

**THE ECOLOGY AND CONSERVATION OF TROPICAL WILDLIFE
WIS 3434 (Section 0210): Fall Semester, 2018**

INSTRUCTORS:

Dr. Emilio Bruna
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OFFICE HOURS:

Time: Wednesdays 10:30-11:45 or by appt.
Location: 380 Grinter Hall.
Schedule online at
<http://brunalab.org/teaching/office-hours>

Dr. John Blake
Phone: 846-0591
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Tuesday, 3:00-4:00 or by appointment
Location: Tropical Ecology & Conservation Lab
Directions at www.BrunaLab.org

LECTURE/DISCUSSION:

Day/Time: Tuesday, Periods 2-3 (8:30-10:25) and Thursday Period 3 (9:35-10:25)

Location: MCA 1142

COURSE OBJECTIVES: (1) To gain an understanding of the evolutionary and ecological factors that shape patterns of tropical diversity. (2) To learn some of the ways in which humans use tropical wildlife. (3) To understand the threats faced by tropical ecosystems and explore alternatives for their conservation. Although examples will be drawn from a variety of tropical ecosystems, the course will emphasize the Neotropics.

COURSE MATERIALS:

- 1) **Required Textbook:** NONE
- 2) **Recommended Textbook:** John Kricher. The New Neotropical Companion (2017). Princeton University Press. Paperback ISBN: 9780691115252; E-Book ISBN: 9781400885589. Some of the material we present in class will come from the book, so reading it may help reinforce concepts or provide some additional information to those especially interested in tropical biology. ***No exam questions will come solely from the book. It is 100% optional.***
- 3) **Required readings for discussion sections and other course materials will be available on the course e-learning page:**
 - Open your Internet browser and navigate to <https://elearning.ufl.edu/>
 - **NOTE:** If you are going to create a bookmark for e-learning login, please bookmark <https://elearning.ufl.edu/>, not the actual login page or the "My Workspace" page./

EVALUATION (=GRADING):

The grades for this course are based on the following assignments/exams:

1st Exam (October 16):	200 points
2nd Exam (December 4):	200 points
1st Draft of Wikipedia Project (due October 23)	50 points
2nd Draft of Wikipedia Project (due November 13)	50 points
Final Submission Wikipedia Project (due November 29)	100 points
Discussion Section Attendance & Participation:	50 points
TOTAL	650 points

Grades: For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. **Final Grades will be assigned on the following scale (based on percentage of points out of 650 total):**

A = $\geq 93\%$, **A-** = 92-90%

B+ = 89-87%, **B** = 86-83%, **B-** = 82-80%

C+ = 79-77%, **C** = 76-73%, **C-** = 72-70%

D+ = 69-67%, **D** = 66-63%, **D-** = 62-60%

E = 59% and below.

Absences and Make-Up Work: Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

If you need to miss an exam for whatever reason (conference, illness, family emergency, etc.), please contact us as soon as possible to make arrangements to take a make-up exam.

Regrades: Requests for re-evaluation of exams, quizzes, and other assignments will only be considered if they are accompanied by a letter explaining why you think you deserve additional credit and how many additional points. The deadline for submitting these requests is **one week** after the work has been returned.

Academic Honesty: As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment"*. It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate

personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>.

Services for Students with Disabilities: The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

WE WANT YOU TO DO WELL IN OUR CLASS, AND WILL GLADLY MAKE ANY ACCOMMODATIONS TO HELP MAKE THAT POSSIBLE!

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center

3190 Radio Road, 352-392-1575 www.counseling.ufl.edu/cwc/

- Counseling Services
- Groups and Workshops
- Outreach and Consultation
- Self-Help Library
- Training Programs
- Community Provider Database

Career Resource Center,

First Floor JWRU, 392-1601, www.crc.ufl.edu/

IUF provides an educational and working environment for its students, faculty, and staff that is free from sex discrimination and sexual harassment. For more about UF policies regarding harassment: <http://www.dso.ufl.edu/studentguide/studentconductcode.php#s4041>

