Sub-Antarctic Biocultural Conservation Program
University of North Texas, Universidad de Magallanes & Institute of Ecology and Biodiversity

INTRODUCTION TO SUB-ANTARCTIC BIOCULTURAL CONSERVATION
Fall 2020

Core Professor:
Dr. Ricardo Rozzi, conservation biologist & philosopher, UNT (Dept. Philosophy, Sub-Antarctic Biocultural Conservation Program) http://philosophy.unt.edu/people/faculty/ricardo-rozzi

Collaborating & Invited Lecturers:
Dr. Bernard Goffinet, bryologist, University of Connecticut http://bryology.uconn.edu/bernard-goffinet/
Dr. James H. Kennedy, freshwater ecologist, UNT (Dept. Biology, Sub-Antarctic Biocultural Conservation Program) https://biology.unt.edu/people/james-kennedy
Dr. Roy May, environmental theologian and philosopher, Ecumenical Research Department, Costa Rica
Dr. Terra Schwerin Rowe, theologian and philosopher, UNT (Dept. Philosophy & Religion) http://philosophy.unt.edu/people/terra-schwerin-rowe

Course Catalogue Information:
PHIL 4053, 6780; BIOL 4053, 5053

Class Schedule:
Fall semester; Thursdays, 6:00-8:50 pm (Central Daylight/Standard Time); Remote Course via Zoom

Office Hours:
R. Rozzi: Video conference appointments by request to email: rozzi@unt.edu

Academic Dishonesty Policy:
Students are responsible for reading, understanding, and knowing UNT’s Academic Dishonesty Policy that can be found at: http://facultysuccess.unt.edu/academic-integrity. Academic dishonesty in this class is unacceptable and will not be tolerated in any form.

Disability Accommodation (ODA Statement):
The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to
implementation in each class. Students are strongly encouraged to deliver letters of accommodation by appointment. Faculty members have the authority to ask students to discuss such letters during their designated to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940-565-4323.

**Drop/Withdrawal Information:**
Last day to drop without professor’s approval is September 6th 2020. Other Drop/Withdrawal Information and other important Academic Dates can be found at http://registrar.unt.edu/registration/fall-add-drop. Before dropping the course, please come and discuss this with us.

**INTRODUCTION TO SUB-ANTARCTIC BIOCULTURAL CONSERVATION**

**Course Description:**
The course will provide students with an introduction to sub-Antarctic biological and cultural diversity, as well as to the approach of the Sub-Antarctic Biocultural Conservation Program at UNT. First, students will gain an overview of the biophysical dimensions (flora, fauna, geography, and climate), and the cultural dimensions (ethnography, environmental values, worldviews, and conservation initiatives) of the unique sub-Antarctic ecoregion of southwestern South America. Second, this approach is not restricted to subpolar regions, but has applications for other world’s regions. For this reason, we will also examine a novel conceptual framework to integrate environmental philosophy and ecological sciences, and their incorporation into practical and theoretical aspects of biocultural conservation, including education and ecotourism.

We will characterize the Anthropocene, and the particular problem of biocultural homogenization, including its expression in taxonomic chauvinism. Complementarily we will discuss approaches to biocultural conservation. First, we will address narratives. Regarding narratives, UNT Philosophy program has a leading environmental, transdisciplinary program that has as one of its early roots the philosophy of Aldo Leopold and other seminal thinkers. Leopold’s Land Ethic was published about 70 years ago, and Lynn White’s seminal article The Roots of our Ecological Crisis was published circa 50 years ago. Second, we will discuss approaches of biocultural conservation, including Earth Stewardship to address the challenges posed by global socio-environmental change. Earth Stewardship implies a paradigm shift in ecological sciences: it calls ecologists to engage not only in the production of knowledge, but also in public discourse, decision making, education, and governance. As a means of engaging science and society in rapidly reducing current rates of anthropogenic damage to the biosphere, the Ecological Society of America (ESA) launched the Earth Stewardship Initiative in 2009. Since then, this call for action has been appealing not only to ecologists, but also to philosophers, anthropologists, sociologists, engineers, economists, religion scholars, conservation biologists, other professionals, decision makers, and citizens interested in environmental, economic, and social sustainability. Earth Stewardship also resonates with local communities that defend their lands and cultural traditions.

