995 Palombit 2000 Palombit et al. 1997
Dec 01 (Fr)	<i>Ryne Palombit, Rutgers University: Friendship & conflict between the sexes in chacma and olive baboons; 1-2pm, 4448 East Hall</i>	
<u>Week Fourteen</u>		
<u>Economic decisions</u>		
Dec 05 (Tu)	The biological marketplace	Noë & Hammerstein 1994 Noë & Hammerstein 1995 Barrett et al. 1999
Dec 07 (Th)	Fairness and equality	Brosnan 2006 Brosnan & deVaal 2003 Silk et al. 2005
Dec 08 (Fr)	<i>Sarah Brosnan, Emory University: Fairness and prosocial behavior in nonhuman primates; 1-2pm, B844 East Hall</i>	
<u>Week Fifteen</u>		
<u>Last week of classes</u>		
Dec 12 (Tu)	Wrap-up and final paper issues	
Dec 15 (Fr)	**Final paper due	