

**ANTH 525 Ethnoecology
Spring 2015**

Tues/Thurs 10:05-11:20, Gambrell 412

Instructor: Dr. Gail E. Wagner, 432 Gambrell, 777-6548; gail.wagner@sc.edu
Office Hours: Wednesday 9:30-10:30; Thursday 11:30-12:30, or easily by email appointment

Required Textbooks: Fikret Berkes (2012) *Sacred Ecology, 3rd ed.*; Keith Basso (1996) *Wisdom Sits in Places*; other assigned readings are posted on Blackboard.

Blackboard is heavily used. Be sure to check the course Blackboard page often.

Attendance is required: if you cannot attend class, you should not take this class!

Ethnoecology is the way in which people understand and participate in human-plant-animal-natural interactions. It is a system of knowledge that is gained through direct interaction with local nature. **In this course we examine ethnoecological issues and case studies under four broad frameworks: native viewpoints, ecoliteracy, biocultural diversity, and ecosystem management.**

Overview

This seminar course is deliberately participatory and personal, mirroring the subject of Ethnoecology itself: **I promise that completing this course will change your life and your relationship with nature.** We have no tests, and instead will spend a fair amount of class time outdoors, observing and experiencing nature. The required readings may look daunting, but in reality many of them are very short, pretty much all of them are very interesting, and they are carefully scheduled against the time needed for other assignments. Instead of tests, we closely observe local nature, answer questions about and discuss readings, annotate some readings, write essays, keep a journal about nature observations, participate in a case study, and produce individual short videos about ethnoecology. Case studies concentrate on the southwestern desert, Arctic, and Amazonian jungle. **No background in anthropology, biology, ecology, or making videos is needed, and instructional how-to is provided for all assignments.**

Knowing Nature Project

Throughout the semester, each student will closely observe nature in and out of class in a delimited area. Observations will include journaling, sketching, photography (a cell phone camera will work fine), and production of an academic, 4-minute YouTube video using the above materials. The class will register with and contribute data to the National Phenology Network. After evaluation, the videos will be posted publically on an ANTH 525 YouTube channel.

All students will annotate 7 of our readings. All students are expected to contribute to discussion in class each day. All students will write 6 essays in which they critically reflect on ideas from the readings, following an assigned Style Guide for citations. All students will compile a short, one-page comparison of two assigned professional codes of ethics. All students will monitor an area on which they will keep a journal (with weekly entries on a class wiki) and make a short YouTube video about their piece of nature using one of the course frameworks. Compilation of the video will include approval of a video prospectus and a storyboard prior to making the video. Each student will make a

presentation of their video at the conclusion of the semester, during the final examination time.

Undergraduate students will annotate (generally 1-3 paragraphs) 7 required articles (marked in bold and underlined on the syllabus). Each of their 6 essays are expected to be 2-3 pages in length. They complete online 2-point quizzes on 20 assigned (non-annotated) readings prior to class on the day the reading is discussed. They can gain extra credit by taking the additional 13 online quizzes for the graduate-student readings.

Graduate students are graded to a higher standard than are undergraduate students, and on displaying leadership in all classroom discussions. Graduate students are assigned a heavier reading load than are undergraduate students. They will annotate 7 required articles (marked in bold and underlined on the syllabus), plus 4 more readings of their choice (one from the graduate readings from each section of the course). Their essays are expected to be 4-5 pages in length.

Learning Objectives. Students who complete this class can:

- Describe the basic issues in ethnoecology in each of the four course frameworks (indigenous viewpoints, ecoliteracy, biocultural diversity, ecosystem management);
- Compare ethnoecological management to western ecosystem management;
- Gain skills and experience in observing nearby nature and participating in a national study on climate change;
- List and discuss the variety of ethical issues involved in human subject research and intellectual property rights;
- Develop effective discussion skills and skills in thinking critically;
- Develop electronic-based research skills and techniques;
- Improve annotation and writing skills, and be able to follow a professional style guide;
- Develop digital storytelling skills and be able to make and post a YouTube video;
- Develop a sense of intellectual curiosity through observation, research and investigation.

