Bio. 3302 Introduction to Evolution
Study Guide
Lecture 2 – History of Evolutionary Thought

Termiology

Aristotle
binomial nomenclature
catastrophism
Copernicus
Cuvier
creation myth
domestication
essentialism
extinction
fossil record
Great Chain of Being
Hutton
idealism (essentialism)
Inheritance of Acquired Characters
Lamarck
Linnaean hierarchy
monotheism
Plato
polytheism
Redi
Renaissance
rock strata
shamanism
spontaneous generation
transformation
uniformitarianism

Questions:

1. Why are the Classical Greek philosophers considered important in the development of biological science and evolutionary ideas?

2. What factors might have contributed to the development of philosophy, science, and math in ancient Greece?

3. What is Platonic idealism?

4. What is the connection between idealism (essentialism) and the description and classification of organisms?

5. Who was Aristotle and what did he contribute to biology?

6. Why was progress in biology and other sciences retarded in the middle ages? How were the Greek philosophers viewed during this time?

7. What is the Great Chain of Being (Scale of Nature) and how did it influence the western view of nature?

8. What did Linnaeus contribute to biology? What were his views on evolution?

9. How did progress in taxonomy (systematics) stimulate a new interest in species and evolution?

10. What did Georges Buffon contribute to the development of evolutionary thinking?

11. Describe the importance of Jean Baptiste de Lamarck and his theory of the inheritance of acquired characters?

12. Who was Georges Cuvier? Although he was a great anatomist and student of fossils, what were his beliefs regarding evolution?

13. What is Uniformitarianism, and who were its greatest proponents in the field of geology?