**Each After His Kind**

Baraminology

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**Genesis 1 (King James Version)**

- Things brought forth “after his kind”
  - Grass, herb yielding seed, fruit tree, great whales, every living thing that moveth which the waters brought forth abundantly, every winged fowl, the living creature, cattle, creeping thing(s), beast(s) of the earth,

- Things brought forth “after our likeness”
  - Man

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**Is the Genesis kinds equivalent to a species? How many described extant animal species are there?**

- Arthropoda 875,151
- Mollusca 50,000
- Platyhelminthes 12,200
- Roundworms 12,000
- Annelida 12,000
- Coelenterata 9,000
- Echinodermata 6,100
- Porifera 5,000
- Amphibia 4,780
- Mammalia 4,675
- Aves 9,702
- Reptilia 7,870
- Pisces 23,250

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**Frank L. Marsh**

- “Evolution, Creation and Science” (1944)
- Seventh Day Adventist
- Baramin – originally created kind, within which speciation can occur.

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**Dynamic Creation Model**

- Creation of “basic types” by direct creative action
  - “Ground types” / Original “kinds” / “Baramin”
  - These contain the necessary information for future speciation, i.e. no new information is made.

- Subsequent speciation by natural methods
  - Role of mutation and selection?
  - Over what length of time does speciation occur? Is it occurring today?
Natural Selection

“Natural selection can be viewed as a post-Fall stabilizing mechanism ... eliminating biological deviants and preserving better-adapted individuals”

(Wood & Murray, 2003, p. 31)

Evolutionary biology sees the “Tree of Life” as a central trend in the history of life.

Duane T. Gish

“We cannot be sure what defines a kind, yet we can be sure what the Bible means by one.”

Discontinuity Systematics

- Walter ReMine
- Electrical engineer & YEC
- Expanded upon (and renamed “baraminology” by Kurt Wise.

Todd Wood

“Currently, baraminology has been applied to dozens of groups, and the results of 66 baraminology studies are summarized and evaluated here. Though bias in group and character selection prevents firm conclusions, it appears at this time that Price’s suggestion that the family is an approximation of the ‘created kind’ may be correct.”

“The Current State of Baraminology”

http://www.creationresearch.org/crsq/abstracts/Abstracts43-3.htm
**Approximate Number of Vertebrate Families: 806**

- **Pisces** – 445
- **Amphibia** – 34
- **Reptilia** – 48
- **Aves** – 144
- **Mammalia** – 135

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**The Baraminology Study Group**

A *baramin* is a group that shares **continuity** (meaning that each member is continuous with at least one other member) and is bounded by **discontinuity**.

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**BSG: A Creation Biology Study Group**

- "[A]n affiliation of biologists and other researchers dedicated to developing a young-age creation model of biological origins."
- "[A] formal society of professionals in the biological and related sciences or theology who ... are Christians accepting the authority of Bible (i.e., Old and New Testament canons) in all areas. Thus, all members accept the taxonomic concept of 'created kind' or baramin."
- "The BSG organized to be a community for mutual encouragement and Christian fellowship to those researchers dedicated to discovering the Creator and the outworking of His design for the present living world. Our ultimate goal is to develop origin models that accommodate empirical data in a biblical framework of earth history through scientifically sound analysis of biological data and scholarly analysis of biblical texts."

[https://www.bryancon.org/bsg/aboutmain.html](https://www.bryancon.org/bsg/aboutmain.html)

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**Conferences**

- 1997 – Inaugural meeting at Bryan College
  - Todd Wood, Ashley Robinson, David Cavanaugh, Dave Fouts, Kurt Wise, and Neal Doran.
- 1999 – “Creation Biology for the 21st Century” (Liberty U.)
- 2001 – “Discontinuity: Understanding Biology in the Light of Creation” (Cedarville U.)
- 2004 – “Discovering the Creator” (Bryan College)
- 2005 – “A Grander View of Life” (St Andrews College)
- 2006 – “Exploring the History of Life” (Cedarville U.)
- 2007 – “All Creation Groans” (Liberty U.)
- 2008 – “Frontiers in Creation Research” (ICC 6, Pittsburgh)

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**First Conference in 1999**

- Richard Sternberg
- Jonathan Wells
- Todd Wood
- Paul Nelson
- Charles Thaxton
- Kurt Wise

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**Who Are The Baraminologists?**

**YEC**
- Kurt Wise
- Todd Wood
- Wayne Frair
- Walter ReMine

**ID / YEC**
- Paul Nelson
- Marcus Ross
- John Mark Reynolds
- Charles Thaxton
- Sigfried Scherer

**ID / Unknown**
- Richard Sternberg
- Jonathan Wells
Where are they publishing?

- Proceedings of the International Conference on Creationism
- Creation Research Society Quarterly
- Institute for Creation Research Impact
- Creation ex Nihilo Technical Journal
- Origins
- CORE Issues in Creation
- Occasional Publications of the BSG

Occasional Publications of the BSG

12. Baraminic Distance, Bootstraps, and BINSTMD (2008)

BSG

Consensus positions

Modern species arose not at creation but since then. Most baraminologists accept the Noachian Flood, which was the most catastrophic geologic event in the history of the earth, as the environmental trigger for rampant diversification and speciation. …

At creation, each baramin was designed with latent information that was switched on, recombined, and fragmented as survivors of the catastrophe reproduced, dispersed, and populated the many newly available, unexploited habitats. Mutations since then have further altered the genetic composition of species.

