

***Global Biodiversity and Culture:
Integrating Conservation and Human Well-being***
BOT4935/ZOO4926, 4 credits, Spring 2026

INSTRUCTORS:

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- All email correspondences must be from your “.ufl” account and have your full name in the body of the email, or through Canvas. Otherwise, your message may not be recognized by our email filters, and thus, may not be answered.

CLASS MEETINGS:

Tuesday, period 8 (3:00-3:50 PM)
Wednesday, period 2 (8:30-9:20 AM)
Thursday, period 7/8 (1:55-2:45 and 3:00-3:50 PM)

OFFICE HOURS:

By appointment; email us to set up a Zoom or office appointment.

COURSE OBJECTIVES AND GOALS:

The term biodiversity represents the variety of life on earth. This biodiversity can be described at a number of levels – genetic, species, community, ecosystem – but in any case, this diversity is essential for the successful functioning of the global biosphere. The relationship between biodiversity and human well-being was explicitly studied in the systematic review “Biodiversity loss and its impact on humanity” (*Nature*, 2012). This study highlighted the fact that the “suite of benefits that ecosystems provide to humanity” are weakened by loss of biodiversity. Scientific, economic, and aesthetic tolls accompany an erosion of human well-being.

As such, biodiversity conservation and sustainability efforts throughout the world are essential to humanity’s future, but face many challenges. These challenges are especially difficult in developing countries, which may have high levels of poverty and population density, and lack basic infrastructure and food security. Strategies

imposed by outsiders without taking into consideration local culture, customs, and traditions, and the needs (health, food, education, social justice) of the local people are rarely effective. Recent work strives to integrate the biological with the human, developing new strategies and methods for biodiversity conservation. Such approaches to global conservation highlight the need for solutions – without unintended consequences – that respond both to human and environmental concerns.

Global Biodiversity and Culture: Integrating Conservation and Human Well-being, introduces these global concerns. Students will learn about biodiversity and conservation (and human dimensions that facilitate or impede conservation progress) in four regions of the world – Madagascar, Ecuador’s Choco and tropical Andes regions, the Himalayas, and the Coastal Plain of the US.

Students in the course will gain experience in engaging with experts at home and abroad, including Madagascar, Ecuador and India, via Skype, Zoom, or other technology to the distant locations. The course has been developed for students in majors related to and/or interest in the life sciences, conservation and sustainability, anthropology and cultural studies, human health and well-being, and the geographical areas of concern (Madagascar, Ecuador, India, the US), as well as those interested in the future of our planet.

After having completed the course and all of the requisite assignments, students will have an understanding of:

- Relationships among biodiversity/conservation and culture, social justice, healthy communities and human well-being;
- Models of conservation, sustainability, conservation education, and ecotourism;
- Finding biological, health science, and anthropological/cultural information, evaluating information, and avoiding plagiarism;
- Biodiversity and conservation challenges in four specific areas – Ecuador, India, Madagascar, the Southeastern US – and how to compare and contrast these challenges and strategies to overcome the challenges;

And students will have gained experience conversing with experts outside the United States.

Students may also reflect on how the lessons learned in the course can inform the decisions we make on a daily basis, both at home and abroad.

SCHEDULE OF TOPICS AND ASSIGNMENTS:

Disclaimer- because the course content depends in part on the schedules of outside speaker, it may be subject to change- advance notice will be given.

Note – required readings/video viewings may change throughout the semester. Any changes will be posted in advance.

Week 1: An Introduction to Biodiversity and Biodiversity Hotspots

- Tuesday, Jan. 13 Introductions, syllabus, structure of class (Stoyan-Rosenzweig, Pyche)

****DUE – Tuesday, Jan. 13 - Pre-class self-assessment**

- Wednesday, Jan. 14 Biodiversity and its importance (Miyamoto)

****Reading:** Cardinale et al “*Biodiversity loss and its impact on humanity*”

****Reading:** Myers et al “*Biodiversity hotspots for conservation priorities*”

- Thursday, Jan. 15 (per7) Coexistence with biodiversity: Examples of how peoples use natural resources over time (Stoyan-Rosenzweig)

**Reading: D.J. Meltzer, *Overkill, glacial history, and the extinction of North America's Ice Age megafauna*

**Reading: Steadman, *Extinctions of Polynesian Birds*.

**Reading: "Indigenous Knowledge,"

<https://www.cnn.com/2024/08/10/climate/climate-change-maori-new-zealand>

- Thursday, Jan, 15 (per8) Biodiversity of Madagascar (Tennant)

