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

INTRODUCTION TO SUB-ANTARCTIC BIOCULTURAL CONSERVATION
Fall 2016

Core Professors:
Dr. Jaime E. Jiménez, wildlife ecologist, UNT
Dr. Ricardo Rozzi, conservation biologist & philosopher, UNT
https://faculty.unt.edu/editprofile.php?onlyview=1&pid=2117 (Dep. Philosophy)

Collaborating & Invited Lecturers:
Dr. Bernard Goffinet, bryologist, University of Connecticut http://www.eeb.uconn.edu/people/goffinet/
Dr. Julie C. Hagelin, ornithologist, Institute of Arctic Biology, University of Alaska Fairbanks
Dr. James H. Kennedy, biologist, UNT https://faculty.unt.edu/editprofile.php?pid=1930&onlyview=1
Dr. Roy May, environmental theologian and philosopher, Ecumenical Department of Investigations (DEI), San Jose, Costa Rica
Dr. Derek Sikes, entomologist, University of Alaska, http://users.iab.uaf.edu/~derek_sikes/people.htm
Dr. Philip Loring, human ecologist, University of Saskatchewan

Course Catalogue Information (sections 001 & 031):
BIOL 4053, 5053; PHIL 4053, 6780

Class Schedule:
Fall semester; Thursdays, 6:00-8:50 pm (Central Daylight/Standard Time), Chilton Hall, Room 245

Office Hours:
J. Jiménez: Wed 3:00-4:30 pm (EESAT 310AB) or by appointment (Phone: 940-369-8211; email: Jaime.Jimenez@unt.edu)
R. Rozzi: Thu 3:00-4:30 pm (EESAT 310P) or by appointment

Readings:

Required purchased texts are:
• Additional readings will be made available in PDF from the course Blackboard platform and are subject to change up to one week in advance if necessary.
See the following URL for additional information and readings about UNT library resources specific to this course: http://guides.library.unt.edu/c.php?g=343324&p=2384024

Recommended purchased text:
Rozzi, R., & J.E. Jiménez. 2014 (eds.). *Magellanic Subantarctic Ornithology: First Decade of Forest Bird Studies at the Omora Ethnobotanical Park, Cape Horn Biosphere Reserve.* UNT Press - Ediciones Universidad de Magallanes, Denton TX, USA - Punta Arenas, Chile.

**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. Students will gain an overview of the flora, fauna, geography, climate, and ethnography of southern South America. They will also gain a conceptual framework to integrate environmental philosophy and ecological sciences, and their integration into practical and theoretical aspects of biocultural conservation, including education and ecotourism. Additionally, and as a way of comparing and contrasting with the Sub-Antarctic contents, the course will have a section on Sub-Arctic contents. As a leitmotiv for the course, at the beginning of the classes in Unit I and some of Units II we will start by analyzing a Native American Mapuche or Yahgan bird story.

To confront global environmental change it is necessary, but not sufficient, to conduct long-term socio-ecological research. It is also necessary to act. We will discuss the approaches of biocultural ethics and Earth stewardship to address these challenges. 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 anthropologists, sociologists, engineers, economists, religion scholars, philosophers, conservation biologists, other professionals, decision makers, and citizens interested in environmental, economic, and social sustainability. Biocultural ethics advances the Stewardship Initiative toward a planetary scale, presenting a range of ecological worldviews, practices, and institutions in different parts of the world and to use them as the basis for considering what we could learn from one another, and what we could do together. Today, inter-hemispheric, intercultural, and transdisciplinary collaborations for Earth Stewardship are an imperative. Biocultural ethic emphasizes that we are co-inhabitants in the natural world; no matter how complex our inventions may become (Raven 2014).

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. This semester-long seminar-style course will have an emphasis on ethno-ornithology and ecotourism, as a way to implement biocultural conservation. The course is part of a broader International Research Experience, and a study-abroad field course, entitled Tracing Darwin’s Path (TDP). Although this course is a recommended pre-requisite for the TDP field course, participation in the field components associated with the semester-long seminar course is not a requirement.

We will use various interactive features during the course, including Blackboard, videoconferences and live streaming. Course materials will be made available online through Blackboard and
www.chile.unt.edu. Students are required to check Blackboard regularly for updates to the syllabus, announcements and access to course materials.