ACADEMIC INTEGRITY: You are expected to practice the highest possible standards of academic integrity. Any deviation from this expectation will result in a minimum of your failing the assignment, and may result in additional, more severe disciplinary measures up to and including referring you to the Office of Academic Integrity. For more information, see the Carolina Community Student Handbook. Remember that the first tenet of the Carolinian Creed is, "I will practice personal and academic integrity."

CLASSROOM BEHAVIOR: You are expected to practice mindfulness: display respect and consideration for others in the class and for the places we meet. Contribute to balance and harmony in our academic environment.

GRADES WILL BE BASED ON THE FOLLOWING out of 200 possible points:

Each day missed beyond 3 days (the equivalent of 1.5 weeks) = 1% off your total score.

| Undergraduate students | points | percent | Notes |
|---------------------------------|---------------|----------------|------------------------|
| 6 Essays (10 pts each) | 60 | 30% | (2-3 pages each) |
| Nature video and process | 60 | 30% | (4 minutes) |
| Nature journal in class wiki | 35 | 17.5% | (1x-2x entries weekly) |
| 7 Annotations (2 or 3 pts each) | 20 | 10% | (1-3 paragraphs each) |
| Participation/assignments | 15 | 7.5% | |
| 20 online reading quizzes | 10 | 5% | (divide total by 4) |

| Graduate students | points | percent | Notes |
|---------------------------------|---------------|----------------|-----------------------|
| 6 Essays (12 pts each) | 66 | 33% | (4-5 pages each) |
| Nature video and process | 60 | 30% | (4 minutes) |
| 11 Annotations (2-2.5 pts each) | 27 | 13.5% | (1-3 paragraphs each) |
| Participation/assignments | 20 | 10% | |
| Nature journal in class wiki | 16 | 8% | (2x entries weekly) |
| 33 Online reading quizzes | 11 | 5.5% | (divide total by 6) |

Grading Scale:

| | | |
|----|-----------------|------------|
| A | 181.5-200.0 pts | (91-100%) |
| B+ | 173.5-181.0 pts | (87-90.5%) |
| B | 159.5-173.0 pts | (80-86.5%) |
| C+ | 151.5-159.0 pts | (76-79.5%) |
| C | 129.5-151.0 pts | (65-75.5%) |
| D+ | 121.5-129.0 pts | (61-64.5%) |
| D | 100.0-121.0 pts | (50-60.5%) |
| F | <100.0 pts | (<50%) |

Films shown in class:

Coughlan, Donald (18 min)

1997 *Hopi: Corn is Life*. American Indian Video Series.

David, Wade

2003 Dreams from Endangered Cultures. TED talks. (21:51 min)

http://www.ted.com/talks/wade_davis_on_endangered_cultures/

Easterling, Nancy

2001 *Take a Closer Look: Plants and the Cherokee*. (26 min)

Cooperative effort by the North Carolina Botanical Garden, The Museum of the Cherokee Indian, and Laurel Hill Press.

Jennings, Katie

2006 *Teachings of the Tree People: The Work of Bruce Miller*. (58 min)

An Islandwood Production, Washington.

Turner, Terry (52 min)

1989 *The Kayapo: Out of the Forest*. (Disappearing World Series) Granada Television.

