**Read: Chapter 51 (PLEASE READ for more examples and experiments)**

**Videos:** *Animal Behavior, Behavior & Natural Selection***,** *Mechanisms of timing and control*

**Behavioral Ecology Objectives:**

1. Explain the difference between proximate and ultimate causation.
2. Why does behavior require communication?
3. How are the terms signal and communication related?
4. Compare and contrast kinesis and taxis. Use examples.
5. Explain the difference between innate and learned behaviors? Provide examples.
6. How can natural selection act on innate and learned behaviors?
7. How can information can be communicated between organisms using the following:
   1. Territorial marking in mammals
   2. Bee dances
   3. Bird songs
   4. Pack behavior
   5. Schooling or flocking
   6. Coloration in flowers and animals (aposematic coloration)
   7. Colonial behavior
8. How can environmental cues trigger behaviors that are related to reproduction, natural selection and survival? Give Examples.
9. What is the relationship between migration and genetic control?
10. Explain the difference between operant, classical, habituation and spatial learning.
11. Describe how social/cooperative behaviors contribute to survival of a population:
    1. Pack behavior in animals
    2. Herd, flock and schooling behavior in animals
    3. Predator warning
    4. Colony and swarming behavior in insects
12. Explain how fight or flight response, predator warnings (mimicry), protection of young and avoidance responses can trigger behavior between organisms.
13. Explain how natural selection can result in the increased survival and reproductive success in the following behaviors:
    1. Parent and offspring interactions
    2. Migration patterns
    3. Courtship and mating behaviors
    4. Foraging in bees and other animals
    5. Avoidance behavior to electric fences, poisons or traps
14. Why would an organism behave in a way that reduces its individual fitness? Give several examples. What is this behavior called?
15. Explain how plants undergo phototropism and photoperiodism. (different chapter)