

**Study Questions and Reading Guide: Kareiva & Marvier, Chapter 2**  
**Conservation Biology**  
**Spring 2011**

**Reading:** This chapter is a good overview but we will need to add quite a bit to it in class. I am assuming that you either already know or can learn on your own most of the concepts below. If you have questions about anything that is not covered in class, please ask.

**I. Terms to know:**

species recovery	Biological, morphological and phylogenetic species concepts	subspecies	cryptic (sibling) species
Endemic species	biome	ecoregion	

**II. Questions:**

1. What is biodiversity and explain what is meant by calling it a hierarchical concept.
2. Be able to explain in detail the arguments for and against the red wolf being a species. Why are these arguments important (or are they)?
3. Notice that there are no fully satisfactory ways to estimate the number of species. Why is this a problem.
4. Why do you suppose that there are more species present now than at any other time in the Earth's history?
5. What are the three main factors that predispose a species to extinction?
6. What does it take to establish that a species is extinct? Why do many supposed extinctions turn out to be incorrect? Why are many extinctions probably missed?
7. Why are the values for  $z$  in the species area curve often high for various taxa that inhabit oceanic islands?
8. What are the main advantages and weakness of using the species-area relationship to estimate biodiversity changes?
9. Explain the indicator concept. What is the danger of using indicators?
10. Explain and critique the biodiversity intactness index (BII).
11. What is functional extinction and why is this an especially important concept that is not appreciated by the public at large?
- 12 Be ready to discuss questions 3-5 at the end of the chapter.