

Seminar in Herpetology: Colloquium on Climate Change

**ZOO 6927
(section 082B)
Spring 2016**

Department of Biology
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Instructors:

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Credits: 2

Class meetings: Wednesday, periods 5-6, 222 Carr Hall

GENERAL CLASS INFORMATION:

Course Summary

The structure of this seminar course will involve critiques and discussions of key, integrative papers published recently on the subject of climate change. Our examination of literature will focus principally on how climatic changes are affecting amphibians and reptiles, but the integration of topics will remain broad and will include considerations of other taxa in addition to generalized phenomena, predictive models, and both direct and indirect impacts of climate related to past, present, and predicted future events.

The instructors will provide a list of (and access to) key papers from which students will choose a topic and respective paper for presentation to the class. Alternatively, students may also propose their own topic based on a single key paper, pending approval of the instructors. Each student is expected to prepare and deliver a presentation on his/her topic, with emphasis on a particular publication, and this should include a summary and critique of the paper, by means of Powerpoint, followed by leading a discussion of the paper and the critique that was presented.

Some ***potential topics*** related to climate's effects on amphibians and reptiles include:

Paleontological perspective on climate and evolution

Patterns of species richness and diversity, and their hypothesized causation

Molecular phylogenetic perspective on climate and evolution

Species distributions as affected by gradients of elevation and latitude

Biophysical ecology and modeling of animal landscapes

How climate, topography, and vegetation interact with distribution, physiology, reproduction, and diseases of ectothermic vertebrates

Mechanistic calculations of animal energetics, behaviors and food webs

Extinctions—past, present and future

Models and empirical tests for extinction rates

Model predictions for climatic change and ecosystem responses

The goal

The overall goal of this seminar is for students to experience a relatively informal but in-depth, critical, and spirited examination and discussion of current opinions, hypotheses, and ideas related to the subject of “climate change” as applicable to amphibians and reptiles. This course should broaden your intellectual experience and growth as a graduate student. This course should be interesting, inspiring, and fun! Diversity of opinions, approaches and priorities with respect to both science and conservation will be respected and encouraged.

Required Course Materials

There is no required textbook or other materials. Students will be expected to obtain respective pdf copies of papers that will be discussed, and the majority of these will be provided by the instructors.

Information about you

Please deliver during the second week of classes a single page document that contains the following information: Name, Department or Program, Masters or Doctoral aspiration, major or specialization, Email address, career goals, and a brief statement of what interests you most. As an optional request, please include on the page a picture of yourself, e.g. photocopy of the small photo that is on your driver's license. This will help the instructors get to know students early.

Grading: Grades will be based primarily on students' presentation of a topic, participation in discussions, and attendance.

Illness: If you are ill with an infectious or contagious illness such as cold or flu, you should ***not*** attend class. If you have a fever associated with any illness, you should ***not*** attend class until you have been free of the fever for at least 24 hours. The instructor reserves the right to ask any student to leave the classroom at any time if there is a reasonable likelihood that the student's presence in the classroom places other students at substantial risk of infection.