Proposed Syllabus

[U=Undergraduate students; G=Graduate students]

underlined = annotation due

- Jan** 13 - Why Ethnoecology and Knowing Nature are Important.
- 15 - **Knowing Nature Project** initiation and imagining
Read: Berg 2005; Lee and Balick 2006; Schultz 2009
- 20 - Traditional Ecological Knowledge/Indigenous Knowledge Overview
How to annotate and follow Style Guide
Read 1: Berkes-Sacred, Intro and Ch. 1 (**G1:** also Hunn 1999)

Native Viewpoints

- 22 - Worldview Structure
Read 2: Margolin 2005, Salmon 2000 (**G2:** also Johnson and Murton 2007)
- 27 - *Teachings of the Tree People* (58 min)
Read 3: Berkes-Sacred, Ch. 5 (**G3:** also Anderson 1996)
Assigned: Essay on Personal Worldview
- 29 - Knowledge of Place
Read 4: Basso 1996, Ch. 1
- Feb** 3 - Place-based Knowledge
Read 5: Basso 1996, Ch. 2-3
DUE: Essay on Personal Worldview
- 5 - Wisdom Sits in Places
Read: Basso 1996, Ch. 4 and Epilogue

Ecoliteracy

- 10 - Naming Nature
Read 6: Anggoro et al. 2008; Balmford et al. 2002
DUE: Essay on Native Viewpoints
- 12 - Children and Nature
Read 7: Bixler and Floyd 1997; Ruiz-Mallén et al. 2013

- 17 - Virtual Nature
Read 8: Zaradic and Pergams 2007; Dissanayake 2007 (**G4**: also Levi and Kocher 1999)
- 19 - Botanical Knowledge
Read 9: Wagner 2008 (**G5**: also Biró et al. 2014)
- 24 - Knowing Nature
Plants and the Cherokee (26 minutes)
Read: Pilgrim et al. 2008 (**G6**: also Reyes-García et al. 2013)

Biocultural Diversity

- 26 - Introduction to Biocultural Diversity.
Dreams from Endangered Cultures (22 min)
Read 10: Carder 2008:10-11; Maffi 2008:34-35; Martin 2008:12-15 (all in *Resurgence* magazine) (**G7**: also Nazarea 1998)
- Mar**
- 3 - Language and Meaning
Read 11: Maffi 2002; Brown 2000
DUE: Essay on Ecoliteracy
 - 5 - Ethnoscience **[Midpoint]**
Read 12: Berkes-Sacred, Ch. 3
- 9-13 - Spring Break, no classes**
- 17 - Ethical Issues and Declaration on the Rights of Indigenous Peoples
Read 13: Mander 2008 (pp. 6-9 in *Resurgence* magazine); Berkes-Sacred, Ch. 2 pp. 36-38, 51-52; skim Declaration (**G8**: also Posey 1999)
DUE: Comparison of AAA and ISE Codes of Ethics
 - 19 - Indigenous Viewpoints
Read: Posey 1998 (**G9**: also Posey 2002a)
 - 24 - Western Viewpoints
Read 14: Lindemann-Mathies and Bose 2008 (**G10**: also Anadon et al. 2009; McClatchey et al. 2009)

Ecosystem Management

- 26 - Rethinking Ecosystem Management
Read 15: Berkes-Sacred, Ch. 4; Berkes et al. 2000
Assigned: Of Silt and Ancient Voices: Water and the Zuni Land and People
DUE: essay on Biocultural Diversity
- 31 - **Case Study:** Water and the Zuni Land and People
The Hopi: Corn is Life (18 minutes)
Read: Part II (Becoming an expert witness)(**G:** Wall & Massayesva 2004)
- Apr** 2 - **Case Study:** Water and the Zuni Land and People
Read: Part III Expert Witness Teams Go to Court
- 7 - Resilience and Cycling
Read: **Holling 2001** (**G11:** also Reyes-García et al. 2014)
- 9 - **Case Study:** Saving Amazonian Ecosystems
The Kayapo: Out of the Forest (52 minutes)
Read 16: Flannigan 2005; Posey 2002b, 2008:16-17 in *Resurgence* magazine) (**G12:** also Balée 2013)
- 14 - **Case Study:** Cree Hunting and Fishing
Read 17: Berkes-Sacred, Ch. 6-7
- 16 - Comanagement Systems
Read 18: **Ollson et al. 2004**; Pretty 2003
- 21 - Reimagining Ecosystem Management
Read 19: Berkes-Sacred, Ch. 9, 11; Berkes 2004 (**G13:** also Lertzman 2009)
DUE: essay on Ecosystem Management
- 23 - Advocating Ethnoecology
Read 20: Hunn 2006; Berkes-Sacred, Ch. 12 (**G:** also Ellis 2005; Reid et al. 2014)

