



**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 2011*

**Core Professors:**

Dr. Jaime E. Jiménez, *wildlife ecologist*, UNT  
 Dr. Ricardo Rozzi, *conservation philosopher*, UNT

**Collaborating & Invited Lecturers:**

Dr. James Kennedy, *biologist*, UNT <https://faculty.unt.edu/editprofile.php?pid=1930&onlyview=1>  
 Dr. J. Baird Callicott, *philosopher*, UNT <http://www.phil.unt.edu/people/faculty/j-baird-callicott>  
 Dr. Jorge Chávez, Forestry Engineer, Director of Ecotourism graduate program, Universidad La Molina, Lima, Perú  
 Dr. Christopher Elphick, *ornithologist*, University of Connecticut  
<http://hydrodictyon.eeb.uconn.edu/people/birdlab/elphick.html>  
 Dr. Bernard Goffinet, *bryologist*, University of Connecticut <http://www.eeb.uconn.edu/people/goffinet/>  
 Dr. Roy May, environmental *theologist and philosopher*, Latin American Biblic University of Costa Rica  
 Dr. Kathryn E. Sieving, *ornithologist*, Univ. of Florida <http://www.wec.ufl.edu/faculty/sievingk/>

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

PHIL 4053, 5780  
 BIOL 4053, 5053

**Class Schedule:**

Fall semester; Thursdays, 6:00 – 8:50 PM (Central Daylight/Standard Time)  
 Gateway 049

**Office Hours:**

J. Jiménez: Tue & Thu 3:00-4:30 pm (LSA 246E) or by appointment  
 (Phone: 940-369-5077; email: [Jaime.Jimenez@unt.edu](mailto:Jaime.Jimenez@unt.edu))  
 R. Rozzi: Tue & Thu 3:30-5:00 pm (EESAT 310P) or by appointment  
 (Phone: 940-565-2266; email: [Ricardo.Rozzi@unt.edu](mailto:Ricardo.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://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.

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 for Students (IRES) program that includes a field experience, financed by a National Science Foundation (NSF), 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:

- A basic understanding of the geography, history, culture, and ecology of the sub-Antarctic ecoregion of southern South America
- 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 both biological and cultural diversity
- 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), and this semester also on Neotropical ornithology (e.g., Francois

Vuilleumier, Christopher Elphick, Kathryn Sieving), and the topics of biotic homogenization and flagship species.

### Readings:

Required purchased texts are:

- Maffi, L. 2001. On biocultural diversity. Smithsonian Institution Press.
- Rozzi, R., F. Massardo, C. Anderson, S. McGehee, G. Clark, G. Egli, E. Ramilo, U. Calderón, C. Calderón, L. Aillapan & C. Zárraga. 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.
- 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 **Oct. 27<sup>th</sup>** based on a research topic chosen at the beginning of the semester (see Appendix with list of Research Topics Fall 2011). Each group is required to submit, by email, a professional PPT presentation on **Oct. 13<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 for their presentation on Oct. 27<sup>th</sup>.

**On the day of the presentation, each group will also turn-in a short essay**, max 6 pages, double spaced, font size 12, Times New Roman, 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.

The essays will be distributed to the class as supplementary reading materials. On **Nov. 3<sup>rd</sup>** 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 **Dec. 1<sup>st</sup>**; **no exceptions will be made for this deadline.**

#### 2) 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.

#### 3) 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.

#### 4) Tests (25%)

Two tests will be taken during the semester worth 10% and 15% of the grade, respectively. Graduate students will be given an additional essay question on each exam.

#### 5) Final Essay (25%)

Together with the course coordinators, groups of 4-5 students will select a topic of relevance to sub-Antarctic biocultural conservation and elaborate a “review-type” article, using an extensive bibliographic search. On Oct 27<sup>th</sup> students will present a PowerPoint presentation (see 1 above) and turn in the first draft. On Dec 1<sup>st</sup> the revised draft is due. Also, on Dec. 1<sup>st</sup> graduate students will require presenting a seminar on a flagship species.

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
25 August	Syllabus review  <b>Introduction to the Bio-Cultural Conservation Course</b>	Film: <i>They killed Sister Dorothy</i>  Omora, Yahgan story. <i>Multi-Ethnic Bird Guide</i> . Pp. 167-170.	R. Rozzi J. Jiménez J. Kennedy
1 September	<b>Biocultural Conservation &amp; Liberation Theology in Brazil</b>  <ul style="list-style-type: none"> <li>Brief review of Gare’ article <i>by a graduate student</i></li> <li>Boff’s eco-theology</li> <li>Roy May’s environmental ethics &amp; Dorothy Stang, Chico Mendez and Leonardo Boff</li> </ul>	Documentary: <i>Interview with Leonardo Boff by R. Rozzi</i>  Gare 1998  Supplementary: Interview with Boff <i>by R. Rozzi</i>	R. May R. Rozzi
8 September	<b>Unit I: Characterization of the Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</b>  The Magellanic Sub-Antarctic Ecoregion	Armesto et al. 1998 Rozzi et al. accepted Introduction to the temperate forests. <i>Multi-Ethnic Bird Guide</i> . Pp. 15-20.  Supplementary:	J. Jiménez

