

Biogeography Lecture Outline

1. Biogeography: Ecobiogeography and historical
2. Types of Distribution
3. Six FLORISTIC KINGDOMS
4. Dispersal-vicariance analysis (DIVA)
5. Assumptions of DIVA
6. Phylogeography
7. Comparative phylogeography

Phylogeny and Conservation Lecture Outline

1. Biodiversity conservation: Does phylogeny matter?
2. Aims of Conservation
 - Maximize biodiversity (present)
 - Maximize the evolutionary potential or the diversity of habitats (Future)
3. Measuring Biodiversity Using Phylogenetic Data
 - Maximize the number of clades
 - Maximize the degree of uniqueness of clades
4. Phylogenetic diversity indices I and W
5. Case studies on estimating Phylogenetic diversity indices
6. Priority Area Analysis using phylogenetic diversity index W

My lectures on (1) conserving species (Chap 4, Primack), (2) conserving taxa (Chap 4, Primack), and (3) Sustainable Development (chap. 5, Primack)

Conserving Species Lecture Outline

1. Ex Situ Preservation
2. Limitations of ex situ conservation
3. IUCN Conservation Categories of Species

4. IUCN Refined & Quantitative Definitions (1994)
5. Assignment of Categories
6. A Critically Endangered Species
7. The Nature Conservancy
8. Fig. 3.28
9. The U.S. Endangered Species Act (ESA) of 1973
10. Problems of the ESA
11. Controversies on the Act
12. International Agreements
13. CITIES
14. Problems with CITIES

Conserving Taxa Lecture Outline

1. Conservation Efforts: (1) species, (2) areas and communities
2. Conserving species by conserving populations
3. Small populations go extinct more easily (Fig. 3.1)
4. Problems of Small Populations
5. Extinction Vortices
6. Population Viability Analysis (PVA)
7. Establishment of New Populations
 - (1) Reintroduction
 - (2) Augmentation
 - (3) Introduction

Sustainable Development Lecture Outline (Chap 5, Primack)

1. What is sustainable development?
2. International Approaches
3. The Earth Summit
4. Major Challenges for Conservation
5. The role of conservation biologist