



**Sub-Antarctic Biocultural Conservation Program**  
**University of North Texas, Universidad de Magallanes & Institute of Ecology and Biodiversity**  
[www.chile.unt.edu](http://www.chile.unt.edu) & [www.ieb-chile.cl/ltser](http://www.ieb-chile.cl/ltser)

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**INTRODUCTION TO SUBANTARCTIC BIOCULTURAL CONSERVATION**  
*Fall 2012*

**Core Professor:**

Dr. Jaime E. Jiménez, *wildlife ecologist*, UNT <https://faculty.unt.edu/editprofile.php?pid=3709&onlyview=1>  
 (Dep. Biology & Dep. Philosophy)

**Coordinator at Univ. Alaska Fairbanks & Invited Lecturer:**

Dr. Philip Loring, *human ecologist*, University of Alaska Fairbanks, <http://ine.uaf.edu/people/phil-loring/>

**Collaborating & Invited Lecturers:**

Dr. J. Baird Callicott, *philosopher*, UNT <http://www.phil.unt.edu/people/faculty/j-baird-callicott>

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  
[http://mercury2.iab.uaf.edu/iab/facstaff/people\\_info.php?people\\_id=1026](http://mercury2.iab.uaf.edu/iab/facstaff/people_info.php?people_id=1026)

Dr. James H. Kennedy, *biologist*, UNT <https://faculty.unt.edu/editprofile.php?pid=1930&onlyview=1>

Dr. Roy May, *environmental theologian and philosopher*, Latin American Bible University of Costa Rica

M.A. Jennifer Roglà, *cultural anthropologist*, UNT-International, <https://faculty.unt.edu/editprofile.php?onlyview=1&pid=3173>

Dr. Ricardo Rozzi, *conservation philosopher*, UNT <https://faculty.unt.edu/editprofile.php?onlyview=1&pid=2117>

Dr. Derek Sikes, *entomologist*, University of Alaska, [http://users.iab.uaf.edu/~derek\\_sikes/people.htm](http://users.iab.uaf.edu/~derek_sikes/people.htm)

**Course Catalogue Information (sections 001 & 031):**

PHIL 4053, 6780

BIOL 4053, 5053

**Class Schedule:**

Fall semester; Wednesdays, 6:00-8:50 pm (Central Daylight/Standard Time)

Chilton Hall, Room 245

**Office Hours:**

J. Jiménez: Tue & Thu 3:00-4:30 pm (EESAT 310B) or by appointment

(Phone: 940-369-5346; email: [Jaime.Jimenez@unt.edu](mailto:Jaime.Jimenez@unt.edu))

**Academic Dishonesty Policy:**

Students are responsible for reading, understanding, and knowing UNT's Academic Dishonesty Policy that can be found at: [http://www.vpaa.unt.edu/academic\\_integrity.htm](http://www.vpaa.unt.edu/academic_integrity.htm). Academic dishonesty in this class is unacceptable and will not be tolerated in any form.

**Disability Accommodation:**

The Departments of Biological Sciences and Philosophy and Religion Studies, in cooperation with the Office of Disability Accommodation, comply with the Americans with disabilities in making reasonable accommodations for qualified students with disabilities. The University of North Texas is on record as

being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 – The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act (ADA), pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens. Please present your written accommodation request before the 12<sup>th</sup> class day.

**Drop/Withdrawal Information:**

Drop/Withdrawal Information and other important Academic Dates can be found at [www.essc.unt.edu/registrar/schedule/scheduleclass.html](http://www.essc.unt.edu/registrar/schedule/scheduleclass.html)

## **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.

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](http://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 on biocultural diversity (e.g., Darrel Possey, Luisa Maffi), South American environmental philosophy (e.g., Leonardo Boff, Chico Mendez, Dorothy Stang), comparative environmental philosophy (e.g., Baird Callicott), environmental philosophy and education (e.g., Eugene Hargrove, Peter Feinsinger), narrative philosophy and ethics (e.g., Alasdair MacIntyre).

