

# Mathematical Biology — Evolutionary Genetics

## Introduction to Biological Evolution

### Homework Set 1

1. Give definitions of each of the following. You should be able to find all of the terms in a freshman-level biology text.
  1. evolution
  2. natural selection
  3. artificial selection
  4. directional selection
  5. stabilizing selection
  6. diversifying selection
  7. catastrophism
  8. uniformitarianism
  9. adaptation
  10. differential reproduction
  11. speciation
  12. convergent evolution
2. You are a *Homo sapiens* (that is, you are of the genus *Homo* and the species *Homo sapiens*). What are your kingdom, phylum, subphylum, class, order, and family?
3. Darwin's theory of evolution is sometimes popularly called "survival of the fittest." Is this a reasonable characterization?