**Reading: Jones et al "Last Chance for Madagascar's Biodiversity"

Week 2: Complete Biodiversity Hotspots and Attributes; Writing Tips

- Tuesday, Jan. 20 Biodiversity of Western Ghats (Stoyan-Rosenzweig)

****DUE –Tuesday, Jan. 20 – Choose top 3 NGOs for final project and submit to Nina via email**

- Wednesday, Jan. 21 Biodiversity of Florida (Stoyan-Rosenzweig)

**Reading: Noss et al "How Global Biodiversity Hotspots ... North American Coastal Plain"

- Thursday, Jan. 22 (per 7) Biodiversity of Ecuador (Endara)

**Reading: Guayasamin et al "Biodiversity Conservation: Local and Global Consequences ..."

- **Thursday, Jan. 22 (per 8) Rights of Nature- long term coexistence and seeking harmony (Stoyan-Rosenzweig)**

**Paxton, Living in Harmony with Nature: A Foundation for Sustainable Development.

**Stone, Should Trees Have Standing?—Towards Legal Rights for Natural Objects.

**Doncaster, "Living in harmony with nature is achievable only as a non-ideal vision.

Week 3: Complete Biodiversity Hotspots and Attributes; Begin Culture

****DUE – Monday, Jan. 26 – Reflective journal upload due for weeks 1 and 2**

- Tuesday, Jan. 27 **DISCUSSION** - biodiversity, how people use resources, culture and challenges in Ecuador, Florida, India, Madagascar **(STUDENT LEADS)**

**Reading: Zaitchik "How conservation became colonialism"

- Wednesday, Jan. 28 Introduction to Culture (Strong)

**Reading: Engelke "How to think like an anthropologist" (through p. 15)

- Thursday, Jan. 29 (per 7) Inclusive archaeology (Douglass)

**Video: Douglass "Diggin' In" <https://www.youtube.com/watch?v=UfAMyqrSb0s&t=327s>

**Reading: Douglass et al "Toward a Just and Inclusive ..."

- Thursday, Jan. 29 (per 8) Indigenous people and culture (Mahar)

**Reading: Maffi "Biocultural diversity and sustainability"

Week 4: Complete Culture; Begin Ecotourism

- Tuesday, Feb. 3 **DISCUSSION** - culture, biodiversity, conservation readings and speakers **(STUDENT LEADS)**

**Reading: Sodikoff "Totem and taboo reconsidered"

**Reading: Holmes et al "Fantastic beasts and why to conserve them"

- Wednesday, Feb. 4 US Ecotourism - Connecting with Birds and Nature, Gullah-Geechee (Stoyan-Rosenzweig)

**Joe Family Ecotourism- <https://www.nbcnews.com/video/eco-tourism-one-of-many-new-businesses-bringing-prosperity-to-selma-159705669703> (watch Ecotourism story);

and <https://www.youtube.com/watch?v=twjrp4pAmmU>

and https://www.youtube.com/watch?v=NPIFOJEtC_c&t=4s

- Thursday, Feb. 5 (per 7) Ecotourism in the US (Stein)
**Reading: Jenkins *"US protected lands mismatch biodiversity priorities"*
 - Thursday, Feb. 5 (per 8) Ecotourism in Ecuador (Rivadeneira)
**Reading: WTTC *"Travel & Tourism: Economic Impact 2018: Ecuador ..."*
**Reading: WTTC *"Ecuador 2022: Annual Research Key Highlights ..."*
- **DUE – Friday, Feb 6 - Reflective essay 1 - American Culture and Biodiversity/Conservation**

Week 5: Complete Ecotourism

****DUE - Monday, Feb. 9– Reflective journal upload due for weeks 3 and 4**

- Tuesday, Feb. 10 Ecotourism in India (Stoyan-Rosenzweig)
- Wednesday, Feb. 11 Ecotourism, conservation, culture (Almeyda-Zambrano)
**Reading: Lopez Gutierrez et al *"Ecotourism: the human shield ..."*
- Thursday, Feb. 12 (per 7) Ecotourism in Madagascar (Andriamihajirinina)
**Reading: WTTC *"Travel & Tourism: Economic Impact 2018: Madagascar ..."*
**Reading: WTCC *"Travel & Tourism: Economic Impact 2022: Madagascar ..."*
**Reading: World Bank *"Mada ... Unlocking the Tourism Potential"*
- Thursday, Feb. 12 (per 8) **DISCUSSION - Ecotourism (STUDENT LEADS)**
**Reading: Gezon *"Who wins and who loses ..."*

