

Invasion Ecology of Amphibians and Reptiles—WIS 4934

3 Credits, Fall Semester 2020, University of Florida

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Office Hours: Johnson: NZ Hall Room 216; Tuesdays 2:00 – 5:00 PM EST
Claunch: Tuesdays 2:00 – 5:00 PM EST

Please contact us via email in Canvas to schedule a virtual meeting during our office hours. **There are no face-to-face meetings this semester due to the COVID-19 pandemic.** We are happy to “meet” via phone, Zoom, or Skype.

Course Prereqs: WIS 3402 Wildlife of Florida, or permission of instructor

Course Schedule: Wednesday – pd. 11 (6:15 – 7:05 pm), Virtual via Zoom
Thursday – pds. 10-11 (5:10 – 7:05 pm), Virtual via Zoom

Course Format: This is a live course delivered via distance. **There are no face-to-face meetings**, but the course will be delivered live via Zoom on the days and times listed above. Visit this site to learn more about and become comfortable using Zoom: https://elearning.ufl.edu/zoom/#zoom_quick_start. The Canvas LMS will be used for posting course materials, links to Zoom recordings, administering exams, submitting assignments, etc. Please be sure to visit the course Canvas site ASAP and watch the “Course Introduction” and “Getting to Know You Instructor” videos at course home page to learn more about the instructors how the course is organized in Canvas. **Regularly visit the course Canvas site for important course announcements, and be sure the check your Canvas email daily.**

As a UF student registered for the class you should have access to this site WIS4934-Herp Invasions, Fall 2020. You will need your Gatorlink username and password to log into Canvas at elearning.ufl.edu (click the orange “Log In To e-Learning” button). The course should appear in your Canvas Dashboard.

Suggested Texts: A course text is **not** required for this class, but students should consider purchasing or consulting the books below as references. PDFs of peer-reviewed publications will be posted in Canvas.

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 070060929-6

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 of nonindigenous amphibians and reptiles established in Florida will be emphasized.

By the end of the semester, students should be able to:

1. Describe basic concepts in invasion ecology as they relate to reptiles and amphibians
2. Recognize the diversity and native distribution(s) of herpetofauna globally and in Florida
3. Identify and explain invasion pathways of introduced herpetofauna globally and in Florida
4. Explain the impacts of introduced herpetofauna on native species, native ecosystems, and people
5. Explain and apply various approaches to manage invasive herpetofauna
6. Conduct a Risk Assessment of non-native herpetofauna
7. Write relevant outreach documents for audiences with little scientific background
8. Prepare documents for publication

Information delivery will largely consist of live lectures, class discussion, assigned readings, and Q+A with experts. Attendance will be taken, and students are required to attend virtual lectures and *actively* participate in discussions.

Lectures/discussions will be conducted via Zoom during the class periods listed above. Zoom sessions will be recorded and made available to students online via links posted in Canvas. For more on student privacy with respect to Zoom, see the last section of this syllabus.

In general (see weekly schedule below for exceptions):

Wednesday meeting dates will be comprised of live, active-participation lectures via Zoom. Thursday meeting dates will largely consist of time reviewing quizzes, discussion of assigned papers, brief lecture, occasional Q+A with guest speakers that are experts on the week's topic, and supervised time to work on group projects.

Exams and Assignments:

Exams and quizzes: There will be 1 comprehensive lecture exam consisting of multiple choice, fill-in-the-blank, matching, short answer, and brief essays. Exam questions will come from material presented in lectures/presentations (by the instructors and guest speakers), discussions and assigned readings and will emphasize specific, weekly learning objectives listed in Canvas. The lecture exam will only be available via Canvas during the regularly scheduled class time on Thursday, Nov. 19. Feedback/discussion about the exam is scheduled for Dec. 3

There are 11 quizzes in the course, each worth 10 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 assigned readings of scientific papers. Quizzes will be available in Canvas from 9AM until 5PM on Thursdays during the first 11 weeks of the semester—see schedule below for specific quiz topics and dates. Feedback/discussion about quizzes and their associated readings will take place first thing on Thursdays.

IFAS Extension Document Project: Students will work in groups to write an IFAS Extension Document (aka, "Fact Sheet"). The first draft will be due mid-semester, and comments will be provided by the instructors that should be incorporated into a final draft. Additional details and an assignment sheet describing the project will be posted on the course Canvas site under Module 1, Week 1.

Risk Assessment Project and Presentation: Students will work in groups to prepare a risk assessment document and deliver a PowerPoint presentation on this risk assessment to the class. Supervised class time on select Thursdays will be allotted for working on group projects, although it is likely that some group and individual work for these projects will need to be completed outside of class time. A detailed assignment sheet and rubric will be available on the Canvas site under Module 1, Week 1.

Discussion/Participation:

Weekly paper discussions are only fruitful if students adequately prepare with questions to discuss based on the day's assigned material (you must read assigned papers before class). Likewise, Q&A panels with experts are only productive if students ask thoughtful questions. Students will earn points for contributing to discussions and participating in Q&A panels. Links to assigned weekly readings will be available in Canvas.

Attendance:

Although the course is offered online, lectures are delivered live. The course is designed so students will benefit most from attending during each class period, as in a

traditional face-to-face course. Attendance will be taken during 12 class meeting periods across the semester. On those days, students will receive 10 points for each day they are in attendance the entire class period, for up to a total of 100 points.

