INTRODUCTION TO SUB-ANTARCTIC BIOCULTURAL CONSERVATION
Fall 2017

Core Professors:
Dr. Jaime E. Jiménez, wildlife ecologist, UNT (Dept. Biology & Dept. Philosophy, Sub-Antarctic Biocultural Conservation Program) https://biology.unt.edu/people/jaime-jimenez
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. Tamara Contador, freshwater ecologist & conservation biologist, University of Magallanes (Omora Ethnobotanical Park, Sub-Antarctic Biocultural Conservation Program).
Dr. Bernard Goffinet, bryologist, University of Connecticut http://bryology.uconn.edu/bernard-goffinet/
Dr. Derek Sikes, entomologist, University of Alaska, https://www.uaf.edu/museum/collections/ento/staff/
Dr. Julie C. Hagelin, ornithologist, Institute of Arctic Biology, University of Alaska Fairbanks https://www.iab.uaf.edu/events/lsss.php?event_id=1076
Dr. James H. Kennedy, freshwater ecologist, UNT (Dept. Biology, Sub-Antarctic Biocultural Conservation Program) https://biology.unt.edu/people/james-kennedy
Dr. Philip Loring, human ecologist, University of Saskatchewan http://www.usask.ca/sens/our-people/faculty-profile/Core/Philip_Loring.php
Dr. Roy May, environmental theologian and philosopher, Ecumenical Research Department, Costa Rica

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

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 310V) or by appointment (Phone: 940-369-8211; email: JaimeJimenez@unt.edu)
R. Rozzi: Thu 3:00-4:30 pm (EESAT 310P) or by appointment (email: rrozzi@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 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 11th 2017. 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. 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 subpolar and other ecoregions, with a focus on southwestern South America. We will also gain a conceptual framework to integrate environmental philosophy and ecological sciences, and their incorporation into practical and theoretical aspects of biocultural conservation, including education and ecotourism. Additionally, as a way of comparing sub-polar regions from South and North America, the course will include both, a subsection on Sub-Antarctic and another subsection on Sub-Arctic ecoregions. As a leitmotiv for the course, at the beginning of the classes in Unit I and some in Unit II we will start by analyzing a Native American Mapuche or Yahgan bird story from southwestern South America.

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 conservation and 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 the Earth Stewardship initiative in a broad sense. In addition, it will invite students to address a particular challenge, which is to more systematically integrate ethics into Earth Steward and Long-Term Ecological Research programs. 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 is part of the broader ILTER network, and offers an opportunity to further this line of research through a study-abroad field course, entitled Tracing Darwin’s Path (TDP), in the UNT Cape Horn Field Station in Chile. Although the Intro to Biocultural Conservation course is a recommended pre-requisite for the TDP field course that takes place every winter-break in Chile, the Intro to Biocultural Conservation course does not require participation in the TDP study abroad course.

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. As a way to foster both individual and team study, an essential component of the course will include the practice of writing a scholarly book review. This book review and this semester-long seminar-style course will have an emphasis on biocultural ethics and Earth Stewardship, and on ethno-ornithology and ecotourism as a way to implement biocultural conservation. The biocultural ethic advances the Earth Stewardship Initiative toward a planetary scale that encompasses a range of ecological worldviews, practices, and institutions. Today, inter-hemispheric, intercultural, and transdisciplinary collaborations for Earth Stewardship are an imperative. The biocultural ethic emphasizes that we are co-inhabitants in the natural world; no matter how complex our inventions may become. The group review exercise aims to help considering what we could learn from one another, and working toward solutions together.

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 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.
• Familiarity with examples of Neotropical ornithology, biotic homogenization, and flagship species.
• We will focus on some key figures of biocultural diversity, Earth Stewardship, South American environmental philosophy, comparative environmental philosophy, environmental philosophy and education, narrative philosophy and ethics.

Readings & Required Texts
• Additional readings will be made available in PDF from the course library web site http://guides.library.unt.edu/biol4053 or from the Blackboard platform and are subject to change up to one week in advance if necessary.

Course Evaluation:

1) Attendance and Participation (5%)
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.

2) Preparation Quizzes (30%)
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.

3) Tests (35%)
Two tests will be taken during the semester worth 15% of the grade the first and 20% the final. Graduate students will be given an additional question on each exam.

4) Book Review (30%)
The book reviews will be organized in two thematic areas:
1. Earth Stewardship and comparative environmental philosophy.
2. Ethno-ornithology, and conservation and valuation of birds, their habitats, and cultures.
Each thematic area involves two books, (a) one produced by researchers of the Sub-Antarctic Biocultural Conservation Program, and (b) another book produced by outside authors.

Thematic area “1” includes the books (a) Earth Stewardship: Linking Ecology and Ethics in Theory and Practice, and (b) Earth’s Insights. Thematic area “2” includes the books (a) Multi-Ethnic Bird Guide of the Sub-Antarctic Forests of South America, and (b) Ethno-ornithology, birds, indigenous people, culture, and society.