Week 6: Conservation Education, Strategies, and the Arts

- Tuesday, Feb. 17 Foundational lecture on Conservation Education (Ennes)
**Reading: Monroe *"Co-evolution of ESD and EE"*
**Reading: Monroe *"Practitioner Guide to Assessing Connection to Nature"* – this one to get the general idea, read pgs. 14-15
- Wednesday, Feb. 18 Madagascar from A to Z/Film and Tourism to Promote Conservation (Tennant, Andriamihajirinina, Nguyen, Gibson)
**Reading: Dolins, et al *"Conservation education in Madagascar: three case studies ..."*
**Reading: Gibson and Nguyen *"Madagascar from A to Z"*
**Tropical Herping (<https://www.tropicalherping.com/>)
**Video See announcement in Canvas for video link
- Thursday, Feb. 19 (per 7) Classroom and other conservation strategies (Schubel)
- Thursday, Feb. 19 (per 8) Conservation education in India (Stoyan-Rosenzweig, Salazar)

Week 7: Complete Conservation Education, Strategies, and the Arts; Begin Biodiversity and Health

****DUE - Monday, Feb. 23 - Reflective journal upload due for weeks 5 and 6**

- Tuesday, Feb. 24 **DISCUSSION - conservation education and the arts (STUDENT LEADS)**
**Reading: Rakotomamonjy et al *"The effects of environmental education on children's ..."*
- Wednesday, Feb. 25 Invasive species, human and animal health (Wisely)
**Reading: Chinchio *"Invasive alien species and disease risk ...public and animal health"*
- Thursday, Feb. 26 (per7) Hunger and Biodiversity Loss (Borgerson)
**Reading: Borgerson et al *"Food insecurity and the unsustainable hunting of wildlife ..."*
**Video: <https://www.bbcearth.com/how-can-a-small-insect-help-in-the-fight-against-famine>
- Thursday, Feb. 26 (per8) Health and Green Spaces (Stoyan-Rosenzweig)

Week 8: Biodiversity, Health and Human Well-being

****DUE – Monday, March 2 - Reflective essay 2 - Ecotourism and Conservation Education**

- Tuesday, Mar. 3 Biodiversity and Zoonoses (Manes)
**Reading: Section 7, *Oxford Textbook of Nature and Public Health*
- Wednesday, Mar. 4 Indigenous people and health (Stoyan-Rosenzweig)
**Reading: Section 9, *Oxford Textbook of Nature and Public Health*
- Thursday, Mar. 5 (per 7) CHAMP (Climate, Health, Agricultural Monitoring Project) in Madagascar (Golden)
**Reading: “Fall in Fish Catch Threatens Human Health”
- Thursday, Mar. 5 (per 8) Biodiversity and psychology (Stoyan-Rosenzweig)
**Reading: Section 2.1, *Oxford Textbook of Nature and Public Health??*

Week 9: Complete Biodiversity, Health, and Human Well-being; begin Ethics, Religion, Policy

****DUE – Monday, Mar. 9 - Reflective journal upload due for weeks 7 and 8**

- Tuesday, Mar. 10 Ethics and biodiversity (Peterson)
**Reading: Leopold “The Land Ethic”
- Wednesday, Mar. 11 Major world religions and conservation (Najiyah)
**Reading: “Faith in the West ...”
**Reading: “Religion and Biodiversity Conservation ...”
- Thursday, Mar. 12 (per 7) **DISCUSSION** - Biodiversity and Health (Stoyan-Rosenzweig leads)
**Reading: Sections 1.5, 2.2-2.6, 3.1-3.2, 4.1, 5.1-5.2, 6.1-6.4, 10.4 *Oxford Textbook of Nature and Public Health??*
- Thursday, Mar. 12 (per 8) **DISCUSSION** - *Half Earth* (**STUDENT LEADS**)
**Reading: Wilson “Half Earth: Our Planet’s Fight for Life”

****DUE – Friday, Mar. 13 – Project Mid-semester Reports**

WEEK OF MARCH 16-20 – SPRING BREAK, NO CLASS

Week 10: Ethics, Religion and Policy (cont.)

