

<https://creationismeweersproken.blogspot.com/2023/01/de-rode-panda-en-cserhati-14-de.html>

THE RED PANDA AND CSERHATI (14): THE INTRODUCTION OF THE CRSQ ARTIKEL

The article by Matthew Cserhati in Creation Research Society Quarterly (2021) has the title: '*Classification of the Enigmatic Red Panda (Ailurus fulgens) Based on Molecular Baraminology-Based Analysis*'.



Figuur 1. De rode panda *Ailurus fulgens*

Creation Research Society and Baraminology: this is a different world from BMC Genomics.

1 What says Genesis?

The introduction of the CRSQ article has as its first sentence:

Genesis 1:20–25 describes how God created fish, birds, and land-animals each according to their kinds.

Fish, the great whale, and birds are mentioned in Genesis 1: 20-23, the land animals in Genesis 1:24-25:

25 And God made the beast of the earth after his kind, and cattle after their kind, and every thing that creepeth upon the earth after his kind: and God saw that it was good. (King James Version)

Creationists have their own interpretation of the Hebrew word translated as 'kind', 'after his kind'. That Hebrew word is *mîn*, and it occurs almost exclusively in this kind of context. The word is a collective, and indicates diversity:

Thus the biblical text emphasizes the diversity of life – plants and animals – with which God filled the sky, the sea, and the dry land he had created.

Consistent with the basic message of Genesis 1, the emphasis rests upon God's creation of life in all its abundance and diversity. ([Biologos](#))

The point is variety, diversity: 'as they are', 'as they live', as herbivores, predators, frugivores, climbers and diggers. According to their nature. 'Kind' is a word with a broad meaning in non-creationist English.

2 'Kind' and cluster

The first sentence of the CRSQ artikel paraphrases Genesis.

The next two sentences are:

Species within a kind were originally capable of breeding with one another but are incapable of breeding with species from another kind. Hence, there is continuity between species within a kind, and discontinuity between two separate kinds.

In the CRSQ article we are dealing with this creationist extension of Genesis. The indeterminate word 'kind' is developed into a central technical concept:

In technical terms, a kind is called a 'baramin, ... Thus, molecular baraminology is the study of the created kinds from a molecular biology perspective. A 'holobaramin' denotes all species which constitute a single baramin.

Followed by:

God probably created holobaramins with only one single species, but some kinds diversified more than others over time.

None of this is in Genesis, but it is standard creationism. It is so standard that it seems that creationists think Genesis says: God created 'kinds'.

The question for creationists is how to know which species belong in a 'kind', 'baramin' or 'holobaramin'. The idea is to look for a group that is continuous among members of the group, and discontinuous with other groups:

Hence, there is continuity between species within a kind, and discontinuity between two separate kinds.

Hennigan (2009) has a glossary of creationist terminology:

Continuity – Biologically meaningful similarity between organisms that embrace all types of biological characteristics.

Discontinuity – Biologically meaningful differences between organisms.

This leaves 'biologically meaningful' to be specified.

From the definition of 'kind', species must be related within a 'kind'. Continuity in traits must go back to common descent within a 'kind'. Discontinuity seems to imply unrelated.

Therefore:

- Baramin were created independently, and species in the same baramin are related
- Baramin were created independently, and species in different baramin are unrelated

The two questions for creationists are:

- How do you show that there is relationship within a baramin?
- How do you show that there is no relationship between baramin?

Proving no relationship exists is not so easy. Take sheep for example. The species *Ovis aries* is the domestic sheep, all breeds, and belongs to livestock, cattle. Cattle and wild animals were created separately (Genesis 1:25), what implies that domestic sheep must be placed in a different baramin than wild sheep. One species of wild sheep, the Asian mouflon, is regarded as the ancestor of the domesticated species. Apart from the domestic sheep species and Asian mouflon, the genus *Ovis* contains quite a few sheep species; and all kinds of species in the subfamily Caprinae are also called 'sheep'. Quite similar sheep species, but wild animals, not cattle. How do you show biologically that the domestic sheep belongs in another baramin, as it is cattle?

