

Invasion Ecology of Amphibians and Reptiles—WIS 4934

Fall Semester 2014, University of Florida

- Instructors:** Dr. Steve A. Johnson: tadpole@ufl.edu
Office: 352-846-0557, Cell: 352-300-6119
- Dr. Christina Romagosa: cmromagosa@ufl.edu
Office: 352-273-3996
- Office hours:** Johnson: Tuesday 9:00 a.m. - 12:00 p.m., or by appointment
Room 322, Newins-Ziegler Hall
Romagosa: Tuesday 2:30 p.m. – 4:30 p.m., or by appointment
Room 307A, Newins-Ziegler Hall
- Lecture/Lab Schedule:** Monday: Periods. 9-19 (4:05-6:00 p.m.), Rm. 219, Newins-Ziegler Hall
Tuesday: Period E1 (7:20-8:10 p.m.), Rm. 219, Newins-Ziegler Hall
- Suggested Texts:** A course text is not required for this class, but students should consider purchasing the books below as references.
- 1) *Invasive Species: What Everyone Needs to Know*. D. Simberloff, Oxford University Press, ISBN 978-0-19-992203-1
 - 2) *Alien Reptiles and Amphibians*. F. Kraus Springer, ISBN 978-1-4020-8945-9, e-ISBN 978-1-4020-8946-6
 - 3) *Strangers in Paradise: Impact and Management of Nonindigenous Species in Florida*; D. Simberloff, D.C. Schmitz, and T.C. Brown (editors), Island Press, ISBN 1-55963-430-8
 - 4) *A Key to Amphibians & Reptiles of the Continental United States and Canada*; R. Powell, J.T. Collins, and E.D. Hooper, Jr., University of Kansas Press, ISBN 0-70060929-6

Course Description, Objectives, and Format :

This course will focus on the ecology and management of introduced and invasive herpetofauna (amphibians and reptiles) and their potential effects at the community and ecosystem levels in Florida, the US, and globally. Topics will include traits of invasive and introduced species, environmental characteristics that promote invasions, management efforts for invasive species, impacts invasive species have on economies, people and native ecology, as well as detailed analysis of case studies for selected species. Ecology and identification of nonindigenous amphibians and reptiles established in Florida will be emphasized.

By the end of the semester, students should understand how nonindigenous wildlife become introduced to Florida and elsewhere, and their impacts on native species and ecosystems as well as people. Students will also understand various approaches applied to manage invasive wildlife

species, be able to identify introduced herpetofauna in the field and lab, and develop a working knowledge of the natural history of introduced amphibians and reptiles in Florida.

Information delivery will largely consist of lectures, class discussion, assigned readings, and field outings. There will also be numerous laboratory sessions where students will work with preserved (and possibly live) amphibians and reptiles to learn how to identify species based on external characteristics. Students should become proficient in the use of dichotomous keys to identify individuals to species level. Attendance will not be taken, but students are required to attend lectures and labs, and *actively* participate in discussions. Attendance at the field outings is strongly encouraged, but not mandatory as these are fun and educational events.

Exams and Assignments:

Exams and quizzes: There will be 2 exams given during the course—a lecture exam, and a lab exam (100 points each). The lecture exam will consist of multiple choice, fill-in-the-blank, matching, short answer, and brief essays. Exam questions will come from material presented in lectures (by the instructors and guest speakers), videos, and assigned readings. The lab exam will be in ‘practicum’ format. Students will move among numerous stations, identifying specimens and answering natural history questions at each station. The lecture exam can only be ‘made up’ with a legitimate, documented excuse (e.g., physicians note), or if prior arrangements are made with the instructors. Due to the nature of the lab practicum, there will be no ‘make ups’—students MUST take the practicum on the scheduled date.

There are 6 quizzes in the course, each worth 20 points. The lowest quiz score will be dropped, so quizzes are worth 100 points of the final grade. Questions may consist of multiple choice, true/false, and short answer. Questions will be based on scientific papers that students are assigned to read for specific class meetings. Missed quizzes can only be ‘made up’ with a legitimate, documented excuse (e.g., physicians note), or if prior arrangements are made with the instructors. Quizzes will be administered as soon as class begins. Students arriving late will not be allowed to take that day’s quiz.

Group Project: Students will work in groups of 4-5 to complete a group project focused on educating people about introduced and invasive amphibians and reptiles. Additional details and an assignment sheet describing the project will be distributed in class and posted on the course Canvas site.