This course will introduce students to multiple approaches of biocultural conservation. In addition, it will invite students to address a particular challenge, which is to more systematically integrate ethics into biocultural conservation at Long-Term (Socio-) Ecological Research (LTER and LTSER) programs, such as the US LTER and the Chilean LTSER. To confront global environmental change it is necessary, but not sufficient, to conduct long-term socio-ecological research. It is also necessary to act. Toward this goal, we will learn and practice the Field Environmental Philosophy methodological approach. This approach is
being adopted by sites of the *International Long-Term Ecological Research* (ILTER) network, and of the *UNESCO network of biosphere reserves* to integrate ecological sciences and environmental ethics into biocultural education and conservation practices, including ecotourism among them. Indeed, this course prepares students to be part of the broader ILTER network, and offers them an opportunity to further this line of research through a study-abroad field course, entitled Tracing Darwin’s Path (TDP), at the UNT Cape Horn Field Station in Chile. The Intro to Biocultural Conservation course is a highly recommended preparation for the TDP field course that takes place every winter-break in Chile. However, the Intro to Biocultural Conservation course does not require participation in the TDP study abroad course, and vice-versa.

We all bring different skills and mindsets to this course and will work as a group to broaden and integrate our approaches to biocultural conservation. To foster both individual and team study, an essential component of the course will include interdisciplinary integrations on biocultural ethics and Earth Stewardship, and on ethno-ornithology and ecotourism as a way to implement biocultural conservation. Biocultural conservation requires examining and imagining planetary scales that encompass a range of ecological worldviews, practices, and institutions. Today, inter-hemispheric, intercultural, and transdisciplinary collaborations for effective biocultural conservation are an imperative. In particular, the biocultural ethic emphasizes that we are co-inhabitants in the natural world; no matter how complex our inventions may become. The course aims to help us to consider what we could learn from one another and work collaboratively together toward sustainability and biocultural conservation.

**Course Goals:**

Through readings, films, and seminars students will develop:

- Familiarity with both biological and cultural diversity.
- A basic understanding of the geography, history, culture, and ecology of the sub-Antarctic ecoregion of southern South America.
- An understanding of similarities and differences between Sub-Antarctic and Sub-Arctic ecosystems, and worldviews from indigenous people and members of other socio-cultural groups that inhabit these regions.
- A comprehension of under-appreciated biodiversity (bryophytes, lichens, and freshwater invertebrates), and traditional ecological knowledge.
- A distinctive interdisciplinary approach to biocultural conservation that integrates environmental philosophy and ecological sciences.
- We will focus on environmental narratives both historical and contemporary, from the northern- and the southern hemispheres.
- Comparative environmental philosophy, diversity of cultural worldviews and imaginative syntheses about the knowledge and values embedded in them.
- Integration of sciences and humanities into biocultural education and conservation.
Course Evaluation:

1) **Quizzes (35%).** At the beginning of each class, a short quiz will be taken regarding the material contained in the required readings (all students) and supplementary (only graduate) readings for that week.

2) **Tests (30%).** Two tests will be taken during the semester worth 15% of the grade the first and 15% the final. Graduate students will be given an additional question on each exam.

3) **Remote, in class Group-Presentations and Research Papers (35%)**
   
   For **graduate students**, 20% of the grade will be based on their written papers, and 15% on their group ppt. in class presentations. Graduate students should read the book *From Biocultural Homogenization to Biocultural Conservation* in detail. Parts I and II outline the problem, and Part III presents solutions with different conservation approaches. This book will serve as the basis for preparing the introduction and discussion of the general theme of the paper. Each student should also select a specific theme associated with the topics covered in one or more of the course sessions. A suggested list of supplementary articles and books will be provided for each of the research topics that students can select. The paper should be between 10 and 15 double-spaced pages long (Times New Romans 12), and it must include an introduction, where the objective (and/or question) of the essay is stated. The essays are individual. For the presentation, however, students should associate themselves in groups of 3 members and combine their complementary ideas into a single power-point presentation of 15 minutes in total (5 minutes each student).

   For **undergraduate students** same as graduate students, but:
   
   (i) The requirement of the book reading of *From Biocultural Homogenization to Biocultural Conservation* is not mandatory, but recommended.
   
   (ii) A suggested list of supplementary articles and books will be provided for each of the research topics that students can select.
   
   (iii) Papers should be between 5 and 8 double-spaced pages long (Times New Romans 12).
   
   (iv) For the presentations, students should associate themselves in groups of 5 members to combine their complementary ideas into a single power-point presentation of 15 minutes in total (3 minutes each student).

