

An Introduction to Animal Behavior and Migration

I. INTRODUCTION TO ANIMAL BEHAVIOR 15%

A. What Is an Animal, and What Is Behavior?

1. *The Definition of “Animal”*
2. *The Diversity of Animals*
3. *Behavior*
4. *Ecology*
5. *Taxonomy and the Kingdom of Animalia*
 - a. Understanding Phylogenetic Trees
 - b. The First Animals
 - c. How Animals are Classified
6. *Survival of the Fittest*
 - a. The Basics of Evolution
 - b. The Theory of Natural Selection
 - c. The Limitations of Evolution
 - d. The Evolution of Behavior

B. The History of Animal Behavior: Past to Present

1. *The Pioneers of Ethology*
 - a. Charles Darwin
 - b. The “Fathers” of Ethology
 - c. Modern Animal Behavior Research
2. *Tinbergen’s Four Questions*
 - a. Function (or Adaptation)
 - b. Evolution (or Phylogeny)
 - c. Causation (or Mechanism)
 - d. Development (or Ontogeny)

C. How Behavior is Measured and Studied

1. *Observational Studies*
2. *Laboratory Studies*
3. *Ethograms*
4. *Using Genetics to Understand Behavior*
 - a. Comparison of Structures

II. THE BIOLOGY OF ANIMAL BEHAVIOR 25%

A. The Nervous System of Animals

1. *Vertebrate Animals*
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