### Readings:

Required purchased texts are:

- Rozzi, R. et al. 2010. *Multi-Ethnic Bird Guide of the Sub-Antarctic Forests of South America*. UNT Press – Ediciones Universidad de Magallanes, Denton TX and Punta Arenas, Chile.
- Goffinet, B. et al. 2012. *Miniature forest of Cape Horn, ecotourism with a hand lens*. The University of North Texas Press, Denton, Texas, and Ediciones Universidad de Magallanes, Punta Arenas, Chile.
- 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.

### Course Evaluation:

#### 1) Group Presentations (15%)

Students groups of 4-5 will give 15 minute presentations on **Dec. 5<sup>th</sup>** based on a research topic chosen at the beginning of the semester (see Appendix with list of Research Topics Fall 2012). Each group is required to submit, by email, a professional PPT presentation on **Oct. 24<sup>th</sup>**, 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 **Dec. 5<sup>th</sup>**. Additionally, on **Dec. 5<sup>th</sup>** graduate students will require presenting a seminar on a flagship species.

#### 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 31<sup>st</sup>** students will turn in the first draft of their essays. The essays will be distributed to the class as supplementary reading materials. On **Nov. 7<sup>th</sup>** groups will receive feedback from their classmates and professor 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 **Dec. 5<sup>th</sup>**; **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

### Course 2011Program

Date	Topic	Readings / Assignments	Lecturer
29 August	Syllabus review  <b>Introduction to the Bio-Cultural Conservation Course</b>	Omora, Yahgan story. <i>Multi-Ethnic Bird Guide</i> . Pp. 167-170.  Film: <i>Homage to the Yahgans</i> by Anne Chapman	J. Jiménez
<b>Unit I: Environmental Philosophy, Ecotourism &amp; Biocultural Diversity</b>			
05 September	<b>Environmental Ethics &amp; Comparative Environmental Philosophy</b>	Callicott's Earth's Insights Introduction (Ch. 1), South American eco-eroticism (Ch. 7) & A Post-Modern Evolutionary-Ecological Environmental Ethics (Ch. 9)	J. Baird Callicott
12 September	<b>Biocultural Conservation &amp; Field Environmental Philosophy</b>	Rozzi et al. 2008a, 2012 Rozzi 2012  Supplementary:	R. Rozzi

		<p>Rozzi et al. 2010 Maffi 2001. On Biocultural Diversity. Pp. 1-50.</p> <p>Film: <i>The Return to the Den</i></p>	
19 September	Insect ecology and conservation education	<p>Moorman et al. 2006 Rozzi et al. 2010. Pp. 1-5</p> <p>Contador et al. 2012</p> <p>Film: <i>Convivencia</i></p>	J. Kennedy
26 September	<p><b>Biocultural Conservation, Environmental Ethics &amp; Liberation Theology</b></p> <p>Roy May on environmental ethics &amp; Dorothy Stang, Chico Mendez and Leonardo Boff</p> <p>Review of Gare's article &amp; Synthesis Unit I</p>	<p>Gare 1998</p> <p>Supplementary: Rozzi et al. 2010, 2012 review of main concepts</p> <p>Film: <i>They killed Sister Dorothy</i></p>	<p>R. May</p> <p>(R. Rozzi)</p>
<b>Unit II: Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</b>			
03 October	<p><b>Exam Unit I</b></p> <p>The Magellanic Sub-Antarctic Ecoregion landscapes</p>	<p>Armesto et al. 1998 Rozzi et al. 2012 Introduction to the temperate forests. <i>Multi-Ethnic Bird Guide</i>. Pp. 15-20.</p> <p>Supplementary: Rozzi et al. 2006 <a href="http://www.ecologyandsociety.org/vol11/iss1/art43/">http://www.ecologyandsociety.org/vol11/iss1/art43/</a></p>	J. Jiménez

