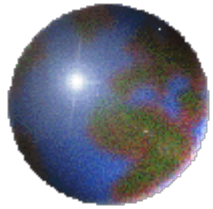


Values, Ethics, and Sustainability ¹

Lecture #1



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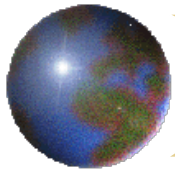
Edmonton Lifelong Learners Association (ELLA)

--- Course Number EL 21 ---

University of Alberta, Education South 165, April 30-May 11, 2012

David Thompson will teach the last week (May 14-18, 2012)

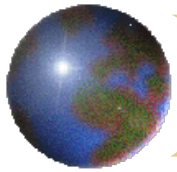




Three objectives

- 1. Values: what drives and influences them?**
- 2. Ethics and principles that determine our path, collectively and individually; and**
- 3. Transitioning to a sustainable path and the Earth Charter as a blueprint to save us from ourselves.**



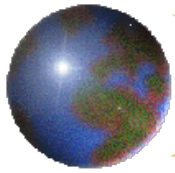


Epidemiology

The study of the distribution and determinants of disease in populations and its application to the control of health problems

❏ *Our focus is on preventing harms to populations*

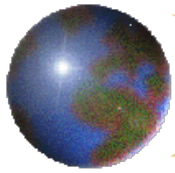




Epidemiology

- ❖ **Our job is to **inform policy** with a view to reducing harms by preventing disease and premature mortality at the community level**
- ❖ *How can we more effectively deliver on this obligation under global ecological change, including climate change?*

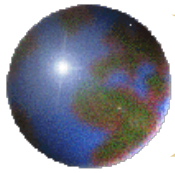




Can we *prevent* large-scale effects? ⁵

- ❏ **Primordial *prevention***
- ❏ **Primary *prevention***
- ❏ **Secondary *prevention***
- ❏ **Tertiary *prevention***





Identify levels at which we operate

⊕ **Micro lens** – *e.g., physician-patient*

⊞ **On the ground ...** (advocate for patients; reactive; “**Can’t see the wood for the trees**”)

⊕ **Meso lens** – *e.g., community*

⊞ **From an elevation of about 100 meters**

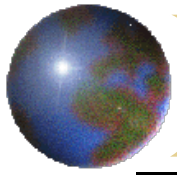
(advocate for communities; more reactive than proactive; “**Somewhat removed and can see the forest close-up**”)

⊕ **Macro lens** – *e.g., country/world*

⊞ **From an elevation of about 10,000 meters**

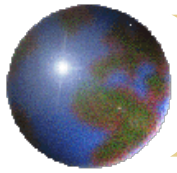
(advocate for global health and well-being; proactive; **observes from more distance and thus can see the whole rather than only the parts**”)





Courtesy of NASA...*Planet Earth*

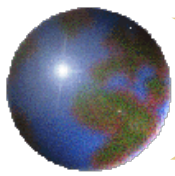




Epidemiology

→ Our focus in epidemiology is on **community** health; on *preventing* disease, disability and premature death in communities

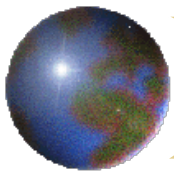




Contemporary global-scale issues with major human health implications



- ⊕ **Global geo-climatic system changes** (e.g., global warming, sea level rise, ocean acidification); CO₂ levels continue to rise
- ⊕ **Population growth** with rapid urbanization and the development of mega-cities; Mass forced and voluntary migrations
- ⊕ **Expansion of consumption-intensive lifestyles** (e.g., into China and India, each with 1B + populations)
- ⊕ **Increasing global and within-country disparities**
- ⊕ **Fresh water declines everywhere**
- ⊕ **Resurgence of old diseases and emergence of new** (e.g., malaria and tuberculosis, HIV/AIDS, SARS)
- ⊕ **Species extinctions**
- ⊕ **The growth-bound paradigm is entrenched**
- ⊕ **The global debt crisis and the threat of economic collapse**



EVIDENCE: Profound Declines in Ecological Integrity Demonstrated by ALL Markers of Biodiversity