DUE: by noon on Tuesday, April 28: Final Essay

DUE: by noon on Friday, May 1: Video loaded onto YouTube

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| Final Exam time is Tuesday, May 5th, 9:00-11:30 am Presentation of Knowing Nature videos |
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ANTH 525 Ethnoecology Reading List Spring 2015

Readings not in our textbooks are listed in chronological order, and will be discussed on the day listed (**G**: required of graduate students only, who will lead discussion on that reading for that day). Make certain to refer to the syllabus for the full list of required readings, and to see whether a reading is marked solely for graduate students (here indicated by an asterisk*). **Bolded readings** are required to be annotated, due on the day indicated.

Jan. 15

Berg, Peter

2005 Finding Your Own Bioregion. In *Ecological Literacy: Educating Our Children for a Sustainable World*, edited by Michael K. Stone and Zenobia Barlow, pp. 126-131. Sierra Club Books, San Francisco, CA.

Lee, Roberta and Michael J. Balick

2006 Chronobiology: It's About Time. *Explore* 2(5):442-445.

Schultz, P. Wesley

2009 The Moral Call of the Wild: A Study Suggests that Spending Time in Nature Changes Our Values. *Scientific American* online, December 1.
<http://www.scientificamerican.com/article.cfm?id=moral-call-of-the-wild>
Accessed 6 January 2011.

Jan. 20 [Berkes-Sacred, Intro and Ch. 1]

* Hunn, Eugene S.

1999 The Value of Subsistence for the Future of the World. In *Ethnoecology: Situated Knowledge/Located Lives*, edited by Virginia D. Nazarea, pp. 23-36. University of Arizona Press, Tucson.

Native Viewpoints

Jan. 22

* Johnson, Jay T. and Brian Murton

2007 Re/placing Native Science: Indigenous Voices in Contemporary Constructions of Nature. *Geographical Research* 45(2):121-129.

Margolin, Malcolm

2005 Indian Pedagogy: A Look at Traditional California Indian Teaching Techniques. In *Ecological Literacy: Educating Our Children for a Sustainable World*, edited by Michael K. Stone and Zenobia Barlow, pp. 67-79. Sierra Club Books, San Francisco, CA.

Salmon, Enrique

2000 Kincentric Ecology: Indigenous Perceptions of the Human-Nature Relationship. *Ecological Applications* 10(5):1327-1332.

Jan. 27 [Berkes-Sacred, Ch. 5]

* Anderson, E. N.

1996 Learning from the Land Otter: Religious Representation of Traditional Resource Management. In *Ecologies of the Heart: Emotion, Belief, and the Environment*, by E. N. Anderson, pp. 54-72. Oxford University Press, New York.

Ecoliteracy

Feb. 10

- Anggoro, Florencia K., Sandra R. Waxman, and Douglas L. Medin
2008 Naming Practices and the Acquisition of Key Biological Concepts: Evidence from English and Indonesian. *Psychological Science* 19(4):314-319.
- Balmford, Andrew, Lizzie Clegg, Tim Coulson, and Jennie Taylor
2002 Why Conservationists Should Heed Pokemon. *Science* 295(5564):2367.

Feb. 12

- Bixler, Robert D. and Myron F. Floyd
1997 Nature is Scary, Disgusting, and Uncomfortable. *Environment and Behavior* 29(4):443-462.
- Ruiz-Mallén, Isabel, Carla Morsello, Victoria Reyes-García, and Renata Barros Marcondes De Faria
2013 Children's Use of Time and Traditional Ecological Learning. A Case Study in Two Amazonian Indigenous Societies. *Learning and Individual Differences* 27:213-222.

