

9-2002

## ANTH 420.01: Human Behavioral Ecology

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### Recommended Citation

McKay, Kimber Haddix, "ANTH 420.01: Human Behavioral Ecology" (2002). *Syllabi*. 1309.  
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**Human behavioral ecology**

Anthropology 420  
Tues/Thurs 3:40–5:00  
Fall 2002

**Kimber Haddix McKay, Professor**

Office: 222 Social Sciences  
Office hours: Wednesday 10:00-12:00  
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**I. What is human behavioral ecology?**

Human behavioral ecologists study human behavior from an evolutionary perspective. Why do some groups practice polygyny (when men have multiple wives) while others are polyandrous (when women have multiple husbands) and what similar patterns exist in non-humans? Why are there similarities in mating patterns between humans and other species, dependent upon environmental context, and why are the “choices” that are being made in non-humans and humans often very similar? To what extent are these similarities based upon shared or comparable evolutionary histories, or environmental context, or upon decision options that are homologous?

At the most fundamental level, human behavioral ecology is about the ways in which humans respond to varying environmental conditions and how those responses may have been shaped in some way by our evolutionary history. Using predictions derived from evolutionary theory, and measuring the way that humans use different “currencies” (usually fitness estimates or calories), human behavioral ecologists make predictions about behavior (reproductive strategies, hunting strategies, etc.) and test those predictions against empirical data collected in field studies in different cultures. The extent to which people actually maximize the currency of interest in a variety of different environmental and social contexts has occupied much of the research of human behavioral ecologists. The research can in general be classified into three categories: resource acquisition and distribution strategies, life history strategies, and reproductive strategies. In this course we study the development of this field, its connection to social and political environments in American anthropology, and the contributions it has made to the study of human behavior in general.

**II. Reading**

Readings for the course will be drawn from the following sources:

Betzig, L., 1997 Human Nature, New York: Oxford University Press  
Hill, K. and Hurtado, A.M., 1996 Ache Life History, New York: Aldine de Gruyter  
Hrdy, S.B., 1999 Mother Nature: Maternal Instincts and How They Shape the Human Species, New York: Ballantine Publishing Group  
Smith, E.A. and Winterhalder, B. 1992 Evolutionary Ecology and Human Behavior, New York: Aldine de Gruyter

### III. Grading

Grades for the course will be determined as follows:

Two minor exams: 25%

Final exam: 25%

Poster with short oral presentation: 50% (details to follow)

Students who miss exams or the in-class poster/oral presentation date must have made arrangements with the instructor or have written documentation (medical or family emergency) explaining their absence. Attendance will not be taken in every class but all students are expected to be present on poster presentation days and oral presentation days, and role will be taken on those days.

### IV. Schedule

Dates	Topic	Reading	Notes
9/3	Whither evolutionary theory in anthropology? Social, political, and academic dimensions of this issue,	Handout (P&B Chpt 1) S&W Chpt 2	
9/5			
9/10	Why anthropology resists evolutionary theory and its application to human behavior: Conflicts in the Yanomami Amazon and in the American Anthropological Association—Chagnon's <u>The Fierce People</u> , a measles epidemic, and the Atomic Energy Commission	Betzig Chpt 1	
9/12		S&W Chpt 1	
		Handouts on Chagnon	Meet in library @ 4pm for class on Thursday
		Film: <i>The Fierce People</i>	
9/17	Methodological issues—how to test evolutionary (and other) hypotheses? Hypothetico-deductive vs inductive approaches to research, and why this distinction is important to human behavioral ecologists	Reread S&W 11-17	
9/19		H&H 1-18	
		Kuhn Handout	
9/24	Film: !Kung San foragers (1)		Make notes during film (following your handouts)
9/26	Film: !Kung San foragers (2)		
10/1	Sociobiology and early approaches to studying fertility from a human behavioral ecological perspective	Irons Chpts 3&4 in Betzig	
10/3			
	First minor exam on Thursday		First minor exam Thursday in class

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<b>Dates</b>	<b>Topic</b>	<b>Reading</b>	<b>Notes</b>
10/8	Sociobiology—power, mates, and resources	Chagnon Chpts 9&10 in Betzig	
10/10	Film: Kawelka: Ongka's Big Moka		
10/15	Recent directions in the study of human fertility from an evolutionary perspective—bushman birth spacing revisited	Blurton Jones Chpts 7&8 in Betzig	
10/17		Hrdy Part 1 (pgs 3-96) Hrdy Chpt 8	
10/22	Differential Parental Investment: Why some parents prefer sons and kill daughters	Dickemann Handout Cronk Handout Levine Handout	
10/29	More on differential parental investment	Skinner Handout Hrdy Chpts 39 & 40 in Betzig	
10/31			
11/5	Marital strategies and reproduction: polygyny	Borgerhoff Mulder Chpts 11&12 in Betzig	
11/7		Hartung Chpts 31&32 in Betzig	
11/12			No class on Tuesday (Election Day)
11/14			
	Second minor exam on Thursday		Second minor exam Thursday in class
11/19	Marital strategies and reproduction: polyandry	Haddix Handouts	
11/21	Case Study: The Ache	H&H Chpt 2 H&H Chpt 13	
11/26	Finish The Ache		
11/28	Processes of aging (senescence) in human reproduction: the Grandmother Hypothesis	Hill & Hurtado Chpts 13&14 in Betzig Pavelka & Fedigan handout	

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<b>Dates</b>	<b>Topic</b>	<b>Reading</b>	<b>Notes</b>
12/3	Resource acquisition and evolutionary theory: Inuit hunters and children's work in the Torres Strait	Hawkes Chpt 9 in S&W	
12/5		Smith Chpts 5&6 in Betzig Bliege and Bird Handout	No class on Thursday (Thanksgiving)
12/10 12/12	Poster sessions/oral presentations of research project		
12/16	Final Exam 3:20 – 5:20pm		Exam in same room as class

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