

Advancing a broader understanding of environmental research and applications: crossing the discipline boundaries

Sustainability in Teaching Workshop, FU Berlin, 16-18
October 2017

The Advanced School for Environmental Studies

Approach: A Networking Hub School

- Graduate students
- Specialized programs with a common core
- Purpose: Education and facilitation of a multi-disciplinary team approach to environmental issues
- Producing **broad-minded specialists**



Who is part of the advanced school?

Faculty/School	Fields (Partial)
Natural Sciences	Ecology, Oceanography, Atmospheric Sciences, Earth Sciences, Environmental Chemistry, Hydrology
Agriculture	Environmental and natural resource economics, Soil and water Sciences
Social Sciences	Geography, Political science, Policy, Planning, Economics
Humanities & education	Environmental history, geo-archeology, environmental education
Medicine	Environmental health
Law	Environmental law
Business Administration	Businesses and environment, Green marketing, Environment and insurance

And how do you make them cross the discipline boundaries?

PhD students environmental workshop

The venue – Tur-Sinai organic farm:



Out of campus, isolated
friendly environment

PhD students environmental workshop

3 days:

Day 1	Day 2	Day 3
Lecture by a university faculty member	Lecture by a university faculty member	Students presentations of their research
Students presentations of their own research	Students presentations of their own research	Presentations by the reading groups
	Discussion of scientific articles in small groups	

This order is meant to expose the students to different ideas, approaches and applications, before they start analyzing the articles in interdisciplinary study groups

Guest lectures

- Ecology – **Dror Hawlena**
- Politics – **Itay Fishhendler**
- History - **Ronnie Ellenblum**
- Public Health – **Hagai Levin**

Students presentations of their own research

- The goal: To give all participants an idea on what are the topics studied in the University in a way that will interest scholars from different areas.
- The students were asked to focus on the PROBLEM they study why it is IMPORTANT and INTERESTING, and what will be the OUTCOME.

They were asked NOT to focus on the DATA
(Some were more successful then others)

PhD students environmental workshop

Reading groups: students deal with ‘big’ interdisciplinary questions forcing them to think outside the box and beyond what they do in the day to day.



“Reading companionship”:

- A traditional approach taken from religious studies in which a pair of students analyze, discuss, and debate a shared text.
- It is based on three pairs of core practices: listening and articulating; wondering and focusing; and supporting and challenging.

Instructions to reading group members:

- List of reading groups is distributed in advance.
- Members of each group (3-4) come from different disciplines.
- Students must read the article before the workshop and prepare notes to discuss with their team members.
- After the discussion within the group (2-3 hours), students have to present the main idea of the article to the other teams and their insights from the discussion about it (as a team).

PhD students environmental workshop

Examples of articles topics:

Changes in the global value of ecosystem services

Robert Costanza^{a,*}, Rudolf de Groot^b, Paul Sutton^{c,d}, Sander van der Ploeg^b, Sharolyn J. Anderson^d, Ida Kubiszewski^a, Stephen Farber^e, R. Kerry Turner^f

REVIEW SUMMARY

MARINE CONSERVATION

Marine defaunation: Animal loss in the global ocean

Douglas J. McCauley,^{*} Malin L. Pinsky, Stephen R. Palumbi, James A. Estes, Francis H. Joyce, Robert R. Warner

My country or my planet? Exploring the influence of multiple place attachments and ideological beliefs upon climate change attitudes and opinions

Patrick Devine-Wright^{a,*}, Jennifer Price^b, Zoe Leviston^b

Toward a formal definition of water scarcity in natural-human systems

W. K. Jaeger,¹ A. J. Plantinga,² H. Chang,³ K. Dello,⁴ G. Grant,⁵ D. Hulse,⁶ J. J. McDonnell,⁷ S. Lancaster,⁸ H. Moradkhani,⁹ A. T. Morzillo,¹⁰ P. Mote,⁴ A. Nolin,⁸ M. Santelmann,¹¹ and J. Wu¹

Climate clashes? Weather variability, land pressure, and organized violence in Kenya, 1989–2004

Ole Magnus Theisen

Entering the Century of the Environment: A New Social Contract for Science

Jane Lubchenco

REVIEW

Global Consequences of Land Use

Jonathan A. Foley,^{1*} Ruth DeFries,² Gregory P. Asner,² Carol Barford,¹ Gordon Bonan,⁴ Stephen R. Carpenter,² F. Stuart Chapin,⁶ Michael T. Coe,^{1*} Gretchen C. Daily,⁷ Holly K. Gibbs,¹ Joseph H. Helkowski,¹ Tracey Holloway,¹ Erica A. Howard,¹ Christopher J. Kucharik,¹ Chad Monfreda,¹ Jonathan A. Pats,¹ I. Colin Prentice,⁸ Navin Ramankutty,¹ Peter K. Snyder²

REVIEW

Humanity's unsustainable environmental footprint

Arjen Y. Hoekstra^{1*} and Thomas O. Wiedmann^{2,3}

What did the workshop achieve?

A former student perspective - A better understanding of:

- What other PhD students study and how this may or may not relate to my PhD
- How different disciplines approach similar problems
- How to bridge over such differences and create a common dialogue
- How to create a shared understanding of environmental problems while including a variety of opinions and approaches

What did the workshop achieve?

A lecturer's (workshop leader) perspective:

- Interaction between students from different Faculties and disciplines is possible and enjoyable.
- The exercise on how to present complicated topics to non-expert peers is difficult but possible.
- Coping with unfamiliar scientific text is easier if done in a small discussion group.

Thank you!

And an open invitation to contact us in:

Amit Tubi (Geography):

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