Student Presentation: Students will work in assigned pairs to deliver a PowerPoint presentation in class. Your presentation will be based on an article you read for one of the topics covered in lecture. Students will have access to PDFs of all papers for the course via the course Canvas site. A detailed assignment sheet outlining the presentation dates and a list of citations for papers on the Canvas site will be distributed in class. Student presentations may not be made up, but may be rescheduled if the students contact the instructors well in advance of the student’s presentation date.

Field Outings: There may be opportunities for several field outings in the course. This will depend on student interest, instructor schedules and UF resources—vehicles, money for fuel, etc. Potential field outings will be discussed further in class. Participation in field outings will be voluntary.

Points and Final Grade:

Points:	Lecture Exam	100 pts.
	Lab Practicum	100 pts.
	Quizzes (5)	100 pts.
	Class Project	100 pts.
	Presentation/Discussion	100 pts.
	Total Points	500 pts.

Grades: **A** (90%>), **B** (80 - 89.9%), **C** (70 – 79.9%), **D** (60 – 69.9%), **E** (<60%) Final grades are based on percentages of total points possible. Scores on quizzes, the lab practicum and the lecture exam are not curved.

Class Schedule

<u>Week</u>	<u>Dates</u>	<u>Topics</u>	<u>Speakers</u>
1	M 25 Aug T 26 Aug	Course introduction; faculty/student intros Introduced/invasive species defined	All SAJ, CMR
2	M 1 Sep T 2 Sep	UF Holiday—No Lab/class Invasion Basics	UF Holiday SAJ, CMR
3	M 8 Sep T 9 Sep	Invasion Basics Invasion Basics	SAJ, CMR SAJ, CMR
4	M 15 Sep 👉T 16 Sep	Cane Toads Videos Quiz , Student presentations/discussion	N/A Students
5	M 22 Sep 👉T 23 Sep	Case studies—Invasive Amphibians Quiz , Student presentations/discussion	SAJ Students
6	M 29 Sep 👉T 30 Sep	Case studies—Burmese Pythons Quiz , Student presentations/discussion	S. Snow Students
7	M 6 Oct 👉T 7 Oct	Case studies— BTS & other Snakes Quiz , Student presentations/discussion	CMR, SAJ Students
8	M 13 Oct 👉T 14 Oct	Case studies—Tegus & other Lizards Quiz , Student presentations/discussion	TBD Students
9	M 20 Oct 👉T 21 Oct	Case Studies—Nile Monitors Quiz , Student presentations/discussion	T. Campbell Students
10	👉M 27 Oct T 28 Oct	Student project presentations and feedback Herpetofauna Trade/Laws	All CMR
11	M 3 Nov 👉T 4 Nov	Florida's Introduced Herps Lecture Exam	SAJ Exam

12	M 10 Nov T 11 Nov	Lab introduction UF Holiday—No Lab/class	SAJ UF Holiday
13	M 17 Nov T 18 Nov	Open lab period Open lab period	N/A N/A
14	M 24 Nov T 25 Nov	Lab—Invasive Reptile Dissections Open lab period	B. Smith N/A
15	M 1 Dec T 2 Dec	Course evaluation, open lab period Open lab period	N/A N/A
16	M 8 Dec 👉 T 9 Dec	Open lab period Lab Practicum	N/A Exam

👉 Exam/quiz dates and project presentations

University of Florida Policy Statements:

Academic Honesty

In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students. In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code. **The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.** On all work submitted for credit by students at the university, the following pledge is either required or implied: **“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”** The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior. Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court. (Source: 2007-2008 Undergraduate Catalog) It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

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.

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. Both the Counseling Center and Student Mental Health Services provide 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. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health Services is located on the second floor of the Student Health Care Center in the Infirmary.

- University Counseling Center, 301 Peabody Hall, 392-1575, www.counsel.ufl.edu
- Career Resource Center, CR-100 JWRU, 392-1602, www.crc.ufl.edu/
- Student Mental Health Services, Rm. 245 Student Health Care Center, 392-1171, www.shcc.ufl.edu/smhs/
 - Alcohol and Substance Abuse Program (ASAP)
 - Center for Sexual Assault / Abuse Recovery & Education (CARE)
 - Eating Disorders Program
 - Employee Assistance Program
 - Suicide Prevention Program

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, 392-8565, www.dso.ufl.edu/drc/