

The Fundamental Unit of Biological Taxonomy

by Chard Berndt

In the fifth century B.C., Greek philosophers conceptualized indivisible, solid “atoms” as the building blocks of matter. Not until the early 1800s did physicists formalize an atomic theory, and yet relatively soon afterward (1897), J. J. Thomson discovered the electron. Ernest Rutherford’s gold foil experiment (1911), in addition to showing that atoms consisted mostly of empty space, led the way for characterizing the proton in 1919, and Rutherford’s colleague James Chadwick (1932) discovered the neutron. Today, a score of particles are described, either auxiliary to or constituent of these traditional three particles.

A Fundamental Concept Endures

So if the Greek philosophers were wrong, why is the concept of the atom still indispensable in understanding and classifying matter? How is it that one of science’s greatest accomplishments, the Periodic Table of the Elements, uses the atom as its basic unit nonetheless? Why do students still learn of the atom as central, extrapolating upward to its combinations (molecules and mixtures) and downward to its divisions (sub-atomic particles)? The reason is this: though mistaken concerning the atom’s indivisible nature and solidity, the Greeks were correct in their basic assumption that a unique building block exists for each type of matter. They guessed at adjectives (“indivisible” and “solid”), yet established the concept well with the noun (“building block”). That is to say, the atom is a useful classifying unit of matter because it is, by definition, that building block. Regardless of how the atom would eventually reveal its makeup, it would always be defined as the fundamental unit of something material—the unique component that brings something its inimitable set of properties.

The Deficiency of “Species” as a Fundamental Unit

Does biology also employ a unit of classification? Carolus Linnaeus certainly had such intentions when instituting the binomial nomenclature system (genus and species). Historically, the Linnaean species were regarded as groupings separated by limited expressions, and described as immutable, constant, essential, fixed, and of separate types or kinds.¹ Unfortunately, Linnaeus did not define his term’s parameters well (constant and immutable in *what?*), or anticipate the extravagance of natural diversification. As such, new expressions of a given species would eventually become named as additional species, rather than as expressions of the same. Various definitions have filled Linnaeus’ criterion void, and now biologists typically regard a species as a

population that reproduces freely under natural conditions.² By analogy, this would be like regarding the electron as the updated atom, and later the quark (of which protons and neutrons are composed), as yet a better atom, and so on. Today, for example, one essential type—the beetle—is described in over 300,000 species, such that the concept of “beetle” itself must be represented at a level more inclusive than the species tier. If the taxonomic intention is to identify types possessing a limited range of expressions, then “species” is no longer practical as the fundamental unit of biological taxonomy.

The “Kind” Fulfills the Original Intention of “Species”

The vital omission in the definition of species was that of common *original* ancestry. The biblical Creation account, found in Genesis 1-2, uses the Hebrew word *miyn* ten times, clearly in the context of offspring, as in the following:

So God created the great creatures of the sea and every living and moving thing with which the water teems, **according to their kinds [*miyn*]**, and every winged [creature] **according to its kind [*miyn*]**. And God saw that it was good. God blessed them and said, **“Be fruitful and increase in number** and fill the water in the seas, and let the birds increase on the earth.” (Genesis 1:21-22, NIV, brackets and emphasis added)

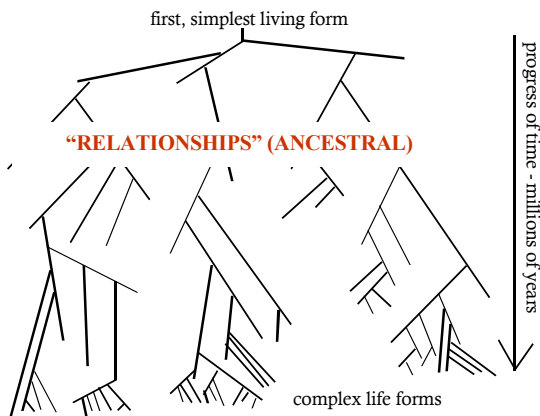
The command to “be fruitful and increase” indicates that the original Creation was not initially filled, but that each original Kind³ (whether composed of one male-female pair, as specified among mankind, or of multiple pairs, which may be suggested of other Kinds) commenced the filling. Each “original Kind,” so called in the Biblical Classification of Life⁴ system, is known as an “archaebaramin” in the nomenclature of baraminology.⁵ The original Kind and all offspring together (extant or extinct) are known simply as a Kind, or “holobaramin.”

In addition to its ten mentions in the Creation account, the Kind concept also exhibits importance in that 1) Adam assigned names to original Kinds, and 2) God preserved creatures through the Great Flood according to Kinds. (Perhaps those surviving Kinds could be called “original post-Flood Kinds,” or “postdiluvial-archaebaramins.” To my knowledge baraminology has not established a term for this.) Clearly, the Kind should define the tier that divides the *before* and *after* of Creation, separating God’s instant disbursements of Kinds from the subsequent passage of time and variation among those Kinds. The Kind is therefore worthy of recognition as the fundamental unit of biological taxonomy.