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 southwestern South America, and other subpolar regions, particularly the sub-Arctic region of North 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 better understanding and valuation of under-appreciated biodiversity (bryophytes, lichens, and freshwater invertebrates), and traditional ecological knowledge (TEK).
- A distinctive interdisciplinary approach to biocultural conservation that integrates environmental philosophy and ecological sciences.
- Familiarity with examples of Neotropical ornithology, biotic and biocultural homogenization, flagship species, Earth Stewardship, Latin American environmental philosophy, and TEK.

Course Evaluation:

1) Individual and Group Presentations (15%)
Students groups of 4-5 will give 15 minute presentations on Nov. 17th based on a research topic chosen at the beginning of the semester (see Appendix with list of Research Topics Fall 2016). Each group is required to submit, by email, a professional PPT presentation on Oct. 20th, which will be returned with comments prior to the presentation. Groups are expected to incorporate and/or address the comments, questions, and indications given as feedback into the first draft PPT to be presented on Nov. 17th.

2) Final Essay (20%)
Groups of 4-5 students will select a topic of relevance to sub-Antarctic/sub-Arctic biocultural conservation and elaborate a “review-type” article (on the same topic as their presentations), using an extensive bibliographic search. The essay will be max 6 pages, formatted as double space, font size 12, Times New Roman, and 1-inch margins (not including bibliography – 1 to 3 additional pages).

To receive credit, essays must include: 1) a brief introduction; 2) main questions or thesis researched in the presentation; 3) results and thesis proposed; and 4) broader implications of the findings and statements.

On Oct 20th students will turn in the first draft of their essays. The essays will be distributed to the class as supplementary reading materials. On Nov. 3rd groups will receive feedback from their classmates and professors of the course about their drafts. Addressing the questions and suggestions provided on the drafts, each group will prepare a final paper, max 10 pages, double spaced, font size 12, Times New Roman, 1-inch margins (not including bibliography – 1 to 3 additional pages) for Nov 17th; no exceptions will be made for this deadline.
3) Attendance and Participation (10%)
Attendance is mandatory. Students are responsible to prepare ahead of time, attend all lectures and discussion sessions, ask questions, and express themselves creatively and concisely in their work. Ways of earning points for class participation include being prepared to contribute positively to class discussion of the assigned readings. Contributing positively requires having read, and as thoroughly as possible understood the assigned readings, and at least being able to raise important questions if not provide definitive answers. Undergraduate students are responsible for all required readings, and graduate students are responsible for required and supplementary readings. Authorized absences that will be considered on a case-by-case basis include: religious holidays, call to active military duty and a certified sickness by a medical professional. Unauthorized absences will affect participation grade.

4) Preparation Quizzes (25%)
At the beginning of each class, a short quiz will be taken regarding the material contained in the required (all students) and supplementary (only graduate) readings for that week.

5) Tests (30%)
Three tests will be taken during the semester worth each 10% of the grade. Graduate students will be given an additional question on each exam.

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

A = 89.5 – 100
B = 79.5 – 89.4
C = 69.5 – 79.4
D = 59.5 – 69.4
F = 59.4 and below

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 during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours 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 12th. Other Drop/Withdrawal Information and other important Academic Dates can be found at [http://registrar.unt.edu/registration/fall-add-drop](http://registrar.unt.edu/registration/fall-add-drop). Before dropping the course, please come and discuss this with us.

**Course 2016 Tentative schedule**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings / Assignments</th>
<th>Lecturer</th>
</tr>
</thead>
</table>
*Film: Homage to the Yahgans*  

**Unit I: Environmental Philosophy, Ecotourism & Biocultural Diversity**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings / Assignments</th>
<th>Lecturer</th>
</tr>
</thead>
</table>
Rozzi et al. 2008a, 2010 & Rozzi 2013  
**Presentations by Students:**  
(i) Aguirre. 2015: *Hermeneutic and Field Environmental Philosophy*  
(ii) Rozzi, Ricardo. 1999. The reciprocal links between evolutionary-ecological sciences and environmental ethics  
*Supplementary:* Poole et al. 2013. A call for ethics literacy in environmental education.  
Goffinet et al. 2012 :  
(a) Preface (Serendipity)  
(b) Chapters 1, 2 & 3  
Lewis et al. 2014  
Rozzi et al. 2008b | B. Goffinet |
Rozzi 2013, 2015a,b (Biocultural Ethics)

**Presentations by Students:**
(i) Hobbs et al. 2014. Managing the whole landscape: historical, hybrid, and novel ecosystems.
(ii) Steffen et al. 2011. The Anthropocene: From global change to planetary stewardship

Supplementary:
Dorje 2011
Chapin et al. 2011, Rozzi et al. 2015 (Earth Stewardship)
Film: The *Return to the Den*

(a) pp. 115-120: Buff-Necked Ibis (*Lejuwa*), Yahgan story
(b) pp. 9-11, Callicott (2010) Foreword
(c) pp. 15-40: Ethno-ornithological Philosophy & Environmental Ethics

*Rozzi et al.* 2014a. From science towards conservation: the education and environmental ethics program of the Omora Ethnobotanical Park...