Questions

- How do we detect a baramin?
- How do we deal with the implication that the vast, vast, vast, majority of species must thus have developed in the ~4,000 years since the Flood.
Why baramins must exist …

“We creationists rest instead on the philosophical and biblical foundation … Since we believe that something like a ‘diverse unit of biological creation’ … must exist, detecting baramins becomes a matter of adjusting our context until the baraminic limits emerge.”

The nature of the baramin …

“[T]he short history of the earth would seem to preclude megaevolutionary events, such as the origin of new phyla or classes during only six thousand years since creation. … [T]he baramin may be generally equated with an order, family, or tribe, rarely with something broader or narrower” (p 71).

Additive Evidence

- Morphological or molecular similarity.
- Stratomorphic Series.
  - Stratigraphic fossil series connected by clear character-state transitions are evidence of continuity. For example, fossil and modern equids qualify as a baramin.
- Successful inter–specific hybridization.
  - If members of two different species can successfully hybridize, they share genetic and morphogenetic programs and are, thus, holistically continuous.

Hybridization as a Criterion

If A hybridizes with B, and B with C can we assume A would breed successfully with C?

Barriers to reproduction

- Geographic separation
- Behavioral differences
- Pre-zygotic barrier
- Embryonic non-viability
- Sterility of offspring

Subtractive Evidence

- Morphological or molecular dissimilarity.
  - Are the natural and hybridized forms within the group separated from organisms outside the group by gaps that are significantly greater than intra–group differences?
- Lack of fossil intermediates.
- Scripture claims discontinuity.
  - E.g. Scripture claims humans to be a baramin and that whales (“great sea monsters”) are discontinuous from land mammals.
“Obviously, when the Bible clearly claims discontinuity, any other evidence is unnecessary. As a result, the quality of the Australopithecine or whale [fossil] series is overruled by the biblical claims of discontinuity between humans and apes and between whales and land creatures.” (p. 93).

Consider the beetles

- There are at least 166 families (“kinds”).
- These contain perhaps 350,000 to 8,000,000 species.
- Allowing the Flood to end in 2448 BC would mean a speciation rate for beetles alone of 79 to 1795 per year.

Horses

- Biblical evidence indicates the members of the horse baramin must have originated in “just 370 years immediately after the Flood” as did the Camel baramin. The majority of these organisms subsequently went extinct (Wood et al. p. 172).
- Horse: 7 extant and 150 extinct species ... in 370 years
- Versus ~55,000,000 years

Camelid:
4(+2) extant and 200 extinct species ... in 370 years.
Some questions ...

- Has this rate slowed down?
- If so, when & why?
- Written history should be full of accounts of speciation happening in real time.
- How are these species being formed?

Some “Basic Kinds” We Would Expect to See in Pre-Cambrian Rocks

Beetles – 166
Fish – 445
Amphibians – 34
Reptiles – 48
Birds – 144
Mammals – 135
Humans – 1

The Fossilization Process

- Quick burial in ...
- Depositional area which ...
- Becomes erosional and where ...
- Someone finds the specimen before ...
- It erodes.

LUCK !!!!

Becoming A Fossil

![Becoming A Fossil](image)
You  
Father  
Mother  
Grandfather  
Grandmother  
Great Great Grandparents  
Great Grandparents  
Great Great Grandparents  
Aunts  
Uncles  

Lineal Ancestry  
Collateral Ancestry

Absence of evidence is not evidence of absence
And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind: and God saw that it was good.

Suborder Mysticeti
- Balaenidae (4)
- Balaenopteridae (10)
- Eschrichtiidae (1)
- Neobalaenidae (1)

Suborder Odontoceti
- Delphinidae (38)
- Monodontidae (2)
- Phocoenidae (6)
- Physeteridae (1)
- Kogiidae (3)
- Iniidae (1)
- Lipotidae (1)
- Pontoporiidae (1)
- Planistidae (1)
- Ziphidae (21)
“In North America the black bear was seen by Hearne swimming for hours with widely open mouth, thus catching, like a whale, insects in the water. Even in so extreme a case as this, if the supply of insects were constant, and if better adapted competitors did not already exist in the country, I can see no difficulty in a race of bears being rendered, by natural selection, more and more aquatic in their structure and habits, with larger and larger mouths, till a creature was produced as monstrous as a whale.”