Incompatibility of the “Kind” and the Linnaean Scheme

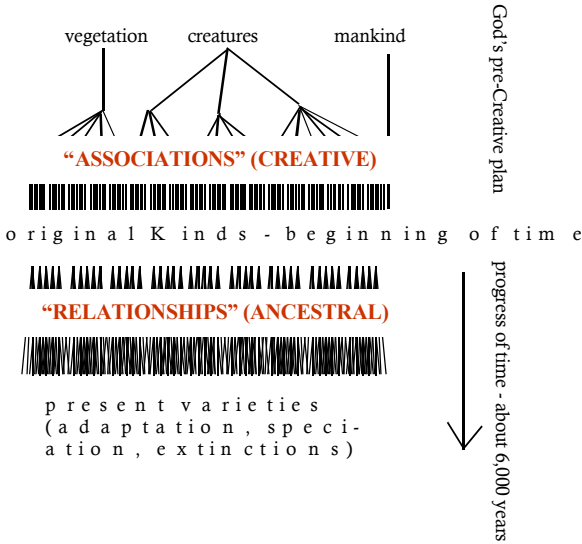
So, can this tier be found in the present classification system—does any hierarchical level provide the concise catalog of Kinds? If the species are too narrow, might the Kinds be found instead among the genera, or perhaps among the more inclusive families, or even among orders, classes, or phyla? Unfortunately, no one level provides a place for a Kind catalog. If the Kind tier would be traced across the present classification scheme, it would jump around haphazardly. This is largely because evolutionists have focused on imagined large-scale continuities (to support the idea of one or several common ancestors for all present life), rather than on recognizing empirical discontinuities (which help mark out the Kinds). Thus the essential tier in a biological taxonomy—the Kind—is obscured, and inexpressible via the Linnaean scheme.

Whether evolutionists regard one common ancestor for all life (monophyletic), or several common ancestors (polyphyletic), the idea is basically the same: evolutionists see time itself as the Creator, and all connections (or at least all major ones) as ancestral relationships. The diagram below (presented upside-down from usual, for comparison with the next), illustrates the concept using a monophyletic tree:



Pre- and Post-Creative Clarity in the Use of “Kind”

The BCL scheme, on the other hand, makes a distinction between *super*-Kind associations (of creative structuring prior to the Creation), *inter*-Kind associations (each disbursement of multiple original Kinds), and *intra*-Kind relationships (of ancestry, over the ensuing course of time). Shown below is an abbreviated version of the BCL scheme⁶.



Summary and Conclusions

The essential building block concept of the atom endured despite its discovered divisions, leading to an orderly scheme known as the Periodic Table of the Elements. So too, an orderly biological classification requires a fundamental unit of immutability. That unit is the biblical Kind, or holobaramin, encompassing all extant and extinct organisms of common descent. By employing the Kind tier in a classification scheme, one makes a clear distinction between creative associations (among Kinds) and ancestral relationships (within Kinds).

At the 2001 Discontinuity Conference (convening seventy persons around the topic of baraminology), several presenters suggested that biological taxonomy might arrive at its own periodic scheme, and even allow for a degree of prediction (e.g. looking for expected extinct forms). If so, I imagine that rows and columns would represent stepping values of some “x” and “y” characteristics, and the result would be a tabulation of various cross-baramin commonalities, likely derived at the cellular level. This would be remarkable, however, I do not expect that such a table will emerge at the typological level, when examining whole organisms. I have yet to formalize my thoughts as to why the classification of life would not parallel the classification of matter itself other than in its call for a fundamental unit. I suppose my hesitation comes from believing that the Bible has already provided a satisfactory organizational scheme, associating organisms according to God’s creative disbursements. Baraminology will inevitably demand some type of super-baramin association scheme unique to the prevailing Linnaean system. I suggest that the BCL scheme be given ongoing consideration and refinement alongside attempts at empirical periodic associations.

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¹ K. B. Cumming, "Patterns of Speciation," *Vital Articles on Science/Creation* "Impact" No. 215 (May 1991), <<http://www.icr.org/pubs/imp/imp-215.htm>> Accessed 27 August 2001.

² This definition leads to a virtually limitless "emergence" of new species; interestingly, though, this is not applied to the species *Homo sapiens*, even though people groups may show relatively greater genetic and geographical differentiation between them than do many species of creatures.

³ Since "kind" is used commonly to mean "sort" or "variety," I prefer to capitalize it when speaking of the biblical concept.

⁴ The Biblical Classification of Life, or BCL, is the taxonomic system developed in my book of the same name. The book can be ordered online in print and electronic editions at <<http://www.creationbydesign.com>>.

⁵ Dr. Kurt Wise established baraminology in 1990. It is a young-Earth creation model that applies biblical revelation to discontinuity systematics.

⁶ A complete version of this chart is available on page 127 of *Biblical Classification of Life*.