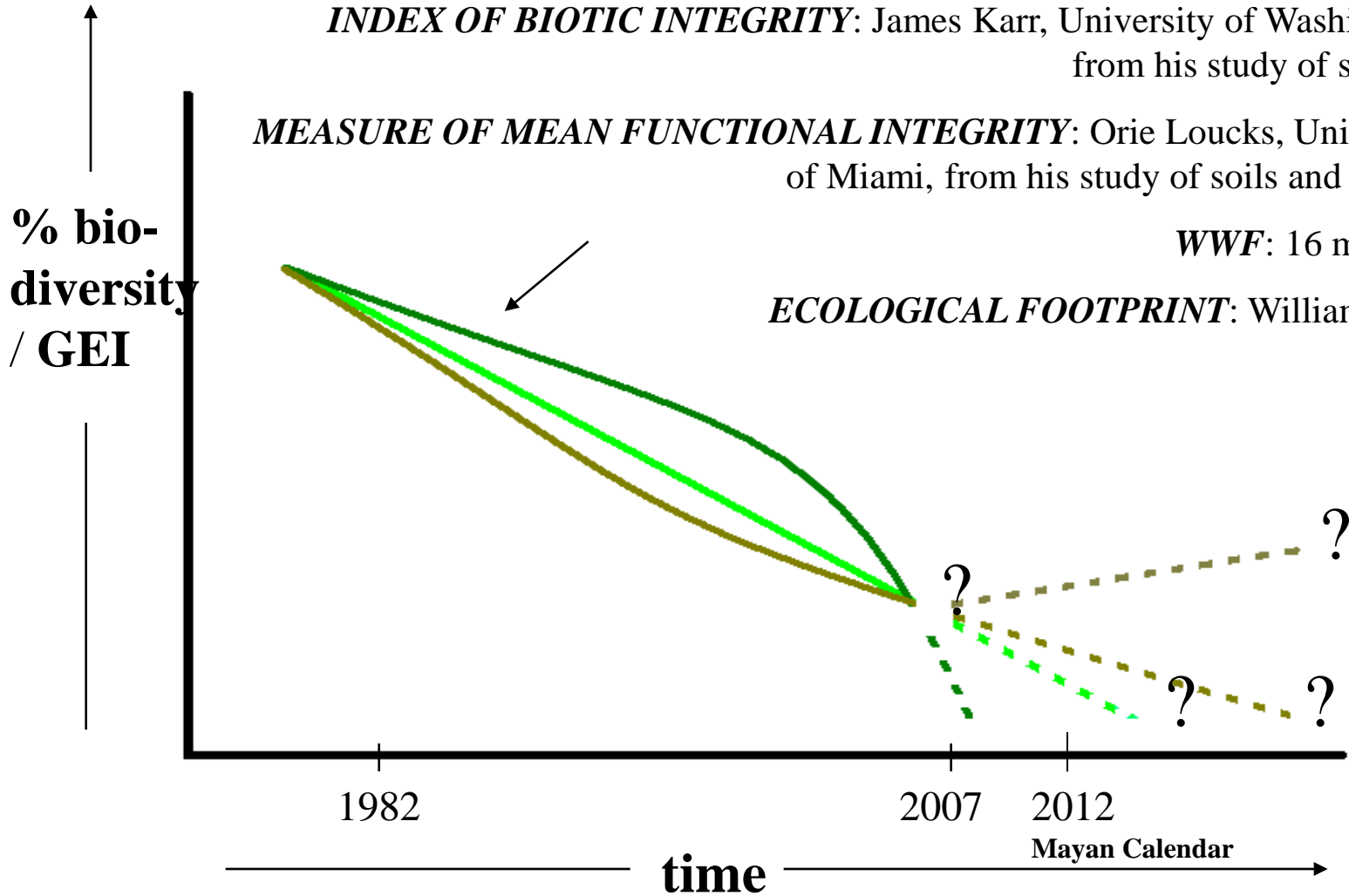
The past 25 years have seen an ~50% reduction in biodiversity as measured by **INDEPENDENTLY-DERIVED** indicators

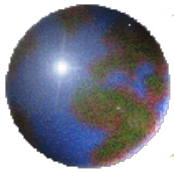
INDEX OF BIOTIC INTEGRITY: James Karr, University of Washington, from his study of streams

MEASURE OF MEAN FUNCTIONAL INTEGRITY: Oriie Loucks, University of Miami, from his study of soils and forests

WWF: 16 markers

ECOLOGICAL FOOTPRINT: William Rees

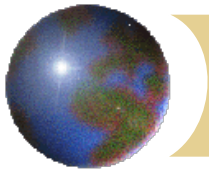




Hypocrites ...

- ✚ Let us look to ourselves first, and then to the enablers in the absence of incentives to make better choices ...





Questions?