- Tuesday, March 24 Biodiversity, Sustainability, Economics and Public Policy (Carney)
**Reading: Cardinale (You read the Cardinale paper for our very first guest speaker; skim again if you have time)
- Wednesday, March 25 Communicating Science to the Public (Nodine)
**Reading: Christiano “The Science of What Makes People Care”
- Thursday, March 26 (per 7) Alternatives to Half Earth (Stoyan-Rosenzweig)
**Reading: Karieva “What is Conservation Science?”
**Reading: 30 by 30 Website <https://www.nature.org/en-us/what-we-do/our-priorities/protect-water-and-land/land-and-water-stories/committing-to-30x30/#:~:text=30x30%20is%20a%20worldwide%20initiative,as%20protected%20areas%20by%202030.>
- Thursday, March 26 (per 8) **DISCUSSION** – Ethics, religion, justice, public policy, Karieva paper (**STUDENT LEADS**)
****DUE – Friday, Mar. 27 - Reflective Essay 3 - Biodiversity and Health**

Week 11: Models of Conservation

****DUE - Monday, Mar. 30 - Reflective journal upload due for weeks 9 and 10**

- Tuesday, Apr. 31 Ashton Biodiversity Center/Connecting Bird & Nature Tours (Pirtle)

**Videos: <https://ashtonbiodiversity.com/home/our-story/>
<https://www.facebook.com/watch/?v=322336822272075>

- Wednesday, Apr. 1 Centre Val Bio (Wright)
**Reading: Wright & Andriamihaja “*Making a rain forest national park work ...*”
**Website: Centre Val Bio (<https://www.stonybrook.edu/commcms/centre-valbio/>)
- Thursday, Apr. 2 (per7) Starting a conservation NGO in Dominica (Brisbane)
- Thursday, Apr. 2 (per 8) Field Work/Hunting and Funding for conservation (Stoyan-Rosenzweig)
**Reading: Demery & Pipkin “*Safe field-work strategies ...*”

Week 12: Models of Conservation

- Tuesday, Apr. 8 Aquaria, zoos, conservation; children’s books (Pittenger, George)
- Wednesday, Apr. 9 Blue Ventures (Lewis)
**Website: Blue Ventures <https://blueventures.org/>
**Reading: Singleton et al “*Conservation, contraception, and controversy*”
- Thursday, Apr. 10 (per7) Importance of zoos in conservation (Stoyan-Rosenzweig)
- Thursday, Apr. 10 (per8) Ficus Wildlife Tours (Stoyan-Rosenzweig)

Week 13: Models of Conservation

****DUE - Monday, Apr. 13 - Reflective journal upload due for weeks 11 and 12**

- Tuesday, Apr. 14 Associations, community forests, and high-end travel (Tennant)
**Reading: Gould & Andrianomena “*Ring-tailed lemurs ... south-central Madagascar*”
**Reading: Dolch et al “*Improving livelihoods ... biodiversity conservation in Andasibe, eastern Mada*”
**Reading: Renkert “*Community-owned tourism and degrowth ... Kichwa*”
** Websites: Mashpi Lodge (<https://www.mashpilodge.com/>), Napo Wildlife Center (<https://www.napowildlifecenter.com/>)
- Wednesday, Apr. 15 **DISCUSSION** - *Biggest Little Farm* and *Kiss the Ground* films (**STUDENT LEADS**)
**Videos: *Biggest Little Farm* and *Kiss the Ground* – see announcements for access
- Thursday, Apr. 16 (per7) Climate change mitigation (Young)
- Thursday, Apr. 16 (per8) **DISCUSSION** – Models of Conservation (**STUDENT LEADS**)
****DUE – Friday, Apr. 17 – Reflective Essay 4, Models of Conservation**

Week 14: Student presentations and class wrap-up

- Tuesday, Apr. 21 Student presentations
- Wednesday, Apr. 22 Student presentations and class wrap up
**DUE – Wednesday, Apr. 22 - Post-class self-assessment
**DUE – Saturday, Apr. 25 - Reflective Journal upload due for weeks 13-14 and final journal summary
**DUE – Monday, Apr. 27 – Final Project Report

GRADING:

Class participation: Students are expected to participate in discussions of readings and lectures, and to engage with guest speakers. Credit will be given based on the following breakdown: Students who participate during

at least 90% of class meetings will receive full credit (155 points); Students who participate during 80-89% of class meetings will receive 90% of full credit (139 points); Students who participate during 70-79% of class meetings will receive 75% of full credit (116 points); Students who participate during 50-69% of class meetings will receive 50% of full credit (78 points); Students who participate during less than 50% of class meetings will receive 0 points for participation. **Note that participation does not mean attendance, but is active participation – contributing to discussion, asking guest speakers questions, etc.**

Semester long project: Through this project, students will learn how conservation programs function both locally and globally and how many are moving to ensure people living locally are involved in planning and all aspects of the program implementation – especially programs designed to maintain biodiversity.

