

## Lecture #14 – An Insect's Life

- I. Hexapoda Characteristics
  - A. **Tracheal Respiration**
    - 1. **Spiracles**
  - B. **Malpighian Tubules**
    - 1. Excretory function
- II. Hexapoda (more than 1,000,000 species)
  - A. Insecta Synapomorphies
    - 1. Loss of abdominal legs
    - 2. Thoracic segment divided into **three**
    - 3. **Labium**
  - B. Humans and Insects
    - 1. Economic Pests
    - 2. Health Pests
  - C. Success of Insects
    - 1. Segmentation
    - 2. Differentiation of Mouthparts
    - 3. Differentiation of Antennae
    - 4. Differentiation of Legs
    - 5. Wings & Flight
    - 6. Metamorphosis
      - a. Direct development
      - b. Incomplete metamorphism
      - c. Complete metamorphism

Reading: Chapter 13 – pages 255-276.

Questions: Page 277 – 18 (labrum, labium, haltere), 19, 20, 21 (respiration, reproduction), 22, 23, 25, 26, 27 and 28.