Lecture 02, 27 Aug 2003
What is Conservation Biology?

Conservation Biology
ECOL 406R/506R
University of Arizona
Fall 2003

Kevin Bonine
1. Review Names and Faces
2. New folks need photos and 3x5 cards

3. VanDyke Ch1,
   Meffe and Carroll Ch1,
   Noss 1999

Ansel Adams etc.:

http://dizzy.library.arizona.edu/branches/ccp/
The Center for Creative Photography presents:

Reception and Curator’s Slide Lecture: Edward Weston and the Late Miss Mather

Friday, August 29, Reception, 5-6 pm/Lecture, 6 pm, Auditorium

Beth Gates Warren, exhibition curator and author of Margrethe Mather & Edward Weston: A Passionate Collaboration, is an historian of photography and the former director of Sotheby's New York Photographs Department. She has lectured and taught classes at such institutions as The New School, the International Center of Photography, New York University, and the Phillips Museum of Art in Washington, D.C.

GENERAL INFORMATION

CURRENT EXHIBITIONS: Margrethe Mather and Edward Weston: A Passionate Collaboration

Edward Weston: A Vision Conserved

DATE: July 19 - October 12, 2003

HOURS: The gallery is open Monday- Friday, 9 a.m. to 5 p.m.; weekends, noon to 5 p.m. CCP will be closed May 26 for Memorial Day, and July 4 for Independence Day.

ADMISSION: CCP exhibitions, PrintViewings, and events are always FREE and open to the public.

LOCATION: Center for Creative Photography; The University of Arizona; 1030 North Olive Road, Tucson, Arizona, 85721 (In the Fine Arts Complex, SE corner of Park Ave. & Speedway)

PARKING: Convenient parking is available at the Park Avenue Garage at the NE corner of Park Avenue and Speedway Boulevard. The pedestrian underpass gives you direct access to the CCP.

INFORMATION: Call (520) 621-7968 or visit http://www.creativephotography.org

PRESS CONTACT: Nancy Solomon, (520) 626-5215, solomonn@u.library.arizona.edu

What Else Is On View:

Lobby (South)
Tseng Kwong Chi: Selections from The Expeditionary Series

Lobby (East)
Selections from the Ansel Adams Collection

Lobby (Hallway)
Mars Pathfinder, UA Lunar & Planetary Lab:
Figure 1.1  Estimated global human population size from the last Ice Age to the present, illustrating the exponential nature of human population growth since the Industrial Revolution. Note that the human population took hundreds of thousands of years to reach 2 billion, but then more than doubled in 40 years. (Modified from various sources.)

Meffe and Carroll 1997

Human Impacts (population and technology)
When and what were the origins of the discipline?
1. Intrinsic Value

2. Ecosystem services

3. Aesthetic, spiritual enrichment
Conservation vs. Preservation
Ralph Waldo Emerson
Henry David Thoreau
John Muir
  -Sierra Club 1892
  -NGO
  -Education, Lobby

Yellowstone National Park 1872
Yosemite National Park 1890

ESA 1917 --> Nature Conservancy 1950
“To Roosevelt, it was clear that a handful of individuals and their companies were reaping most of the profits from natural resources that rightfully belonged to all citizens.” Van Dyke 2003, p. 10

early 1900s “Trustbuster”

Resources for use, but forever.
The greatest good for the greatest number for the longest time

resource conservation ethic:
1. Equity
2. Efficiency

Figure 1.3  VanDyke 2003
Theodore Roosevelt, the twenty-sixth president of the United States (1901–1909), greatly supported the role of the federal government in conservation.

Figure 1.4  VanDyke 2003
Gifford Pinchot, early head of the U.S. Forest Service and father of the resource conservation ethic. From an original staff of only 123 in 1898, Pinchot built the Forest Service to an organization of 1,500 people administering 150 million acres of public land within 10 years.
Commodities (A) vs. Processes (B)

-Bioaccumulation

-Environmental degradation threaten human health

**Figure 1.5**
Aldo Leopold, early twentieth-century conservationist and father of the modern land ethic.

Van Dyke 2003

**Game Management 1932**
**A Sand County Almanac (1966)**
-evolution/ecology land ethic

**Figure 1.6**
Is conservation biology a distinct discipline?

Biodiversity (levels and scales)
Prevent degradation and loss

1. Scarcity and Abundance

2. Value laden and mission driven

3. Diversity and complexity good
   Untimely extinction bad

4. Evolution is good (genotypic variation)
   - process

5. Biotic diversity has intrinsic value
Figure 1. Cancer biology and conservation biology are both synthetic, multidisciplinary sciences. The dashed line indicates the artificial nature of the borders between disciplines and between “basic” and “applied” research. See text.

6. Crisis Discipline?
Figure 1.8
Diagrammatic representation of an arrangement of local populations ("metapopulation") based on Andewartha and Birch (1954). Empty circles represent favorable habitats that individuals do not occupy. Partially or completely filled circles represent favorable habitats and relative densities of individuals in them as a proportion of the habitat's maximum capacity. Crosses indicate habitats in which local populations recently became extinct.

Van Dyke 2003
END
‘3x5’ card

Registered? 406R or 506R?

Name (and what you prefer to be called)
   - Distinguishing characteristic

Email address

Year in school

Major

Relevant courses taken, or research projects, etc.

Why are you taking this course?

hold until photo