**Presentations by Students:**
(ii) Gare, A. “MacIntyre, Narratives, and Environmental Ethics”.

Supplementary:
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Material</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>May 2014 (Dorothy Stang)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palmer, C. 2013. Contested Frameworks in Environmental Ethics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplementary: <em>Film: They killed Sister Dorothy</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Da Rocha &amp; Valenti 2014 (Chico Mendes)</td>
<td></td>
</tr>
<tr>
<td><strong>Unit II: Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Armesto et al. 1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jiménez &amp; Rozzi 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rozzi et al. 2012, 2014</td>
<td></td>
</tr>
<tr>
<td>20 October</td>
<td>Insect Ecology and Conservation Education</td>
<td>Students turn in a draft of their essays and PPT presentations</td>
<td>J. Kennedy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moorman et al. 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplementary: Contador et al. 2012</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Film: Convivencia</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biogeography and origin of Sub-Antarctic birds</td>
<td>Vuilleumier 1985</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplementary: Ippi et al. 2009</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elphick et al. 2012</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Film: The Life of Birds by David Attenborough.</em></td>
<td></td>
</tr>
<tr>
<td>@03 Novemb.</td>
<td>Exam Unit II</td>
<td></td>
<td>J. Jiménez</td>
</tr>
<tr>
<td></td>
<td>Introduction to Unit III:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Unit III: Sub-Arctic Biocultural Diversity

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10 Novemb.</strong></td>
<td><strong>Sub-Arctic Ornithology, Landscapes, and Conservation</strong>&lt;br&gt; Hagelin’s perspectives on Conservation and Ornithological studies in the Sub-Arctic&lt;br&gt;A human case-study that spans environments and cultures of the two hemispheres.</td>
<td>J. Hagelin&lt;br&gt;J. Jiménez</td>
</tr>
<tr>
<td><strong>17 Novemb.</strong></td>
<td><strong>Undergraduate and Graduate Group presentations</strong>&lt;br&gt;Woodpeckers &amp; Flagship species seminar by graduate students</td>
<td>Students turn in short essay draft&lt;br&gt;Supplementary: Walpole &amp; Leader-Williams 2002&lt;br&gt;<em>Submission of final essays</em></td>
</tr>
<tr>
<td><strong>01 December</strong></td>
<td><strong>Sub-Arctic Entomology, Landscapes, and Conservation</strong>&lt;br&gt;Insect Ecology and Conservation</td>
<td>Ball 1967&lt;br&gt;Demain et al. 2009&lt;br&gt;Magoun &amp; Dean 2000, pp. 38-41</td>
</tr>
<tr>
<td><strong>08 December</strong></td>
<td><strong>Sub-Arctic Biocultural Diversity</strong> (culture, linguistic, ecological worldviews and traditional ecological knowledge)&lt;br&gt;Ethnography and landscapes</td>
<td>Cruikshank 2001&lt;br&gt;Hunn et al. 2003</td>
</tr>
<tr>
<td><strong>15 December</strong></td>
<td><strong>Final Exam</strong></td>
<td>J. Jiménez</td>
</tr>
</tbody>
</table>

# indicates videoconference between University of Connecticut and UNT
* indicates videoconference between Costa Rica and UNT
® indicates videoconference between University of Alaska and UNT
^ indicates videoconference between University of Saskatchewan and UNT
& videoconference from Chile
READINGS REFERENCES


**FILMS REFERENCES**


*Ecotourism with a hand lens “The Invisible Journey”* by Jaime Sepúlveda, Santiago, Chile.

*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](http://iii.library.unt.edu/record=b3925218~S6)


*The Life of Birds* by David Attenborough. BBC video (3 DVD disks). Chilton Media Library DVD 7763 v.1, DVD 7763 v.2, & DVD 7763 v.3.