10 October	Ecotourism, Education and Bio-Cultural Conservation	Goffinet et al. 2012. Preface (Serendipity...) & Chapter 1 Swarbrooke 1999 Tao & Wall 2009  Supplementary: Maffi 2001. On Biocultural Diversity. Pp. 503-516 (Blount)  Film: <i>Ecotourism with a Hand-Lens "The Invisible Journey"</i>	J. Roglá
17 October	Magellanic Sub-Antarctic Avifauna  Biogeography and origin of Sub-Antarctic birds  Film The Life of Birds	Vuilleumier 1985  Magellanic Woodpecker (Lana), Yahgan story. <i>Multi-Ethnic Bird Guide</i> . Pp. 49-51  Supplementary: Ippi et al. 2009 Elphick et al. 2012  Film: <i>The Life of Birds</i> by David Attenborough.	J. Jiménez
#24 October	Sub-Antarctic Bryology in "The Miniature Forests of Cape Horn:" Science, education and conservation	Goffinet et al. 2012. Chapters 2 & 3 Rozzi et al. 2008b  <b>GS+UG turn in PPT presentation</b>	B. Goffinet
@31 October	<b>Exam Unit II</b>  <b>Introduction to Unit III: Sub-Arctic Biocultural Diversity</b>	  <b>Students turn in short essay draft</b>	J. Jiménez J. Hagelin
<b>Unit III: Sub-Arctic Biocultural Diversity</b>			
@7 November	<b>Sub-Arctic Ornithology, Landscapes, and Conservation</b>  <ul style="list-style-type: none"> <li>• Hagelin's perspectives on Conservation and Ornithological studies in the Sub-Arctic</li> <li>• A human case-study that spans environments and cultures of the two hemispheres.</li> </ul>	Rich et al. 2004 Kessel & Gibson 1976 Yesner 2004	J. Hagelin J. Jiménez
@14November	<b>Sub-Arctic Entomology, Landscapes, and Conservation</b>	Ball 1967 Demain et al. 2009 Magoun & Dean 2000 pp. 38-41	D. Sikes

	Insect Ecology and Conservation		
@28November	<b>Sub-Arctic Biocultural Diversity</b> (culture, linguistic, ecological worldviews and traditional ecological knowledge)  Ethnography and landscapes	Cruikshank 2001 Hunn et al. 2003	P. Loring
05 December	<b>Undergraduate and Graduate Group presentations</b>  Woodpeckers & Flagship species seminar <i>by graduate students</i>	Supplementary: Walpole & Leader-Williams 2002  <b>Submission of final essays</b>	J. Jiménez
12 December	<b>Final Exam</b>		J. Jiménez