Creationists prefer to use clustering to look for biological groups: statistically, species in a cluster are more similar than species in different clusters.

Similarity within a cluster is a different idea of "continuous" than "biologically meaningful" or relatedness.

Clustering tells you nothing about relatedness and little about biology. Nevertheless, for creationists cluster and continuity and relatedness coincide without further discussion; and being in different clusters and discontinuity and unrelated coincide without further discussion. Here is a great leap across the gap between statistics and biology.

3 Classification red panda

Cserhati pretends ambiguity about the placement of the red panda in the (evolutionary biological) scientific literature to be a good reason to look at the classification of the red panda. Cserhati mentions classification of the red panda with the raccoons, with the giant panda, as one's own family or in the vicinity of the raccoons, skunks and martens as possibilities. Much of what Cserhati writes in the introduction to the CRSQ article is also included in the introduction to the BMC Genomics article. I discussed that introduction earlier (blogpost 5).

In the CRSQ article, Cserhati elaborates on the placement of the red panda among the raccoon family, a possibility mentioned in 1995 by Slattery & O'Brien and in 1997 by Dragoo & Honeycutt. The study by Slattery & O'Brien (1995) compared the giant panda and four other species of bears, and four species of the raccoon family, to the red panda using different outgroups. The red panda is placed within the raccoon family (2x) or as a sister group of the raccoon family. Dragoo & Honeycutt (1997) provide a phylogenetic tree of their own data, without the red panda, combined with literature data with the red panda, and find weak evidence for red panda placement in the raccoon family. Both studies are old, and not very convincing.

Recent molecular phylogenetic work on the classification of the Carnivora and the red panda is not mentioned in this CRSQ article, as it was not in the BMC Genomics article.

Cserhati indicates that no previous creationist work focused on the red panda. The red panda only appears in the general baraminology study on mammals by Thompson & Wood (2018). The data used by Thompson & Wood come from a study of the skull and teeth of the raccoon family and the red panda, with two skunk species and a marten as an outgroup (Ahrens 2012). Ahrens (2012) preferred the red panda within the raccoon family Procyonidae, on grounds of dentition. However, Thompson & Wood's analysis places the red panda outside the Procyonidae

Cserhati, M., 2021, Classification of the Enigmatic Red Panda (*Ailurus fulgens*) Based on Molecular Baraminology-Based Analysis, Creation Research Society Quarterly 58 (2): 76-84

<https://www.creationresearch.org/classification-of-the-enigmatic-red-panda-ailurus-fulgens-based-on-molecular-baraminology-based-analysis>

<https://biologos.org/articles/the-meaning-of-min-in-the-hebrew-old-testament>

Hennigan, T. 2010. The case for holobaraminic status in bears (family Ursidae) and the implications within a creation model of ecology. CRSQ 46(4):271–283.

Chessa et al, 2009. Revealing the history of sheep domestication using retrovirus integrations. Science 324:532-536

Slattery, J.P., and S.J. O'Brien. 1995. Molecular phylogeny of the red panda (*Ailurus fulgens*). The Journal of Heredity 86(6):413–422.

Dragoo, J.W., and R.L. Honeycutt. 1997. Systematics of mustelid-like carnivores. Journal of Mammology 78(2):426–441.

Thompson, C., and T.C. Wood. 2018. A survey of Cenozoic mammal baramins. In Proceedings of the Eighth International Conference on Creationism, J.H. Whitmore (editor), pp. 217–221, A1-A83 (appendix). Creation Science Fellowship, Pittsburgh, PA.

Ahrens, H. 2012. Craniodental characters and the relationships of Procyonidae (Mammalia: Carnivora). Zoological Journal of the Linnean Society 164: 669–713.