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

Kevin Bonine
1. VanDyke Ch3, Meffe and Carroll (Callicott) Ch2 Leopold Readings

- Texts at scholars
- Email addresses to share
Is Conservation Biology a Discipline? (e.g., Noss 1999, Soule 1985)

- Responsible Advocacy
Ethics, Values, Philosophy...

Monetizing
discount rate
rates of growth and reproduction
Economic development short sighted?

BCA

Valuation methods

willingness to pay/ accept
tavel cost
existence value
contingent valuation
bequest value
## Shift Burden of Proof/Responsibility

**SMS (safe minimum standard)**

<table>
<thead>
<tr>
<th>Instrumental</th>
<th>Developers</th>
<th>Conservationists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Instrumental</td>
<td></td>
<td>B of P</td>
</tr>
<tr>
<td>2 Intrinsic also</td>
<td>B of P</td>
<td></td>
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<tr>
<td>3 BCA</td>
<td></td>
<td>B of P</td>
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<tr>
<td>4 SMS</td>
<td>B of P</td>
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</tbody>
</table>
Ethics, Values, Philosophy...

Rolston Essay p. 35 in Van Dyke text

- species vs. species in the system
  (definition of species)

- value of evolutionary trajectory

- extinction and doors
Ethics, Values, Philosophy...

Ethics:
constrain self-serving behavior in
difference to some other good

Tragedy of the Commons

Role of religions?
<table>
<thead>
<tr>
<th>WORLDVIEW</th>
<th>TYPE OF VALUE</th>
<th>MOTIVATION FOR CONSERVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Judeo-Christian stewardship</td>
<td>Theocentric</td>
<td>Preserve the ecological systems that God has commanded humans to care for, as exemplified by the placing of man in the garden to “work it and take care of it” (Genesis 2:15). Humans should respect and not destroy God’s handiwork.</td>
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<tr>
<td>2. Deep ecology and related value systems</td>
<td>Ecocentric</td>
<td>The rights or intrinsic values attributed to nonhuman nature place limitations on human prerogatives to use or alter nature and must be respected.</td>
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<tr>
<td>3. Transformationalist/transcendentalism</td>
<td>Anthropocentric</td>
<td>Respect the spiritual value of nature, which provides solace to consider life’s deepest questions and can cure human alienation.</td>
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<tr>
<td>4. Constrained economics</td>
<td>Anthropocentric</td>
<td>Resource use is primarily a problem of human economics. Because avoiding irreversible damage to the environment is beneficial, the environment should be preserved when the economic cost is not too great. Low risk taking, common sense, and avoiding irreversible damage to the environment are justification.</td>
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<tr>
<td>5. Scientific naturalism</td>
<td>Science-centered/</td>
<td>Scientific theories of evolution and ecology reveal necessary limits on population growth and violence to the land. Dynamism and contextualism are emphasized.</td>
</tr>
<tr>
<td></td>
<td>ecocentric</td>
<td></td>
</tr>
<tr>
<td>6. Ecofeminism</td>
<td>Anthropocentric feminism</td>
<td>Because man’s domination over nature is symbolic of his domination over women, preserving the environment fights to cure both environmental and social problems.</td>
</tr>
<tr>
<td>7. Pluralism/pragmatism</td>
<td>Anthropocentric</td>
<td>Philosophy, although it can serve as a tool to solve moral problems, is not emphasized. Rather, practical problem solving and ethical principles are used to address environmental issues.</td>
</tr>
</tbody>
</table>

The Four Spikes (Guy McPherson)

1 Consumption

2 Human Population Growth

3 Extinctions

4 Global Change
1. Should conservation biologists explain the value of biodiversity in purely instrumental terms or should they also include reasons invoking intrinsic value?

2. How respond to the question of “What good is it?” (e.g. Forbish’s lousewort)

3. How do we know that humans, or anything, have intrinsic value?

4. Discuss Leopold’s quote: “Perhaps our grandsons, having never seen a wild river, will never miss the chance to set a canoe in singing waters.”

5. How does this quote from Leopold: sit with the idea of intrinsic value?

For one species to mourn the death of another is a new thing under the sun. The Cro-Magnon who slew the last mammoth thought only of steaks. The sportsman who shot the last pigeon thought only of his prowess. The sailor who clubbed the last auk thought of nothing at all. But we, who have lost our pigeons, mourn the loss. Had the funeral been ours, the pigeons would have hardly mourned us. In this fact... lies objective evidence of our superiority over beasts (Leopold 1966:117).
END