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September 6, 2004

*Environmental Anthropology (16:070:544:01) and (cross-listed)*  
*Seminar in Human Dimensions of Environmental Change (16-378-501-01)*

Required Books:

At the Cook/Douglass Bookstore:

Igoe, Jim. 2004. Conservation and Globalization: A Study of National Parks and Indigenous Communities from East Africa to South Dakota. 2004. Belmont, CA: Wadsworth/Thomson Learning. ISBN 0-534-61317-9 (1-800-423-0563) paper

Kusel, Jonathan and Elisa Adler, eds. 2003. Forest Communities, Community Forests. Lanham, MD: Rowman & Littlefield Publishers. ISBN 0-7425-2585-6 paper.

McCay, Bonnie J. and James M. Acheson, eds. 1987. The Question of the Commons. Tucson: University of Arizona Press. Paper

Available from Prof. McCay:

McCay, Bonnie J. 1998. Oyster Wars and the Public Trust. Tucson: University of Arizona Press. Hardbound; available from author @ \$10.00.

The course will focus on the following topics: historical and cross-cultural dimensions of human-environmental interactions; relationships between local communities and conservation efforts in forests, fisheries, wildlife and other forms of natural resource management; and how property institutions affect patterns of environmental change and stewardship.

Guests will speak to related topics, such as ethnobotany and the continued process of domestication (George Morren); methodological issues in the study of environmental change, with a focus on forest fires (A.P. Vayda), aesthetics, identity, and landscapes in southern Africa (David Hughes); conservation and community in Nepal (Chris Tarnowski).

## Course Proceedings:

Required are 5 short-essay assignments, based on readings; and a 12-15 page research paper, plus a presentation in class based on this research. The on-line program, eCompanion, will be available as a source of downloadable readings, course updates, and other matters: [www.rutgersonline.net](http://www.rutgersonline.net)

## Tentative Course Schedule:

Tuesdays, 2:50-5:50, Cook Office Building 2<sup>nd</sup> floor Conference Room (55 Dudley Road, Cook Campus

1. Sept. 7<sup>th</sup>: Overviews, Issues in Population, Human Evolution, and Environment
2. Sept. 14<sup>th</sup> "The commons" as a model for understanding human ecology and environmental problems
3. Sept. 21<sup>st</sup> Guest speaker: George Morren: Ethnobotany and Domestication
4. Sept. 28<sup>th</sup> Fisheries and the Commons
5. October 5<sup>th</sup> Guest speaker: David Hughes; The promises and perils of community-based wildlife management
6. October 12<sup>th</sup> Indigenous communities, environmental change, and conservation
7. October 19<sup>th</sup> Community-Based Natural Resource Management: Forests
8. October 26<sup>th</sup> Ibid
9. November 2<sup>nd</sup> Guest speaker: Chris Tarnowski
10. November 9<sup>th</sup> Property Matters and Environmental Justice
11. November 16<sup>th</sup> Guest: Andrew P. Vayda
12. November 23<sup>rd</sup> The Challenges of Interdisciplinary Work
13. November 30<sup>th</sup> Various, and Student Presentations
14. December 7<sup>th</sup> Student Presentations
15. December 14<sup>th</sup> Student Presentations [Note: this date is during the "reading period" after classes end; we will use it for student presentations].

## **Week 1: Sept. 7th**

(Note: all "pdf" files are available on web-site):

### 1. Overviews, Issues in Population and Environment

- Cohen, Joel E. 2003. Human population: the next half century. Science 302 (14 Nov): 1172-1175. pdf  
Jenkins, Martin. 2003. Prospects for biodiversity. Science 302 (15 Nov): 1175-1177. pdf  
Stocking, M.A. 2003. Tropical soils and food security: the next 50 years. Science 302 (21 Nov): 1356-1359. pdf

### 2. Human Evolution and the Environment

#### Adaptation and Natural Selection

Mead, Simon, Michael P. H. Stumpf, Jerome Whitfield, Jonathan A. Beck, Mark Poulter, Tracy Campbell, James B. Uphill, David Goldstein, Michael Alpers, Elizabeth M. C. Fisher, and John Collinge. 2003. Balancing selection at the prion protein gene consistent with prehistoric Kurulike epidemics. Science 300 (25 April): 640-643. pdf.