		Rozzi et al. 2006 <a href="http://www.ecologyandsociety.org/vol11/iss1/art43/">http://www.ecologyandsociety.org/vol11/iss1/art43/</a>	
15 September	<b>Unit I: Characterization of the Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</b> <ul style="list-style-type: none"> <li>• Magellanic Sub-Antarctic Avifauna</li> <li>• Film The Life of Birds</li> </ul>	Magellanic Woodpecker (Lana), Yahgan story. <i>Multi-Ethnic Bird Guide</i> . Pp. 49-51  Vuilleumier 1985  Film: <i>The Life of Birds</i> by D. Attenborough.	J. Jiménez
22 September	<b>Unit I: Characterization of the Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</b> Ethno-Ornithology & Biocultural Diversity <ul style="list-style-type: none"> <li>• Brief review of Callicott's Foreword <i>by a graduate student</i></li> <li>• Tapaculo story</li> <li>• Maffi' introduction</li> </ul>	Maffi 2001. On Biocultural Diversity. Pp. 1–50.  Introduction to Ethno-Ornithology. <i>Multi-Ethnic Bird Guide</i> . Pp. 9-11  Magellanic Tapaculo, Mapuche & Yahgan story. <i>Multi-Ethnic Bird Guide</i> . Pp. 52-55.	R. Rozzi
29 September	<b>Synthesis Unit I: Characterization of the Magellanic Sub-Antarctic Ecoregion &amp; Biocultural Diversity</b> <ul style="list-style-type: none"> <li>• Brief review of chapters by Lizarralde &amp; Zent <i>by a graduate student</i></li> <li>• Austral Thrush story</li> <li>• Field environmental philosophy</li> </ul>	Maffi 2001. On Biocultural Diversity. Pp. 265-281 (Lizarralde); Pp. 190-211 (Zent). Rozzi et al. 2008a  Austral Thrush, Mapuche & Yahgan story. <i>Multi-ethnic Bird Guide</i> . Pp. 147-149.	R. Rozzi
6 October	<b>Mid-Term Exam Unit I</b>  Comparative environmental philosophy by Baird Callicott	Callicott's Earth's Insights Introduction (Chapter 1) & South American eco-eroticism (Chapter 7)	B. Callicott R. Rozzi
#13October	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism</b> <ul style="list-style-type: none"> <li>• Sieving's perspectives on conservation and philosophy of science</li> <li>• Conservation and Ornithological studies in southern South America</li> </ul>	Willson et al. 1994 Sieving et al. 2000 Sieving & Silva-Rodríguez 2011	K. Sieving J. Jiménez
20 October	<b>Unit II: Introduction to Sub-Antarctic</b>	Film: <i>Convivencia</i>	J. Kennedy

	<b>Conservation, Ornithology, Education, and Ecotourism</b> Ecotourism, Education and Bio-Cultural Conservation <ul style="list-style-type: none"> <li>• Brief review of chapters by Posey &amp; Skutnabb-Kangas <i>by a graduate student</i></li> <li>• Film Convivencia</li> <li>• Freshwater ecology education</li> </ul>	Moorman et al. 2006 Rozzi et al. 2010. Pp. 1-5  Maffi 2001. On Biocultural Diversity. Pp. 379-395 (Posey) & pp. 396-432 (Skutnabb-Kangas)	R. Rozzi
27 October	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism</b> <i>Undergraduate Group presentations</i>		J. Jiménez R. Rozzi
3 November	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism</b> Bird Research, Ecotourism and Sub-Antarctic Avifauna <ul style="list-style-type: none"> <li>• Elphick's view of avian conservation</li> <li>• Sub-Antarctic Ornithology and Ecology</li> </ul>	Rozzi et al. 2010. Pp. 25-27 Ippi et al. 2009 Elphick et al. 2011	C. Elphick J. Jiménez
&10Novemb.	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism</b> Sub-Antarctic Ecotourism <ul style="list-style-type: none"> <li>• Brief review of chapter by Blount <i>by a graduate student</i></li> <li>• Film Return to the Den</li> <li>• Chávez on Ecotourism and conservation</li> </ul>	Goffinet et al. 2012. Chapters 1 & 2  Maffi 2001. On Biocultural Diversity. Pp. 503-516 (Blount)  Film: <i>Return to the Den</i>	J. Chávez R. Rozzi
@17Novemb.	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism</b>  Sub-Antarctic Bryology in "The Miniature Forests of Cape Horn:" Science, education and conservation	Rozzi et al. 2008b Goffinet et al. 2012. Chapters 3 & 4	B. Goffinet R. Rozzi
24 November	Thanksgiving	-----	-----
1 December	<b>Unit II: Introduction to Sub-Antarctic Conservation, Ornithology, Education, and Ecotourism.</b> <i>Sub-Antarctic Biodiversity:</i> The pristine landscapes of Cape Horn	Maffi 2001. On Biocultural Diversity. Pp. 540-45 (F. Manriquez) & pp. 145-156 (G. Nabhan)  Supplementary:	J. Jiménez R. Rozzi J. Kennedy

