

Lecture 01, 23 Aug 2005
Introduction and photos

Conservation Biology
ECOL 406R/506R
University of Arizona
Fall 2005

Kevin Bonine
Kathy Gerst

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Conservation Biology 406R/506R

1. Introductions
2. 3x5 cards
3. Syllabus
4. Topics



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'3x5' card

Registered? 406R or 506R? In Lab?

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?

What do you hope to get out of this course?

hold until photo

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1. Overall course objectives

- Grasp scientific material (content & literacy)
- Provide real-world relevancy and applications
- Place in context of students' lives
- Foster life-long appreciation and respect for:
 - field, findings, organisms, biodiversity, etc.

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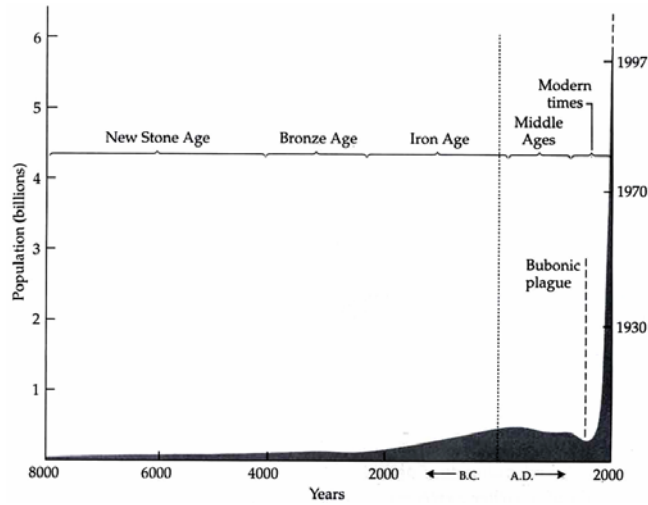


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Humans on planet Earth



Meffe and Carroll 1997

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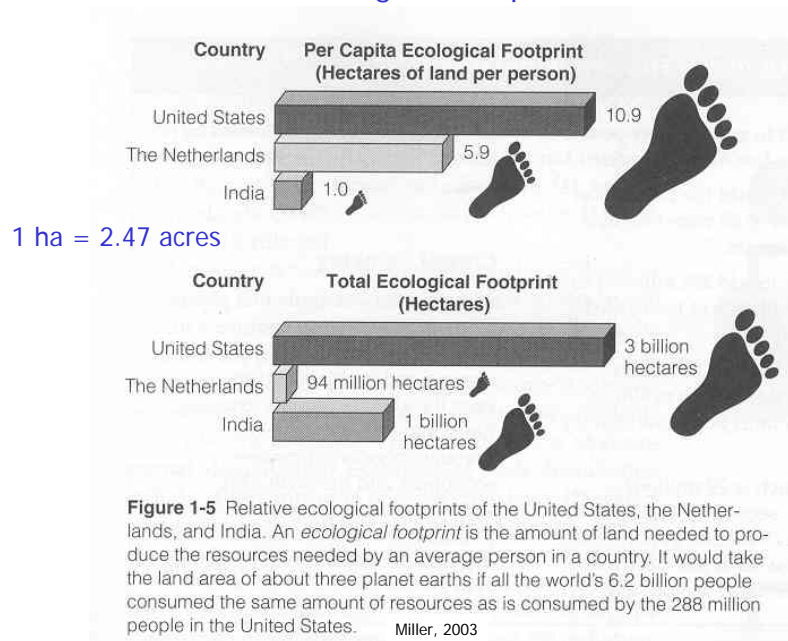
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Ecological Footprint



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Ecological Footprint

Def: Number of productive acres (fishing grounds, forests, agricultural fields) needed to maintain a given lifestyle

- Driving (roads, vehicles, fuel, etc.)
- Housing (land and resources for construction)
- Food (land, transport, inputs, trophic level)
- Other goods and services

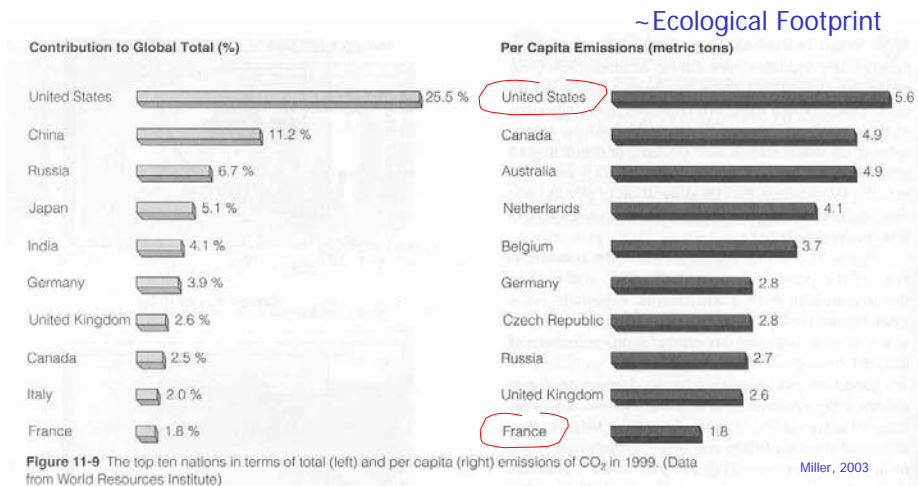
US citizens use **24 acres/person** on average
(Canadians 17, Italians 9, Pakistanis 2)

As of ~2002, planet has about 4.5 acres/person

Sustainability?

(1 acre = 0.405 hectare)

Contribution to Greenhouse Gas Emissions and Global Warming



Ecological Footprint
HOMEWORK!



How many planets needed, at 4.5 acres/person, to live like the mean ECOL406R/506R student?

$$= \text{mean}/4.5 = ??$$

AVERAGE ECOLOGICAL FOOTPRINT IN USA IS 24 ACRES PER PERSON.
WORLDWIDE, THERE EXIST 4.5 BIOLOGICALLY PRODUCTIVE ACRES PER PERSON.

<http://www.earthday.net/footprint/index.asp>

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