What are whales related to?

- Suggestion of ungulates (1883).
- But which ones?
  - Artiodactyls (“even-toed”)
    - hippos, deer, cattle, pigs, camels
  - Perissodactyls (“odd-toed”)
    - horses, rhinos, tapirs

Duane Gish, 1985

“It is quite entertaining, starting with cows, pigs, or buffaloes, to attempt to visualize what the intermediates may have looked like. Starting with a cow, one could even imagine one line of descent which prematurely became extinct, due to what might be called an ‘udder failure!’

David Berlinski, 2006

“The interesting argument about the whale, which is a mammal after all, is that if its origins where [sic] land-based originally...what do you have to do from an engineering point of view to change a cow into a whale?...Virtually every feature of the cow has to change, has to be adapted.”

AiG on Whales

“Incredible as it may seem, evolutionists now consider the closest living relative to the hippo to be cetaceans, or whales! A University of Berkeley study in 1985 allegedly showed, using blood proteins and DNA, that whales were more closely related to hippos than any other animal. ... This same study admitted that the findings were not based on fossil evidence, but on speculation and conjecture, guided by the watchful eye of evolutionary dogma.

“Were evolution really true, millions upon millions of mutations would be needed to transform one basic kind into another. We should be able to see a multitude of ‘gradations’ between a hippo and the whale. But we don’t see this.”

Fossil whales date back to 50mybp and fossil hippopotamidae to 15mybp. Hippos are an extant sister-group, but clearly not the ancestors of whales.

The position of Hippopotamidae within Cetartiodactyla

Dembski & Wells (2007)

“The 'whippo' [whale-from-hippo] hypothesis sets at odds fossil and molecular evidence. Fossil similarities suggest that hippos are close evolutionary relatives of (pigs and camels), but far removed from whales. On the other hand, molecular similarities suggest that hippos are close evolutionary relatives of whales, but far removed from pigs and camels. ... There’s no compelling reason to trust either hypothesis. In fact, there is good reason to distrust both hypotheses” (86)

Creationists Claim

“The absence of unambiguous transitional fossils is illustrated by the fossil record of whales. ... Darwinsists believe that whales evolved from a land mammal. The problem is that there are no clear transitional fossils linking land mammals to whales. If whales did have land-dwelling ancestors, it is reasonable to expect to find some transitional fossils.”

(p. 101 - 102)
**Trends**

- Increased aquatic lifestyle
- Shift from fresh to salt water
- Loss of hind limbs
- Modification of fore limbs into flippers
- Shrinkage of head
Early Eocene artiodactyls
- Pakicetus
- Ambulocetus
- Protocetids
- Basilosaurids
- Living Cetacea

Oldest known whales are quadrupedal

Isotopes demonstrate semi-aquatic lifestyle

Duane T. Gish (1985)

“This evidence indicates a fluvial and continental rather than marine environment as would be expected for a whale or whale-like creature”
Early Eocene artiodactyls

Hippocetus
Ambulocetus
Protocetids
Basilosaurusids

Hips decouple from backbone
Living Cetacea

Nostrils move backward along skull

Living Cetacea

Figure 3. Adult and fetal skeletons: skull of the protocetid Pakicetus (left) and the fetal skeleton of Ambulocetus (right). Scale bar equals 1 cm. Bottom left: the maxilla of Pakicetus and the skull of Ambulocetus (top). Scale bar equals 1 cm.

Figure 13. Principal components analysis of tooth and body dimensions for the protocetid Pakicetus, and a representation of 58 fossil and Recent cetaceans. The x-axis is similar to the x-axis above, but also includes the molar tooth area and percentage of mass. The y-axis is similar to the y-axis above, but also includes the rate of change of molar tooth area and percentage of mass. The data points represent individual species, and the lines represent the mean values for each group. The data points are superimposed on the principal component scores for each species.
Early Eocene artiodactyls

- Pakicetus
- Ambulocetus
- Protocetids
- Basilosaurids
- Living Cetacea

- Ankles still like an artiodactyl
- Nostrils move further back along skull
- Additional vertebrae in backbone
- Total loss of hind limbs
- Legs atrophy – fully aquatic existence
- Ankles still like an artiodactyl
Pseudogenes indicate ancestry

Duane T. Gish (1985)

“Like the bats, the whales ... appear suddenly in the Tertiary times, fully adapted by profound modifications of the basic mammalian structure for a highly specialized mode of life"

(citing Colbert, 1955)

Creationists Claim

“The absence of unambiguous transitional fossils is illustrated by the fossil record of whales. ... Darwinists believe that whales evolved from a land mammal. The problem is that there are no clear transitional fossils linking land mammals to whales. If whales did have land-dwelling ancestors, it is reasonable to expect to find some transitional fossils.”