## Human Adaptations and the Environment: Archaeological Records

Michael J. Heckenberger, Afukaka Kuikuro, Urissapa Tabata Kuikuro, J. Christian Russell, Morgan Schmidt, Carlos Fausto, Bruna Franchetto. 2003. Amazonia 1492: Pristine Forest or Cultural Parkland? Science 301 (19 September): 1710-1714. [sciencemagazine.org](http://sciencemagazine.org) pdf.

### Week 2: September 14<sup>th</sup>

#### 3. "The commons" as a model for understanding human ecology and environmental problems

In McCay and Acheson, The Question of the Commons, "The Human Ecology of the Commons" (McCay and Acheson), "Embedded Systems and Rooted Models: The Grazing Lands of Botswana and the Commons Debate" (Peters), "Institutional arrangements for resolving the commons dilemma" (Ostrom), and "An economic view of the tragedy of the commons" (Townsend and Wilson)

Dietz, Thomas, Elinor Ostrom, and Paul Stern. 2003. The Struggle to Govern the Commons. Science 302 (12 December): 1907-1912. on-line (pdf).

"The Commons Game" (in class simulation)

Assignment #1: due Sept. 28<sup>th</sup>: Referring to at least 3 of the four chapters above, write an essay on the "tragedy of the commons" model, pro and con. This should be about 4 or 5 pages long, single spaced, double spaces between paragraphs.

### Week 3: September 21<sup>st</sup>

Guest, Professor George E.B. Morren.

Ethnobotany and the domestication process in Papua New Guinea

Readings to be assigned

### Week 4: September 28<sup>th</sup>

Assignment #1 due and discussed in class.

#### 4. Fisheries and the Commons

In The Question of the Commons: Chapters 2 (Acheson), 3 (Berkes), 7 (Carrier), 9 (McCay), 11 (Vondal), 14 (Taylor), 15 (Townsend and Wilson), 16 (Anderson), 17 (Pinkerton), 18 (Durrenberger and Pálsson).  
(reading to be distributed among class members).

Pauly, Daniel, Jackie Alder, Elena Bennett, Villy Christensen, Peter Tyedmers, and Reg Watson. 2003. The future for fisheries. Science 302 (21 Nov): 1359-1361. pdf

Ludwig, D., R. Hilborn, and C. Walters. 1993. Uncertainty, resource exploitation, and conservation:

lessons from history. Ecological Applications 3: 547-549. [pdf?]

Assignment #2, due October 12th: Essay on topic such as, What and where are the social and cultural dimensions of fisheries management? What about the role of community/communities? In what kinds of fisheries or communities might the requirements of adaptive governance in complex systems (Dietz et al. 2003, op cit.) be feasible, and in which not?

### **Week 5: October 5<sup>th</sup>**

#### **The promises and perils of community-based wildlife management in southern Africa**

5. Guest: David McDermott Hughes

Readings: to be assigned (including Igoe 2004)

Film: Tchuma Tchato

### **Week 6: October 12<sup>th</sup>**

Assignment #2 due; discussed.

#### **6. Indigenous communities, environmental change, and conservation**

Igoe, Jim. 2004. Conservation and Globalization: A Study of National Parks and Indigenous Communities from East Africa to South Dakota.

Slides: Ngorongoro Crater, Tarangire National Park

Nations, James D. (2001). Indigenous peoples and conservation: Misguided myths in the Maya tropical forest. In: Maffi, Luisa (ed.): On Biocultural Diversity: Linking Language, Knowledge, and the Environment. Smithsonian Institution Press, Washington, DC, USA. [or substitute article].