   **The final grade** earned will correspond to the following scores, weighted by each activity:

   - **A** = 90 – 100
   - **B** = 80 – 89
   - **C** = 70 – 79
   - **D** = 60 – 69
   - **F** = 0-59
### Tentative Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings / Assignments</th>
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| **Session 1**
27 August   | Syllabus review
Introduction to the Bio-Cultural Conservation
Course & Field Environmental Philosophy (FEP)
Film: The Return to the Den
Lecturer: R. Rozzi | Quiz 1: Take home (available on Blackboard)
**Reading(s):**
| **Session 2**
3 September | Biocultural ethics’ "3Hs" exercise
Taxonomic chauvinism
Lecturer: R. Rozzi | Take home Exercise
**Quiz 2 Reading(s):**
https://science.sciencemag.org/content/297/5579/191.2.full.pdf
http://dx.doi.org/10.1111/j.1365-294X.2008.04411.x
https://www.pnas.org/content/109/15/5928.full.pdf
https://brill.com/view/journals/jsoa/27/7/article-p653_1.xml?body=pdf-33151
https://www.pci-society.org/environethics/content/enviroethics-2019_0041_00329_00282
https://science.sciencemag.org/content/297/5588/1807-1808.full.pdf |
| **Session 3**
10 September | Syllabus review
Insects sentiency, ecology & extinction
Lecturer: R. Rozzi | Quiz 3 Reading(s):
https://www.pnas.org/content/113/18/49007.e1.PAGE_ID=527999361
https://www.nature.com/articles/s41467-018-07916-1
Wilson, E.O., 1987. The little things that run the world (the importance and conservation of invertebrates).
https://www.nyst redistribution/123860207e-v1/metadatasf. tab. content
*** Graduates Also Read ***
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2515136

**Session 4**
17 November | Insect ecology, conservation, and education
Film: Convivencia
Lecturer: J. Kennedy | Quiz 4 Reading(s):
https://link.springer.com/article/10.1007/s10531-012-0299-x
https://www.jstor.org/stable/2386020?seq=1#metadata_info_tab_contents
*** Graduates Also Read ***
https://link.springer.com/article/10.1007/s10531-012-0299-x
http://dx.doi.org/10.1111/j.1365-294X.2008.04411.x
http://www.ecologyandsociety.org/vol11/iss1/art43/ | Explanation and posting in CANVAS of Graduate Midterm I (due Oct. 8th)
Session 5
24 September
Conservation approaches in North America by Aldo Leopold and in South America by Omora Park team
Lecturer: R. Rozzi

Quiz 5 Reading(s):


*** Graduates Also Read ***

Session 6
1 October
Anthropocene: Global Change & Biocultural Homogenization
Lecturer: R. Rozzi and graduate students

Quiz 6 Reading(s):


*** Graduates Also Read ***


Session 7
8 October
Ecofeminism: Narratives beyond human-centeredness
Lecturer: Terra Rowe & R. Rozzi

Midterm – take home (turn in)

Quiz 7 Reading(s):


*** Graduates Also Read ***

Turn in Graduate Take Home

Session 8
15 October
Earth Stewardship
Guest Lecturer: Roy May & R. Rozzi

Quiz 8 Reading(s):


*** Graduates Also Read ***


*** Graduates Also Read ***

Session 9
22 October
Sub-Antarctic Bryology in “The Miniature Forests of Cape Horn”
Lecturer: Bernard Goffinet

Quiz 9 Reading(s):


*** Graduates Also Read ***

**Session 10**  
**29 October**  
**Ecotourism with a hand lens and flagship species in conservation**  
**Film:** “The Invisible Journey”  
**Lecturer:** R. Rozzi

**Quiz 10 Reading(s):**  

*** Graduates Also Read ***  

**Session 11**  
**5 November**  
**Biocultural Conservation**  
**Lecturer:** R. Rozzi

**Students turn in drafts of individual papers and group ppt**

**Quiz 11 Reading(s):**  

*** Graduates Also Read ***  

**Session 12**  
**12 November**  
**Research presentations**  
**Lecturer:** R. Rozzi

**Students group presentations**

**Session 13**  
**19 November**  
**Lecturer:** R. Rozzi

**Students group presentations**

**Session 14**  
**3 December**  
**Narratives linking ecological-evolutionary sciences and environmental ethics**  
**Film:** Homage to the Yahgans: the last Indians of Tierra del Fuego and Cape Horn  
**Lecturer:** R. Rozzi

**Quiz 12 Reading(s):**  

**Graduates Also Read ***  

**Session 15**  
**10 December**  
**Final Exam**  
**Lecturer:** R. Rozzi

**In class exam**

**FILMS REFERENCES**

**Homage to the Yahgans: the last Indians of Tierra del Fuego and Cape Horn** by Anne Chapman and CNRS-Audiovisuel, Watertown, MA. http://iii.library.unt.edu/record=b3925218~S6


BOOKS


SOME SUPPLEMENTARY REFERENCES


Studies in Avian Biology


Mazzarello, P.