(p. 101 – 102)

An ID Supplementary Textbook

“Recently, some scientists think they have discovered a transitional fossil sequence connecting land-dwelling mammals to whales.”

(2007, p. 20)
Some Darwinists regard fossil evidence for the evolution of whales as a success story second only to the fossil evidence for the evolution of mammals from mammal-like reptiles. In fact, the evidence for neither is compelling.” (84)

Obviously, when the Bible clearly claims discontinuity, any other evidence is unnecessary. As a result, the quality of the … whale series is overruled by the biblical claims of discontinuity between … whales and land creatures.” (Wood & Murray, 2003)

The whale fossil series of “intermediates expected by macroevolutionary theory is surely strong evidence for macroevolutionary theory. Creationists therefore need to accept this fact. It certainly CANNOT be said that traditional creation theory expected (predicted) any of these fossil finds” (CEN Tec. J. 9 1995)

They “may be nothing more than morphological intermediates which ended up in stratigraphic intermediate position by one accident or another… a random depositional process.” (CEN Tec. J. 9 1995)

The whale series is “a very powerful stratomorphic series … not explainable by the conventional Flood geology method … Furthermore, whale fossils are only known in Cenozoic (and thus post-Flood) sediments. It seems to run counter to the intuitive expectation that the whales should have been found in or even throughout Flood sediments. At present creation theory has no good explanation for the fossil record of whales” (CEN Tec. J. 9 1995)
"I demand of you, and of the whole world, that you show me a generic character, by which to distinguish between Man and Ape. I myself most assuredly know of none. I wish somebody would indicate one to me. But if I had called man an ape, or vice versa, I should have fallen under the ban of all the ecclesiastics. It may be that as a naturalist I ought to have done so."

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**Carolus Linnaeus, 1747**

"I demand of you, and of the whole world, that you show me a generic character, by which to distinguish between Man and Ape. I myself most assuredly know of none. I wish somebody would indicate one to me. But if I had called man an ape, or vice versa, I should have fallen under the ban of all the ecclesiastics. It may be that as a naturalist I ought to have done so."

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**The Baraminological Position**

- Wood (2006): "the family is an approximation of the ‘created kind’ may be correct"
- Wood & Murray (2003): "Obviously, when the Bible clearly claims discontinuity, any other evidence is unnecessary. As a result, the quality of the Australopithecine … series is overruled by the biblical claims of discontinuity between humans and apes"
**Chromosome Numbers in the great apes**

- Human (Homo): 46
- Chimpanzee (Pan): 48
- Gorilla (Gorilla): 48
- Orangutan (Pongo): 48

Testable prediction: If these organisms share a common ancestor, that ancestor had either 48 chromosomes (24 pairs) or 46 (23 pairs).

**Ancestral Chromosomes**

- Fusion
- Inactivated centromere
- Telomere sequences

**Human Chromosome #2 shows the exact point at which a fusion took place**


**GLO Pseudogenes**

- Genes which are non-functional due to mutations or deletions: e.g., L-gulano-γ-lactone oxidase (GLO) in humans.

- It is known that vitamin C is required in the diet of all primates, (though not for other mammals except guinea pigs). We can make the prediction that primates should also be found to have GLO pseudogenes and that these would carry similar crippling mutations to the ones found in the human pseudogene.

- This prediction has been tested (Ohta and Nishikimi, 1999). The GLO pseudogene sequence was compared from human, chimpanzee, macaque and orangutan; all four pseudogenes were found to share a common single nucleotide deletion that would cause the remainder of the protein to be mistranslated.

- These "vestigial" genes indicate a shared evolutionary history.

**Endogenous Retroviruses**

Figure 4.11. Human endogenous retrovirus K (HERV-K) insertions in identical chromosomal locations in various primates. (Reprinted from Lubashev et al. 2000, © 2006, with permission from Elsevier Science).
Duane T. Gish on the Australopiths

Solly Zuckerman “studied these fossils for many years ... the most sophisticated methods of analysis available ... [He concluded they] were not intermediate ... [Charles Oxnard] applied the best methods available [and concluded that] these creatures ... are not intermediate and man’s ancestor.”

“I believe that these scientists have done the very best research on these creatures ... Evolutionists do not pay any attention to these scientists. They don’t like what they see. They would rather believe [Donald] Johanson.”

What did Zuckerman know 40 years ago?

What did Oxnard know 30 years ago?

What you know.
A Prediction:

If there are no intermediary forms, then there should be no confusion as to whether a specimen is "ape" or "human," especially among creationist writers.

"Obviously, when the Bible clearly claims discontinuity, any other evidence is unnecessary. As a result, the quality of the Australopithecine ... series is overruled by the biblical claims of discontinuity between humans and apes."