Feb. 17

- Dissanayake, Ellen
2007 Comment on "Videophilia". *Journal of Developmental Processes* 2(1):145-147.
- * Levi, Daniel and Sarah Kocher
1999 Virtual Nature: The Future Effects of Information Technology on our Relationship to Nature. *Environment and Behavior* 31(2):203-226.

Zaradic, Patricia A. and Oliver R. W. Pergams

- 2007 Videophilia: Implications for Childhood Development and Conservation. *Journal of Developmental Processes* 2(1):130-144.

Feb. 19

- * Biró, Éva, Dániel Babai, Judit Bódis, and Zsolt Molnár
2014 Lack of Knowledge or Loss of Knowledge? Traditional Ecological Knowledge of Population Dynamics of Threatened Plant Species in East-Central Europe. *Journal for Nature Conservation* 22:318-325.
- Wagner, Gail E.
2008 Botanical Knowledge of a Group of College Students in South Carolina, U.S.A. *Ethnobotany Research & Applications* 6:443-458.

Feb. 24

Pilgrim, Sarah, Leanne C. Cullen, David J. Smith, and Jules Pretty

- 2008 Ecological Knowledge is Lost in Wealthier Communities and Countries. *Environmental Science & Technology* 42(4):1004-1009.
- * Reyes-García, Victoria, Ana C. Luz, Maximilien Gueze, Jaime Paneque-Gálvez, Manuel J. Macía, Martí Orta-Martínez, Joan Pino, and TAPS Bolivian Study Team
2013 Secular Trends on Traditional Ecological Knowledge: An Analysis of Changes in Different Domains of Knowledge among Tsimane' Men. *Learning and Individual Differences* 27:206-212.

Biocultural Diversity

Feb. 26

Carder, Maurice

2008 A Word of Difference. *Resurgence* 250:34-35.

Maffi, Luisa

2008 Cultural Vitality. *Resurgence* 250:10-11.

Martin, Gary J.

2008 Restoring Resilience. *Resurgence* 250:12-15.

* Nazarea, Virginia D.

1998 Of Memories and Varieties: Complementation between Cultural and Genetic Diversity. In *Cultural Memory and Biodiversity*, by Virginia D. Nazarea, pp. 1-14. University of Arizona Press, Tucson.

Mar. 3

Brown, Cecil H.

2000 Folk Classification: An Introduction. In *Ethnobotany: A Reader*, edited by Paul E. Minnis, pp. 65-68. University of Oklahoma Press, Norman.

Maffi, Luisa

2002 Endangered Languages, Endangered Knowledge. *International Social Science Journal* 173:385-393.

Mar. 17

AAA Codes of Ethics

Declaration on the Rights of Indigenous Peoples

ISE Code of Ethics

Mander, Jerry

2008 Declaration of Dignity. *Resurgence* 250:6-9.

* Posey, Darrell A.

1999 Safeguarding Traditional Resource Rights of Indigenous Peoples. In *Ethno-Ecology: Situated Knowledge/Located Lives*, edited by Virginia D. Nazarea, pp. 217-229. University of Arizona Press, Tucson.

Mar. 19

Posey, Darrell A.

1998 Diachronic Ecotones and Anthropogenic Landscapes in Amazonia: Contesting the Consciousness of Conservation. In *Advances in Historical Ecology*, edited by William Balée, pp. 104-118. Columbia University Press, New York.

* 2002a The Science of the Mebengokre. In *Kayapo Ethnoecology and Culture*, by Darrel A. Posey, edited by Kristina Plenderleith, pp. 3-11. Routledge, London.

