

which is of the least value in giving these bodies of fact any sort of scientific coherence and unity. In other words, the working hypothesis works and is therefore acceptable as truth until overthrown by a more workable hypothesis. Not only does the hypothesis work, but, with the steady accumulation of further facts, the weight of evidence is now so great that it overcomes all intelligent opposition by its sheer mass. There are no rival hypotheses except the outworn and completely refuted idea of special creation, now retained only by the ignorant, the dogmatic, and the prejudiced."

-- Horatio Hackett Newman, *Evolution Genetics and Eugenics* (Chicago: The University of Chicago Press, 1956), p. 51.

### III. EVIDENCES ADDUCED FOR EVOLUTION

"There are evidences of evolution in the grouping of animals into phyla, classes, orders, families, genera, species, varieties, and races; in the homologies that exist in general structure and in particular organs between different groups of animals and plants; in the orderly process of ontogeny or embryonic development of the individual; in actual blood relationship, based upon chemical reactions; on the succession of extinct animals and plants found as fossils imbedded in the geologic strata; in the present geographical distribution of the various groups of animals and plants, in the light of data derived from a study of geological changes, and finally, in experimental evolution, which involves the observation under experimental control of changes in organisms and the origin of new varieties or elementary species."

-- Horatio Hackett Newman, *Evolution Genetics and Eugenics* (Chicago: The University of Chicago Press, 1956), p. 51.

#### A. The Evidence from Classification (Taxonomy)

##### 1. Origin of the Taxonomic Nomenclature

Karl von Linne (Linnaeus) (1707-1778) -- a Swedish naturalist, called "the father of taxonomy" -- constructed a system of classifying animals and plants, as a convenience for cataloging and ready reference, and assigned descriptive Latin names to the various kinds of organisms. He also introduced the system of binomial nomenclature, the practice of describing a plant or animal by both its generic and its specific name.

Example: *Apis mellifica* Linnaeus 1758

The present system of zoological nomenclature dates from Linnaeus' *Systema Naturae* Tenth Edition (1758). The International Commission on Zoological Nomenclature establishes rules as an authoritative code in naming taxonomic divisions. The present system of botanical nomenclature dates from Linnaeus' *Species Plantarum* Edition 1 (1753). The International Botanical Congresses establish authoritative rules as a guide in forming taxonomic titles.