Points and Final Grade:

Points:

Lecture Exam	100 pts.
Quizzes (10)	100 pts.
Extension Document	100 pts.
Risk Assessment Document	100 pts.
Risk Assessment Presentation	100 pts.
Discussion/Participation	100 pts.
Attendance	100 pts.
Total Points	700 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 the exam and quizzes are not curved.

Class Schedule

<u>Week</u>	<u>Dates</u>	<u>Topics</u>
1	W 2 Sep	Course introduction, student introductions, Zoom etiquette Project Overviews
	Th 3 Sep	<i>Assignment: read invasion terminology document, take quiz 1</i> Quiz 1: Invasion terms, complete before class Discussion: Defining invasive species, terms Lecture: Invasion Basics Assign topics for EDIS documents, risk assessments
2	W 9 Sep	Lecture: Wildlife Trade <i>Assignment: read trade paper, take quiz 2</i>
	Th 10 Sep	Quiz 2: Trade paper, complete before class Discussion: Wildlife Trade Q+A w/ Dr. Christina Romagosa, UF
3	W 16 Sep	Lecture: Risk Assessments (Dr. Jeff Hill) <i>Assignment: read agencies paper/document, take quiz 3</i>
	Th 17 Sep	Extension Document annotated bibliographies due Quiz 3: Agencies paper, complete before class Lecture: Invasion basics, agencies, CISMAs (SAJ) Discussion: State and Federal Agency Roles Q+A: w/ Kristen Penny Sommers, FWC; Su Jewel, USFWS
4	W 23 Sep	Lecture: Herpetofauna Diversity-Amphibians

- Th 24 Sep *Assignment: read amphibian paper, take quiz 4*
Risk Assessment annotated bibliographies due
Quiz 4: Amphibian paper, complete before class
 Supervised Project Time
- 5 W 30 Sep Lecture: Herpetofauna Diversity-Reptiles
Assignment: read reptiles paper, take quiz 5
 Th 1 Oct **Quiz 5: Reptile paper, complete before class**
 Supervised project time
- 6 W 7 Oct Lecture: Case Study-Cane Toad
Assignment: read cane toad paper, take quiz 6
 Th 8 Oct **IFAS Extension Document Draft 1 Due**
Quiz 6: Cane toad paper, complete before class
 Discussion: Cane Toads
 Q+A w/ Dr. Sean Doody, University of South Florida
 Supervised project time
- 7 W 14 Oct Lecture: Case Study-Brown Treesnake
Assignment: read BTS paper, take quiz 7
 Th 15 Oct **Peer review of IFAS Extension Document due**
Quiz 7: Brown treesnake paper, complete before class
 Discussion: BTS
 Q+A w/ Dr. Shane Siers, USDA APHIS WS
 Supervised project time
- 8 W 21 Oct Lecture: Case Study-Big Lizards:Tegu, Nile Monitor (SAJ)
Assignment: read tegu paper, take quiz 8
 Th 22 Oct **Risk Assessment draft 1 due**
Quiz 8: Tegu lizards paper, complete before class
 Discussion: Big Lizards
 Q+A w/ Dr. Todd Campbell, University of Tampa
 Supervised project time
- 9 W 28 Oct Lecture: Case Study-Burmese Pythons (NMC)
Assignment: read Burmese python paper, take quiz 9
 Th 29 Oct **Peer review of Risk Assessment due**
Quiz 9: Burmese python paper, complete before class
 Discussion: Burmese Pythons
 Q+A w/ Dr. Bryan Falk, USGS
 Supervised project time
- 10 W 4 Nov Lecture: Case Study-American Bullfrog/Cuban Treefrog
Assignment: Read Cuban treefrog paper, take quiz 10
 Th 5 Nov **Quiz 10: Cuban treefrog paper, complete before class**
 Discussion: Cuban Treefrogs/American Bullfrogs

Q+A w/ Dr. Jorge Valdez Villavicencio, Fauna del Noroeste, A.C.
Supervised project time
Assignment: Read Florida's introduced herps paper, take quiz 11

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| 11 | W 11 Nov
Th 12 Nov | UF Holiday—No class
Quiz 11: FL introduced herps, complete before class
Lecture: Florida's Introduced Herps
Discussion: Florida's Introduced Herps
Supervised project time |
| 12 | W 18 Nov
Th 19 Nov | IFAS Extension Document final draft due
Supervised project time
Lecture Exam during scheduled class period—NO ZOOM meeting today, complete the exam |
| 13 | W 25 Nov
Th 26 Nov | Thanksgiving Holiday – No class
Thanksgiving Holiday – No class |
| 14 | W 2 Dec
Th 3 Dec | Group Project Presentations (x2), Feedback and Discussion
Group Project Presentations (x3), Feedback and Discussion
Lecture exam review/discussion |
| 15 | W 9 Dec
Th 10 Dec | Course evaluation, open discussion
Risk Assessment final draft due
Reading Day-No Class |

University of Florida Policy Statements

Grades and Grade Points

For information on current UF policies for assigning grade points, see:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

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/UGRD/academic-regulations/attendance-policies/>

Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. [Click here to read the Honor Code.](#) Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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 Resources

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

University Police Department: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#)

Academic Resources

E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information.](#)

On-Line Students Complaints: [View the Distance Learning Student Complaint Process](#)

Services for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. [Click here to get started with the Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Online Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. [Click here for guidance on how to give feedback in a professional and respectful manner](#). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. [Summaries of course evaluation results are available to students here](#).

Zoom Recordings—Student Privacy

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.