Software Use: All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

COURSE OUTLINE

<u>Week</u>	<u>Date</u>	<u>Lead</u>	<u>Topic</u>
1	8/23	All	Course introduction, current research
2	8/28	JB	Species diversity 1: Historical perspectives, Speciation
	8/30	EB/JB	Discussion: Fernandes et al. 2012
3	9/4	JB	Species diversity 2: diversity gradients
	9/6	EB/JB	Discussion: Mayle et al. 2000, Ocampo-Penuela and Pimm 2015
4	9/11	EB	Climate, soils, nutrient cycling, energy flow <i>Hand out Wikipedia assignment</i>
	9/13	JB	Major tropical ecosystems 1: Forests
5	9/18	JB	Major tropical ecosystems 1: Forest Dynamics and Disturbance
	9/20	EB/JB	Discussion: Stevenson et al. 2018
6	9/25	EB	Major tropical ecosystems 2: Savannas
	9/27	EB/JB	Discussion: Staver et al. 2011
7	10/2	JB	Tropical Fauna 1: Mammals
	10/4	JB	Tropical Fauna 2: Herps & Fish
8	10/9	JB	Tropical Fauna 3: Birds
	10/11	EB	Tropical Fauna 4: Arthropods
9	10/16		EXAM 1
	10/18	EB	Biotic Interactions 1: Herbivory and trophic cascades

10	10/23	EB	Biotic interactions 2: Mutualisms
			1st draft of Wiki project due
	10/25	EB/JB	Discussion: Holbrook & Loiselles 2009
11	10/30	EB	Threats 1: Deforestation & habitat fragmentation
	11/1	JB	Threats 2: Hunting & Harvesting
12	11/6	EB	Threats 3: Climate change, Fire, Drought
	11/8	EB/JB	Discussion: Culot et al. 2017
13	11/13	EB	Conservation 1: REDD, PES, & Ecotourism
			2nd draft of Wiki project due
	11/15	EB/JB	Discussion: Conversation with Stephanie Nolen (tentative)
14	11/20	EB/JB	Free day to work on wiki projects
	11/22		NO CLASS: Thanksgiving
15	11/27	EB	Conservation 2: Forest Regeneration and Restoration
	11/29	JB	Conservation 3: Agroecology
			FINAL SUBMISSION OF WIKI PROJECT
16	12/4		EXAM 2
THERE IS NO FINAL EXAM IN THIS CLASS			

READINGS FOR DISCUSSION SECTIONS – WIS 3434

- 1) Fernandes, A. M., M. Wink, and A. Aleixo. 2012. Phylogeography of the chestnut-tailed antbird (*Myrmeciza hemimelaena*) clarifies the role of rivers in Amazonian biogeography. *Journal of Biogeography* 39: 1524-1535.
- 2) Mayle, R. E., R. Burbridge, and T. J. Killeen. 2000. Millennial-scale dynamics of southern Amazonian rain forests. *Science* 290:2291-2294.
- 3) Ocampo-Peñuela, N., and S. L. Pimm. 2015. Elevational ranges of montane birds and deforestation in the western Andes of Colombia. *PLoS ONE* e0143311. Online: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0143311#sec015>
- 4) Stevenson, P. R., A. M. Aldana, S. Cárdenas, and P. J. Negret. 2018. Flooding and soil composition determine beta diversity of lowland forests in Northern South America. *Biotropica*
- 5) Staver, A.C., S. Archibald, and S.A. Levin. 2011. The global extent and determinants of savanna and forest as alternative states. *Science* 334: 230-232 (read both the article and the accompanying “Perspective” article).
- 6) Holbrook, K. M., and B. A. Loiselle. 2009. Seed dispersal in a neotropical tree, *Virola flexuosa* (Myristicaceae): does hunting of large vertebrates limit seed removal? *Ecology* 90:1449-1455.
- 7) Culot, L, C Bello, JLF Batista, HTZ Couto, M Galetti. 2017. Synergistic effects of seed disperser and predator loss on recruitment success and long-term consequences for carbon stocks in tropical rainforests *Scientific Reports* 7(1): 7662
- 8) Stephanie Nolen (Reporting) with Aaron Vincent Elkaim (Photographs). 2018. Inside the Amazon’s Deforestation Crisis. *The Globe and Mail*. <https://www.theglobeandmail.com/news/world/amazon-rainforest-deforestation-crisis/article37722932/>