### **Week 7: October 19<sup>th</sup> and Week 8: October 26<sup>th</sup>**

#### **7. Community-Based Natural Resource Management: Forests**

Kusel, Jonathan and Elisa Adler, eds. 2003. Forest Communities, Community Forests. Lanham, MD: Rowman & Littlefield Publishers. (chapters to be distributed among class members)

Slides: Community Forests in Southern Mexico

Assignment #3, due November 2<sup>nd</sup>. Analysis of community forestry case(s).

### **Week 9: November 2<sup>nd</sup>**

Assignment #3 due; discussed.

#### **8. Guest: Christopher Tarnowski: Communities and Forestry in Nepal**

Readings: to be assigned

## **Week 10: November 9<sup>th</sup>**

### **9. Property Matters and Environmental Justice: from Oysters to Beaches and Environmental Quality**

McCay, Bonnie J. 1998. Oyster Wars and the Public Trust. Tucson: University of Arizona Press. [chapters to be distributed among class members]

Singer, J.W., 2000. "Property and social relations: from title to entitlement," pp. 3-19 in C. Geisler and G. Daneker, eds., 2000. Property and Values; Alternatives to Public and Private Ownership. Washington, DC: Island Press. On-line

Runge, C. F. et al. 2000. "Public sector contributions to private land value," pp. 41-62 in C. Geisler and G. Daneker, eds., 2000. Property and Values; Alternatives to Public and Private Ownership. Washington, DC: Island Press. On-line

## **Week 11: November 16<sup>th</sup>**

### **10. The Challenges of Interdisciplinary Work:**

#### **Conceptual Frameworks: Entitlements, Panarchy, and Vulnerability**

Fraser, Evan D.G. 2003. Social Vulnerability and Ecological Fragility: Building Bridges between Social and Natural Sciences Using the Irish Potato Famine as a Case Study. Conservation Ecology 7(2): 9. [online: <http://www.consecol.org/vol7/iss2/art9>.] (note: journal is now Ecology & Society)

#### **The Integrated Assessment Framework**

Rudel, Thomas K. 1999. Critical Regions, Ecosystem Management, and Human Ecosystem Research, Society and Natural Resources 12: 257-260 (1999).

#### **Interdisciplinary Approach to Experience-Based or "Traditional" Knowledge**

Neis, Barbara; Schneider, David C.; Felt, Lawrence; Haedrich, Richard L.; Fischer, Johanne; Hutchings, Jeffrey A. (1999). Fisheries assessment: what can be learned from interviewing resource users? Canadian Journal of Fisheries and Aquatic Sciences 56(10): 1949-1963 (October). On-line: [http://www.nrc.ca/cgi-bin/cisti/journals/rp/rp2\\_cont\\_e?cjas](http://www.nrc.ca/cgi-bin/cisti/journals/rp/rp2_cont_e?cjas).

#### **The Challenges of Working Together**

McCay, Bonnie J. 1988. "Muddling through the Clam Beds: Cooperative Management of New Jersey's Hard Clam Spawner Sanctuaries." Journal of Shellfish Research 79(2): 327-340. [on web-site]

Campbell, Lisa M. 2003. Challenges for interdisciplinary sea turtle research: perspectives of a social scientist. Marine Turtle Newsletter 100: 28-32. pdf.

Redclift, M. 1998. Dances with wolves? Interdisciplinary research on the global environment. Global Environmental Change 8: 177-182.

#### **Participatory Research**

Johnson, Nancy; Ravnborg, Helle Munk; Westermann, Olaf; Probst, Kirsten (2002). User participation in watershed management and research. Water Policy 3(6): 507-520. <http://www.elsevier.com/locate/issn/13667017>

Senkowsky, Sonya (2002). Mingling technologies: Tracking walrus with telemetry and Inuit harpoons. BioScience 52(9): 774-779 (September).

**Week 12: November 23<sup>rd</sup>**

11. Guest: Andrew P. Vayda

Readings to be assigned

**Week 13: November 30<sup>th</sup>**

Student presentations  
Various topics and readings

**Week 14: December 7<sup>th</sup>**

Student presentations  
Various topics and readings

**Week 15: December 14<sup>th</sup>**

Student presentations and celebration