

WIS 4545
Ecology and Management of Wildlife Invasions

Summer A Semester 2005

University of Florida—IFAS Plant City Campus and Gainesville Campus

- Instructors:** Plant City: Dr. Steve A. Johnson, johnsons@wec.ufl.edu,
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- Gainesville: Dr. Kenneth L. Krysko, kenneyk@flmnh.ufl.edu
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- Office hours:** Dr. Johnson: Tuesdays 1:30-4:30 p.m., or by appointment
Dr. Krysko: Tuesdays 8:00-11:00 a.m., or by appointment
- Office location:** Dr. Johnson: IFAS—Plant City Campus (HCC), Florida Studies Bldg.,
Rm 110
Dr. Krysko: Florida Museum of Natural History (FLMNH), 257 Dickinson
Hall
- Lecture/Lab Schedule:** Tuesdays 5:30-8:30 p.m., Thursdays 5:30-9:00 p.m.
- Course Text:** *Strangers in Paradise: Impact and Management of Nonindigenous
Species in Florida*; D. Simberloff, D.C. Schmitz, and T.C. Brown
(editors), Island Press

Course description, objectives, and format :

This course will focus on the ecology and management of introduced and invasive wildlife species and their effects at the community and ecosystem levels in Florida and elsewhere. Topics will include traits of invasive and introduced species, environmental characteristics that promote invasions, management efforts for invasive species, use of introductions as a management strategy in conservation, and detailed analysis of case studies. Ecology and identification of nonindigenous amphibians and reptiles, especially species in Florida, will be emphasized.

By the end of the semester, students should understand how nonindigenous wildlife get to Florida and elsewhere and their impacts on native species and ecosystems. Students will also understand various approaches applied to manage invasive wildlife species, be able to identify exotic herpetofauna in the field and lab, and develop a working knowledge of the natural history of exotic amphibians and reptiles in Florida.

Information delivery will consist of lectures, supplemental handouts, class discussion, assigned readings, and field outings. There will also be several laboratory sessions where students will work with preserved amphibians and reptiles to learn how to identify species based on external characteristics. Attendance will not be taken, but students are required to attend lectures, participate in discussions, and attend the field outings.

Exams and assignments :

Exams: There will be 2 exams given during the course. 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), supplemental materials, and assigned readings in Simberloff, Schmitz, and Brown. The lab exam will be in lab practical format. Students will move among numerous stations, identifying preserved specimens and answering natural history questions at each station.

EDIS Documents: Students will work in teams to develop an informational brochure highlighting one of Florida's nonindigenous species of reptiles. Instructor approval is required to ensure that there is no overlap among species chosen by the students. The ultimate goal will be to publish each of these "Fact Sheets" as a peer-reviewed document via the IFAS Electronic Data Information Source (EDIS) system. Students will work closely with the instructors to develop the text and figures for each sheet. As such, the instructors will be listed as coauthors on each of the documents. Further details will be given in class.

Points and Final Grade:

| | | |
|---------|---------------------|----------|
| Points: | Lecture Exam | 100 pts. |
| | Lab Exam | 100 pts. |
| | EDIS Document | 100 pts. |
| | Class Participation | 100 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 exams are not curved.

Class Field Outings:

In our opinion, the best way to learn is via first-hand experience. To expose students to a variety of nonindigenous species of plants and animals there will be two field outings during the course. Students are strongly encouraged to attend all of the outings since class participation comprises 25% of the final course grade.

Field Outing 1) Weekend trip to southern Florida on June 3-5. We will travel to Key Biscayne (and the surrounding area) in Miami to observe and collect exotic herps.

Field Outing 2) Daytrip to Wekiva Springs State Park to see Cuban Treefrogs and discuss management of exotics in the park. We also will visit to a site in Sanford where a population of exotic lizards (*Agama agama*) exists.

Class Schedule for Ecology and Management of Wildlife Invasions

| <u>Week</u> | <u>Dates</u> | <u>Topics</u> | <u>Assigned Readings*</u> |
|---|---------------------|--|----------------------------|
| 1 | Tu-10 May (SJ) | Course introduction; Background, economics and biology of invasions | pp. 3-17 |
| | Th-12 May (KK, SJ) | Nonindigenous herpetofauna in Florida EDIS publication discussion | pp. 123-138 |
| 2 | Tu-17 May (GL, SJ) | Guest lecture—Dr. T. Campbell: Anoles and Monitor lizards Nonindigenous herpetofauna: invasion pathways | |
| | Th-19 May (SJ) | Case studies of exotic herps from a global perspective: Brown Tree Snake | |
| 3 | Tu-24 May (KK, SJ) | Identification of nonindigenous herpetofauna in Florida, Lab time | |
| | Th-26 May (KK, SJ) | Lab time | |
| 4 | Tu-31 May (KK, SJ) | Lab time, discuss weekend field outing | |
| | 👉Th-2 June (KK, SJ) | Lab Exam, Nonindigenous birds in Florida | pp. 139-156 |
| 👉Weekend field outing to south Florida: June 3-5 (details will be discussed in class) | | | |
| 5 | Tu-7 June (GL, SJ) | Guest Lecture—Dr. J. Hill: Nonindigenous fishes in Florida Nonindigenous mammals in Florida | pp. 109-122 pp. 157-186 |
| | Th-9 June | Class outing Wekiva Springs State Park/ <i>Agama</i> site in Sanford | |
| 6 | Tu-14 June (GL, SJ) | Guest Lecture—Dr. B. Overholt: Biocontrol of invasive plants Nonindigenous plants in Florida | pp. 245-263 |
| | 👉Thr-16 June | Lecture Exam | |

*Supplemental reading assignments and reference materials will be distributed in class/lab.

👉Exam or assignment due dates

Policies on academic honesty, UF counseling services, and software use

UF Academic Honesty

As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals, which interfere with their academic performance. These resources include:

1. University Counseling Center, 301 Peabody Hall, 392-1575, personal and career counseling;
2. Student Mental Health, Student Health Care Center, 392-1171, personal counseling;
3. Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual counseling;
4. Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

UF Computer Software Usage

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.

Students requesting classroom accommodation must first register with the Dean of Students Office in Peabody Hall. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.