Graduate student instructions
Step 1: Select a thematic area.
Step 2: Find a partner.
Step 3: Each student is required to select and review one of the books from their thematic area. Both students are required to read both books in the thematic area. The individual reviews must include a
a) description of the book;
b) identification of 5 core concepts that are relevant to biocultural conservation;
c) a critical evaluation of the strengths and weaknesses of these points, and the book in general;
d) a general assessment of the book;
e) discussion of further research that is needed to advance Earth Stewardship.
This individual book review should have a length of 2500-3500 words. The essay can include a few bibliographic references to contrast the reviewed book with other related publications. Bibliographic references are not considered in the word count.
Step 4: Both students together write a single, co-authored comparative essay of the two books, with an emphasis on a critical analysis of the actual and potential contributions of the core concepts within each book to biocultural conservation. All essays are due on November 2nd.
This co-authored, comparative book review should have a length of 2000-2500 words. The essay can include a few bibliographic references to contrast the reviewed book with other related publications. Bibliographic references are not considered in the word count.
Step 5: Both students prepare a concise 10 minute PPT in class presentation of their essay on November 2nd.

Table. Summary of assignments for graduate students.

| Thematic Area | Book | Individual Book Review | Co-authored Comparative review of books "a" and "b"
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<tr>
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<tbody>
<tr>
<td>Earth Stewardship and Comparative Environmental Philosophy</td>
<td>(a) Earth Stewardship</td>
<td>Grad student 1</td>
<td>Grad students 1 &amp; 2</td>
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<td></td>
<td>(b) Earth’s Insights</td>
<td>Grad student 2</td>
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<tr>
<td>Ethno-ornithology and bird conservation</td>
<td>(a) Multi-Ethnic Bird Guide</td>
<td>Grad student 3</td>
<td>Grad students 3 &amp; 4</td>
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<td></td>
<td>(b) Ethno-ornithology</td>
<td>Grad student 4</td>
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<tr>
<td>Earth Stewardship and Comparative Environmental Philosophy</td>
<td>(a) Earth Stewardship</td>
<td>Grad student 5</td>
<td>Grad students 5 &amp; 6</td>
</tr>
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<td></td>
<td>(b) Earth’s Insights</td>
<td>Grad student 6</td>
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<tr>
<td>Ethno-ornithology and bird conservation</td>
<td>(a) Multi-Ethnic Bird Guide</td>
<td>Grad student 7</td>
<td>Grad students 7 &amp; 8</td>
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<tr>
<td></td>
<td>(b) Ethno-ornithology</td>
<td>Grad student 8</td>
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Undergraduate student instructions

Undergraduate students follow the same steps as graduate students with only two variations: (i) individual book reviews are done by 2 students, therefore comparative co-authored book reviews are by 4 students; (ii) undergraduate students prepare an “ignite 5 minutes” in class presentation on their comparative book review.

Deadline for written essays is October 26, and for PPT presentation is November 2; no exceptions.

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

Course 2017 Program

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings / Assignments</th>
<th>Lecturer</th>
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<tbody>
<tr>
<td></td>
<td>Introduction to the Bio-Cultural Conservation</td>
<td>Film: <em>Homage to the Yahgans</em></td>
<td>R. Rozzi</td>
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<td></td>
<td>Course</td>
<td>Supplementary: Rozzi et al. 2006 <a href="http://www.ecologyandsociety.org/vol11/iss1/art43/">http://www.ecologyandsociety.org/vol11/iss1/art43/</a></td>
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<td>07 September</td>
<td>Insect ecology and conservation education</td>
<td>Bird Ringed Kingfisher (<em>Chalwafe</em>), Mapuche story (trophic network and terrestrial-freshwater link)</td>
<td>J. Kennedy</td>
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<td></td>
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<td>Moorman et al. 2006</td>
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<td>Rozzi et al. 2010b pp. 1-5</td>
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<td>Film: <em>Convivencia</em></td>
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<td>Supplementary: Contador et al. 2012</td>
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<td>through Field Environmental Philosophy</td>
<td>Contador et al. 2012, 2015</td>
<td>R. Rozzi</td>
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<td>Rozzi et al. 2010b</td>
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### Intrinsic & Instrumental values of biodiversity

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<tr>
<td>Gare 1998</td>
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<td>Mazzarello 1999</td>
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<tr>
<td>Rozzi 2012, Preface (Serendipity) in Goffinet et al. 2012</td>
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<td>Rozzi et al. 2010a, pp. 1-41</td>
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<tr>
<td>Rozzi et al. 2010b</td>
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<td>Rozzi 2014</td>
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<tr>
<td>Film: <em>Ecotourism with a Hand-Lens “The Invisible Journey”</em></td>
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<tr>
<td>Supplementary:</td>
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<tr>
<td>Aguirre 2015: <em>Hermeneutic and Field Environmental Philosophy</em></td>
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<tr>
<td>Rozzi 2015a,b (Biocultural Ethics)</td>
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<td>Walpole &amp; Leader-Williams 2002</td>
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### Biocultural Ethics & Earth Stewardship