Mar. 24

- * Anadon, Jose Daniel, Andres Gimenez, Ruben Ballestar, and Irene Perez
2009 Evaluation of Local Ecological Knowledge as a Method for Collecting Extensive Data on Animal Abundance. *Conservation Biology* 23(3):617-625.
- Lindemann-Mathies, Petra and Elisabeth Bose
2008 How Many Species Are There? Public Understanding and Awareness of Biodiversity in Switzerland. *Human Ecology* 36:731-742.
- * McClatchey, Will, David Reedy, Valentina Savo, Alonso Verde, and José Fajardo Rodríguez
2014 The Long-Term Investment Strategy: Orchardists Observing and Reacting to Change. *Journal of Ethnobiology* 34(3):335-358.

Ecosystem Management

Mar. 26 [Berkes-Sacred, Ch. 4]

- Berkes, Fikret., Johan Colding, and Carl Folke
2000 Rediscovery of Traditional Ecological Knowledge as Adaptive Management. *Ecological Applications* 10:1251-1262.

Mar. 31

- * Masayesva, Virgil and Dennis Wall
2004 People of the Corn: Teachings in Hopi Traditional Agriculture, Spirituality, and Sustainability. *American Indian Quarterly* 28(3&4):435-453.

Apr. 7

Holling, C. S.

- 2001 Understanding the Complexity of Economic, Ecological, and Social Systems. *Ecosystems* 4:390-405.
- * Reyes-García, Victoria, Laura Aceituno-Mata, Laura Calvet-Mir, Teresa Garnatje, Erik Gómez-Baggethun, Juan J. Lastra, Ricardo Ontillera, Montserrat Parada, Montserrat Rigat, Joan Vallès, Sara Vila, and Manuel Pardo-de-Santayana
2014 Resilience of Traditional Knowledge Systems: The Case of Agricultural Knowledge in Home Gardens of the Iberian Peninsula. *Global Environmental Change* 24:223-231.

Apr. 9

- * Balée, William
2013 From Their Point of View. In *Cultural Forests of the Amazon: A Historical Ecology of People and Their Landscapes*, by William Balée, pp. 123-131. University of Alabama Press, Tuscaloosa.
- Flannigan, Jenna
2005 Where the Inside Meets the Outside: Exploring Kayapo Cosmology and Cultural Maintenance. *Undercurrent* 2(1):17-24.
- Posey, Darrel A.
2002b From Warclubs to Words. The Kayapo Indian Protests Against Amazonian Dams: Successes, Alliances, and Unending Battles. In *Kayapo Ethnoecology and Culture*, by Darrel A. Posey, edited by Kristina Plenderleith, pp. 221-233. Routledge, London.
- 2008 Sacred Creation. *Resurgence* 250:16-17.

Apr. 16

Olsson, Per, Carl Folke, and Fikret Berkes

- 2004 Adaptive Comanagement for Building Resilience in Social-Ecological Systems. *Environmental Management* 34(1):75-90.

Pretty, Jules

- 2003 Social Capital and the Collective Management of Resources. *Science* 302:1912-1914.

Apr. 21

Berkes, Fikret

- 2004 Rethinking Community-Based Conservation. *Conservation Biology* 18(3): 621-630.

*Lertzman, Ken

- 2009 The Paradigm of Management, Management Systems, and Resource Stewardship. *Journal of Ethnobiology* 29(2):339-358.

Apr. 23

* Ellis, Stephen C.

- 2005 Meaningful Consideration? A Review of Traditional Knowledge in Environmental Decision Making. *Arctic* 58(1):66-77.

Hunn, Eugene

- 2006 Meeting of Minds: How do we Share our Appreciation of Traditional Environmental Knowledge? *Journal of the Royal Anthropological Institute* SI:S143-S160. [SI=Special Issue]

* Reid, Michael G., Colleen Hamilton, Sarah K. Reid, William Trousdale, Cam Hill, Nancy Turner, Chris R. Picard, Cassandra Lamontagne, and H. Damon Matthews

- 2014 Indigenous Climate Change Adaptation Planning Using a Values-Focused Approach: A Case Study with the Gitga'at Nation. *Journal of Ethnobiology* 34(3):401-424.