Each student will choose one separate organization (each student will have a different organization) or the government organized initiatives of a specific country and follow it throughout the semester. Students will provide a brief mid-semester report and a longer report at the end of the semester, that includes a presentation to the class. In addition to a description of the organization, its mission, programs and areas of focus, organizations will be assessed based on social media presence, website, merchandising, report on Charity Navigator, news presence, research and publication record. The semester long project will be worth a total of 170 points, and will include two written assignments and a presentation. More detail will be provided in class.

Leading discussion: Each student will lead one or two discussions during the semester (depending on class size). Students will be responsible for creating an outline PPT, as well as discussion questions. Students will Zoom with the instructors ahead of time to discuss their presentation. 60 points each.

Reflective journal: Your reflective journal will concentrate on concepts learned, what surprised you, what confused you, and what questions were generated through your reflections of our class sessions and the readings. It is expected that you will cover **each week of the semester with a minimum 250 word entry**. These should be posted every other week (**so two weeks at a time; 500 words**); the deadlines are listed on canvas and above on this syllabus. Entries will be uploaded through Canvas. At the end of the semester you will also submit a summary of the most impactful things you learned from the course - length and instructions will be provided later in the semester. The reflective journal will be worth a total of 100 points.

Short reflective writings: 4 times during the semester you will write short (1500 words) reflection papers on particular prompts, such as comparing points of view on specific strategies among the countries of interest. Reflective writings will be worth 50 points each.

Pre- and post-class self-assessment: After the first and last class meetings you will complete a self-assessment of comfort levels and areas of improvement for communicating with those of other cultures. Gaining experience in such communication is an important component of International Scholar Program classes. Completion of the pre- and post-assessment will be worth 5 pts/assessment.

Your final grade will be based on the percentage of the total points earned as follows:

Point Range (%)

Letter Grade

90% and above	A
87-89%	A-
83-86%	B+
80-82%	B
77-79%	B-
73-76%	C+
70-72%	C
65-69%	C-
55-64%	D
54% and below	E

UF GRADING POLICIES:

Grading policies are consistent with university policies that can be found [here](#) .

ATTENDANCE:

Attendance at and participation in class sessions are mandatory, with point totals described above.

It is understood that valid absences may occur. If you have a valid documented excuse and notify the instructor by email in advance, you will be able to make up missed class discussions through written means. This follows university policy for absences.

MAKEUP HOMEWORK DUE TO ILLNESS OR FAMILY EMERGENCY:

No homework will be accepted late without formal documentation of illness or family emergency. Specifically, the student will need to have the Dean of Students Office (P202 Peabody Hall) send a formal accommodation document to course faculty stating that the student was unable to complete the homework on the scheduled date due to illness or family emergency. These notes from the Dean's Office must be received by course faculty within 3 business days after the homework is due.

REQUIRED TEXTBOOKS:

- *Oxford Textbook of Nature and Public Health: The Role of Nature in Improving the Health of a Population*, 2018, edited by Matilda van den Bosch and William Bird.
- *Half Earth: Our Planet's Fight for Life*, 2016, Edward O. Wilson.
- *Connecting Global Priorities: Biodiversity and Human Health. A State of Knowledge Review*, 2015, World Health Organization. Available free of charge at:
https://apps.who.int/iris/bitstream/handle/10665/174012/9789241508537_eng.pdf;jsessionid=A36ED91A319F13169D8153971326A223?sequence=1

COURSE WEBSITE:

Course website: E-Learning (Canvas) website, <http://lss.at.ufl.edu>

The E-Learning (Canvas) website is where the class syllabus, handouts, notes and assignments will be posted, along with any announcements. This site is also where you will find basic course-related information. Please remember that you are responsible for all announcements made in lecture and/or posted on the course website for this class.

MATERIALS AND SUPPLIES FEES:

There are no materials and supplies fees assessed for this class.

STUDENT DEMEANOR:

Students are expected to arrive to class on time and to remain in class until the class has been dismissed. Students are expected to come to class prepared, having completed any required readings and performed any preparatory work that is assigned. While in class, students are expected to participate in class discussion, and to treat the other students and the instructor with respect and attention. While in class, students should not participate in texting, information seeking or viewing outside of that related to the course task at hand, talking on the phone, or other activities not related to classroom engagement and participation.

ACADEMIC POLICIES AND RESOURCES

Academic policies and resources are consistent with university policies and can be located on the [Academic Policies and Resources website](#).