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<tr>
<td><em>From Biocultural Homogenization to Biocultural Conservation</em></td>
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<td>Janzen 1988</td>
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<tr>
<td>Rozzi 2013</td>
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<td>Simberloff 2018</td>
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<tr>
<td>Film: <em>The Return to the Den</em></td>
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<tr>
<td>Supplementary:</td>
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<tr>
<td>Rozzi et al. 2010b, Steffen et al. 2011</td>
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#### Sep. 28-Oct 4: Watch Film *They killed Sister Dorothy; available online at the UNT Media Library*

#### 5 October

**Biocultural Conservation, and Liberation thought**

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<th>Source</th>
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<tr>
<td>Palmer 2013: Concepts of environmental ethics</td>
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<td>May 2015, 2018: Defenders of people and the land [“defenders of habits and co-inhabitants”], Dorothy Stang &amp; Berta Cáceres</td>
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<tr>
<td>Supplementary:</td>
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<tr>
<td>Chico Mendez Extractives Reserve in Amazonia (da Rocha &amp; Valenti 2015)</td>
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<td>Candomblé in Brazil: the contribution of African-origin religions to biocultural diversity in the Americas (Paulo José dos Reyes &amp; Silvia Regina da Lima Silva 2018)</td>
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#### 12 October

**Exam I**

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<td>First part of class: Midterm</td>
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### Unit II: Subpolar Biocultural Diversity

#### a. Magellanic Sub-Antarctic Ecoregion & Biocultural Diversity

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<tr>
<td>12 October, Second part of class: <em>Introduction to Unit II: Sub-Antarctic Biocultural Diversity</em></td>
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#### 19 October

**The Magellanic Sub-Antarctic Ecoregion landscapes**

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<tr>
<td>Armesto et al. 1998</td>
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<td>Rozzi &amp; Jiménez 2014 pp. 2-39</td>
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<tr>
<td>J. Jiménez</td>
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story (the birds as teachers for the Yahgans; the birds as co-inhabitants for the Mapuche)
Rozzi et al. 2010a. Introduction to the temperate forests. 
Supplementary: 
Rozzi et al. 2012

<table>
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<tr>
<th>#26 October</th>
<th>Sub-Antarctic Bryology in “The Miniature Forests of Cape Horn:” connections with sub-Arctic bryoflora through migratory birds</th>
<th>Goffinet et al. 2012 Chapters 2 &amp; 3</th>
<th>B. Goffinet R. Rozzi</th>
</tr>
</thead>
</table>
|             | Supplementary: 
Rozzi et al. 2008a,b | Lewis et al. 2014 | |
| 2 November  | Seminars | Graduate and undergraduate students’ presentations and overview analysis of book reviews on: 
(1) Earth Stewardship & Comparative Environmental Philosophy 
(2) Ethno-ornithology and Biocultural Conservation | R. Rozzi J. Jiménez |
|             | | Supplementary: 
Chapin et al. 2011 | |
| 9 November  | Magellanic Sub-Antarctic Avifauna Biogeography and origin of Sub-Antarctic birds | Rozzi et al. 2010a. Multi-Ethnic Bird Guide. Pp. 49-51:  
Magellanic Woodpecker (Lana), Yahgan story (human and bird behavior in Yahgan language)  
Vuilleumier 1985  
Film: *The Life of Birds* by David Attenborough. | J. Jiménez |
|             | | Supplementary: 

**Unit II: Subpolar Biocultural Diversity**

**b. Sub-Arctic Biological and Cultural Diversity**

| @16 November | Sub-Arctic Ornithology, Landscapes, and Conservation  
• Hagelin’s perspectives on Conservation and Ornithological studies in the Sub-Arctic.  
A human case-study that spans environments and | Kessel & Gibson 1976  
Rich et al. 2004  
Yesner 2004 | J. Hagelin J. Jiménez |
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</table>
| @23 November | Sub-Arctic Biocultural Diversity (culture, linguistic, ecological worldviews, and traditional ecological knowledge) | Cruikshank 2001  
Hunn et al. 2003  
P. Loring  
J. Jiménez |
| @7 December | Sub-Arctic Entomology, Landscapes, and Conservation  
Insect Ecology and Conservation | Ball 1967  
Demain et al. 2009  
Magoun & Dean 2000 pp. 38-41  
D. Sikes  
J. Jiménez |
| 14 December | Final Exam                                                                 | J. Jiménez                                                                 |

* indicates videoconference between University of Alaska/University of Saskatchewan, and UNT  
# indicates videoconference between University of Connecticut, and UNT

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**READINGS REFERENCES**

[http://guides.library.unt.edu/biol4053](http://guides.library.unt.edu/biol4053)


approaches to broaden the ways of integrating the social component (“S”) in Long-Term Socio-Ecological Research (LTSER) sites. *Revista Chilena de Historia Natural* 83: 1-5, 25-27. [supplementary materials].


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


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


*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.
BOOKS TO REVIEW