	<ul style="list-style-type: none"> <li>• Brief review of chapters by Manriquez &amp; Nabhan <i>by a graduate student</i></li> <li>• Woodpeckers &amp; Flagship species seminar <i>by graduate students</i></li> </ul> <p><b><i>Submission of final essays</i></b></p>	Walpole & Leader-Williams 2002  Hargrove 2008	
8 December	<b><i>Final Exam</i></b>		J. Jiménez J. Kennedy

# indicates videoconference between UNT and University of Florida

@ indicates videoconference between UNT and University of Connecticut

& indicates videoconference between UNT and Universidad Agraria La Molina, Peru

### 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.
- 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".
- Gare, A. 1998. MacIntyre, narratives, and environmental ethics. *Environmental Ethics* 2-21.
- Elphick, C.S., J.E. Jimenez, R. Reyes & R. Rozzi. 2011. 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. *Ecotourism with a Hand Lens in the Miniature Forests of Cape Horn. UNT Press - Ediciones Universidad de Magallanes.*
- Hargrove, G. 2008. A Traditional and Multicultural Approach to Environmental Ethics at Primary and Secondary School Levels. *Environmental Ethics* 30: 263-71.
- 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.
- Maffi, L. (ed.) 2001. *On Biocultural Diversity: Linking Language, Knowledge, and the Environment*, Smithsonian Institution Press.
- Moorman, M.C., C.B. Anderson, Á.G. Gutiérrez, R. Charlin & R. Rozzi. 2006. Watershed conservation and aquatic benthic Macroinvertebrate diversity in the Alberto D'Agostini National Park, Tierra del Fuego, Chile 34: 41-58.
- Rozzi, R., F. Massardo, C. Anderson, K. Heidinger & J.A. Silander, Jr. 2006. Ten principles for biocultural conservation at the southern tip of the Americas: the approach of the Omora Ethnobotanical Park. *Ecology and Society* 11: 43. [online] URL: <http://www.ecologyandsociety.org/vol11/iss1/art43/>
- Rozzi, R., J. Armesto, B. Goffinet, W. Buck, F. Massardo, J. Silander, M. Kalin-Arroyo, S. Russell, C.B. Anderson, L. Cavieres & J.B. Callicott. 2008a. Changing biodiversity conservation lenses: insights from the sub-Antarctic non-vascular flora of southern South America. *Frontiers in Ecology and the Environment* 6: 131-137.

- Rozzi, R., X. Arango, F. Massardo, C. Anderson, K. Heidinger & K. Moses. 2008b. Field Environmental Philosophy and Biocultural Conservation: The Omora Ethnobotanical Park Educational Program. *Environmental Ethics* 30: 325-336.
- 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].
- Rozzi, R., F. Massardo, C. Anderson, S. McGehee, G. Clark, G. Egli, E. Ramilo, U. Calderón, C. Calderón, L. Aillapan & C. Zárraga. 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.
- Rozzi, R., J. Armesto, J. Gutierrez, C. Anderson, F. Massardo, G. Likens, A. Poole, K. Moses, E. Hargrove, A. Mansilla, J. Kennedy, M. Willson, K. Jax, C. Jones, J.B. Callicott & M. Arroyo. Integrating ecology and environmental ethics: Earth stewardship in the southern end of the Americas. *BioScience*. *Accepted*.
- Sieving, K.E. & E. Silva-Rodríguez. 2011. Presentation. 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*.
- Sieving, K.E., M.F. Willson & T.L. De Santo. 2000. Defining corridor functions for endemic birds of south-temperate rainforest. *Conservation Biology* 14: 1120-1132.
- Vuilleumier, F. 1985. Forest birds of Patagonia: Ecological geography, speciation, endemism and faunal history. *Ornithological Monographs* 36: 255-304.
- Willson, M.F., T.L. De Santo, C. Sabag & J.J. Armesto. 1994. Avian communities of fragmented south-temperate rainforests in Chile. *Conservation Biology* 8: 508-520.

#### FILMS REFERENCES

- They killed Sister Dorothy***. 2009. Directed by Daniel Junge, produced by Henry Ansbacher and Nigel Nobel. Just Media production.
- The Life of Birds*** by D. Attenborough. BBC video (3 DVD disks)
- Interview with Leonardo Boff***. 2006. Directed by Ricardo Rozzi & Claudia Sepulveda, produced by Alfredo Agüero. Universidad de Magallanes, Educational Record.
- 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.