@ indicates videoconference between University of Alaska and UNT

# indicates videoconference between University of Connecticut, University of Alaska and UNT

## READINGS REFERENCES

- Armesto, J.J., R. Rozzi, C. Smith-Ramírez & M.T.K. Arroyo. 1998. Conservation targets in South American temperate forests. *Science* 282: 1271-1272.
- Ball, E.B. 1967. Arctic Biology. *Ecology* 48: 323-325.
- Callicott, J.B. 1994. Earth's insights. University of California Press. Chapter 1 "Introduction: The notion of and need for environmental ethics", Chapter 7 "South American eco-eroticism," and Chapter 9 "A Post-Modern Evolutionary-Ecological Environmental Ethics."
- Contador, T.A., J. Kennedy & R. Rozzi. 2012. The conservation status of southern South American aquatic insects in the literature. *Biodiversity and Conservation* 21: 2095-2107.
- Cruikshank, J. 2001. Glaciers and climate change: perspectives from oral tradition. *Artic* 54: 377-393.
- Demain, J.G., B.D. Gessner, J.B. McLaughlin, D.K. Sikes & J.T. Foote. 2009. Increasing insect reactions in Alaska: is this related to changing climate? *Allergy and Asthma Proceedings* 30: 238-243.
- Gare, A. 1998. MacIntyre, narratives, and environmental ethics. *Environmental Ethics* 2-21.
- Elphick, C.S., J.E. Jimenez, R. Reyes & R. Rozzi. 2012. Seasonal dynamics of the Subantarctic bird community in different habitats of the Cape Horn Biosphere Reserve. Introduction to Chapter 2, pp. XX-XX, in Rozzi, R. & J.E. Jiménez (eds.), *Ornitología Subantártica Magallánica, Primera Década de Estudios de Aves del Parque Etnobotánica Omora, Reserva de Biosfera Cabo de Hornos, Chile. In preparation.*
- Goffinet, B., R. Rozzi, L. Lewis, W. Buck & F. Massardo. 2012. Miniature Forests of Cape Horn, Ecotourism with a Hand Lens. UNT Press, Denton, Texas - Ediciones Universidad de Magallanes, Punta Arenas, Chile.
- Hunn, E.S., D.R. Johnson, P.N. Russell & T.F. Thornton. 2003. Huma Tlingit traditional environmental knowledge, conservation, and the management of a "wilderness" park. *Current Anthropology* 44: S79-S103.
- Ippi, S., C. Anderson, R. Rozzi & C. Elphick. 2009. Annual variation of abundance and composition in forest bird assemblages on Navarino Island, Cape Horn Biosphere Reserve, Chile. *Ornitología Neotropical* 20: 231-245.

- Kessel, B. & D.D. Gibson. 1976. Status and distribution of Alaska birds. *Studies in Avian Biology* No. 1: 1-3.
- Maffi, L. (ed.) 2001. *On Biocultural Diversity: Linking Language, Knowledge, and the Environment*, Smithsonian Institution Press.
- Magoun, A.J & F.C. Dean. 2000. Floodplain forests along the Tanana river, interior Alaska. Terrestrial ecosystem dynamics and management considerations. *Alaska Boreal Forest Council Miscellaneous Publication* No. 3. Pp. 1-140.
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- Rich, T.D., C.J. Beardmore, H. Barlanga, P.J. Blancher, M.S.W. Bradstreet, G.S. Butcher, D.W. Demarest, E.H. Dunn, W.C. Hunter, E.E. Iñigo-Elias, J.A. Kennedy, A.M. Martell, A.O. Panjabi, D.N. Pashley, K.V. Rosenberg, C.M. Rustay, J.S. Wendt & T.C. Will. 2004. *Partners in Flight North American Landbird Conservation Plan*. Cornell Lab. of Ornithology. Ithaca, NY. Pp. 1-5, 40, 43.
- Rozzi, R. 2012. Biocultural Ethics: Recovering the vital links between the Inhabitants, their habits, and habitats. *Environmental Ethics* 34: 27-50.
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- Rozzi, R., C.B. Anderson, J.C. Pizarro, F. Massardo, Y. Medina, A. Mansilla, J.H. Kennedy, J. Ojeda, T. Contador, V. Morales, K. Moses, A. Poole, J.J. Armesto & M.T. Kalin. 2010. Field environmental philosophy and biocultural conservation at the Omora Ethnobotanical Park: Methodological 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].
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Yesner, D.R. 2004. Prehistoric maritime adaptations of the sub-Arctic and sub-Antarctic zones: the Aleutian/Fuegian connection reconsidered. *Arctic Anthropology* 41: 76-97.

#### 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>

***Ecotourism with a hand lens "The Invisible Journey"*** by

***They killed Sister Dorothy.*** 2009. Directed by Daniel Junge, produced by Henry Ansbacher and Nigel Nobel. Just Media production. Chilton Media Library DVD 11030.

***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.

***Convivencia.*** 2009. Directed by Fritz Dent. Sub-Antarctic Biocultural Conservation Program UNT & Universidad de Magallanes.

***The Return to the Den (El Regreso a la Madriguera).*** 2011. Directed by Jaime Sepúlveda. Sub-Antarctic Biocultural Conservation Program UNT & Universidad de Magallanes. <http://vimeo.com/31905600>