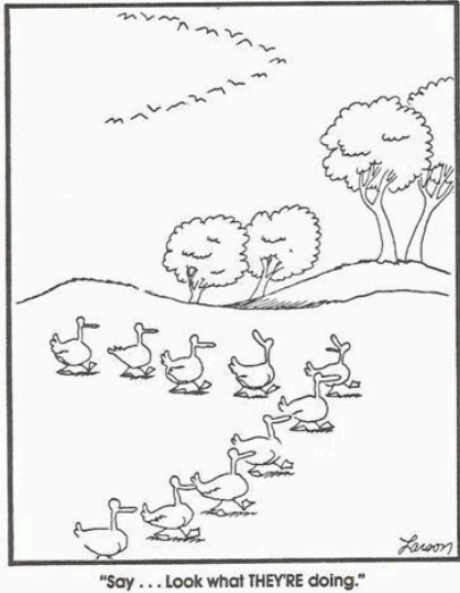


# SEMINAR IN ECOLOGY (BIOL 669-002)

Behavioral Ecology  
Spring 2019

Please contact instructor if interested in enrolling



## **Instructor**

Keith Sockman: kws@unc.edu  
Office Hrs: by appt.  
GSB 2260

## **Initial Meeting Time and Location**

10:00 a.m., Jan 14, 2019, Genome Sciences 2101

## **Website**

You can access the course website through Sakai.

## **Synopsis**

Behavior is "the internally coordinated responses (actions or inactions) of whole living organisms (individuals or groups) to internal and/or external stimuli . . ." (Levitis et al. 2009). Behavior ranges from mate attraction, egg production, and parental care to herd aggregation, navigation, and predator defense. Behavior is uniquely positioned at the interface between organism and environment and therefore can only be understood completely in the context of ecology. In this seminar, students will lead discussions of the primary literature on behavioral ecology. We intend to discuss a wide range of topics including ultimate and proximate control; behavioral plasticity; innate and learned behavior; and the neuroendocrine, developmental, and evolutionary causes of behavior. Because consideration of the natural ecology of organisms is a major goal of this seminar, we will not examine studies of behavior with minimal context in natural history and applied behavior that focus primarily on animal welfare. We will examine literature from a diversity of biological disciplines, primarily from the students' own choosing.

## **Organization and Format**

The format of this seminar will be that of an "enhanced" journal club. Students will lead discussions on recent or classical primary literature they choose with instructor guidance. They will also participate in the critical examination of the literature they and other students present. Two weeks prior to each of their pre-determined (during our first meeting) dates on which they lead discussion, each student will e-mail the instructor the details of one or two proposed papers

from the primary literature on any topic in behavioral ecology that he or she wishes to lead. The instructor will correspond with the student regarding the suitability of the paper, sometimes requiring the student to come up with an alternative. By one week prior to leading the discussion, the student must have been given approval by the instructor and post the reading on the course Sakai website, making it available for all students in the course and the instructor to read. By 24 hours prior to discussing the paper, each non-leading student will post comments or questions about the reading on the website discussion forum. These postings need not be extensive but, in a short paragraph, should be original and reflect a careful reading of the paper(s). Prior to each meeting, the leading student will print copies of these postings in order to facilitate discussion.

Although we will rely on the course website for some parts of this seminar (see above), in order to promote active participation, the use of electronics (such as laptops and tablets) will not be permitted in class.

For a final exam we will discuss both new insights on animal behavior that emerge from the semester's readings and broad syntheses that we can apply to the readings and the field as a whole.

### **Grading**

Your semester grade will be based on your class presentations, in which you lead discussions (15%), on your participation in others' presentations, including your weekly postings on the reading (see above) (75%), and on the final (10%).

### **Prerequisites**

For undergraduates, students must have passed BIOL 201 (or its equivalent) and have instructor approval to enroll and remain in the course.

### **Tentative Schedule**

Week 1 (Jan 14): Orientation, seminar overview, and settle on some presentation dates  
Weeks 2-8 (Jan 21-Mar 4): Student-Led Discussions  
Week 9 (Mar 11): Spring Break  
Week 10-14 (Mar 18-Apr 22): Student-Led Discussions  
Week 15: Final