

Precambrian metazoans within a young-earth Flood framework

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Most of the evidence for the 'oldest' metazoans (multi-celled animals) occurs as trace fossils in ancient Precambrian strata. Evolutionists believe that these metazoans were the first animals to have evolved on earth but there is some discrepancy between what the physical record provides and what the evolutionary model acknowledges. Also, evolutionists have not successfully described when or how the first metazoans arose. Some creation scientists have proposed that the presence or absence of metazoans can be used to determine where Grand Canyon strata fit within their uniformitarian-column-based framework. However they disallow reports of fossils within the Precambrian in the Grand Canyon and classify the majority of these strata as Creation Week deposits. This position is not required by either the uniformitarian or creationist framework and ignores the evidence of Precambrian metazoan fossils. Instead, the presence of metazoan trace fossils in the Precambrian reflects former marine environments that were impacted by the global Flood of Genesis.

Introduction

Uniformitarians interpret the plant and animal fossils found in Precambrian rocks as evidence of the earliest life on our planet. However, creationists should view these fossil-containing strata differently. For example, in another article, I proposed that plant fossils within the Precambrian rocks are the result of the global Flood of Genesis.¹ But what of the Precambrian animal fossils? Where do they fit in the young-earth Flood framework?

Evolutionists view the Precambrian metazoans as the first forms of animal life on earth. Yet surprisingly, similar fossils are found around the globe.²⁷ Unfortunately, the oldest of these fossils are usually

preserved as trace fossils (e.g. burrows left in soft sediment) — very rarely as body fossils or as impressions of their bodies. Consequently they are believed to have been soft-bodied creatures. Strangely, metazoan traces have been reported outside the time range presently accepted within the evolution-based global uniformitarian timescale for animal life. Hence, the age of the oldest metazoan fossils is a matter of much speculation and controversy. Uniformitarians give themselves plenty of 'time' to account for the origin of metazoan fossils. For example Morris stated:

When did metazoans appear? The objective fossil record starts with the first Ediacaran assemblages (~560-600 million years [Myr] ago), but some evidence suggests that metazoans were already in existence as early as ~800-1000 Myr ago [Riphean].⁸

The wide range of dates quoted is derived from an evolutionary interpretation of the metazoan fossil record. However, this dating scheme tends to come apart when actual metazoan fossils are found. Presently, many uniformitarians cannot decide when the metazoans evolved on earth.

Although some young-earth creationists have investigated the Precambrian strata in the deepest sections of the Grand Canyon, few have specifically searched for animal fossils. Some have sought to link the global uniformitarian stratigraphic column with Scripture.^{9,10} However the published conclusions are inconsistent with the evidence of plant fossils in the Precambrian,¹ and consequently are confusing. The work also ignores the animal fossils that are now widely recognized in Precambrian strata. This paper considers how the metazoan fossils in Precambrian rocks fit within the Earth's short history as described in the Bible, and how the antediluvian sediments and former life which existed in that world were affected by the global Flood of Genesis.

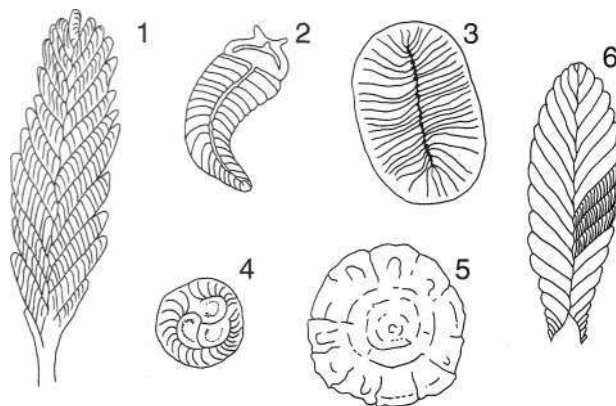


Figure 1. Examples of Precambrian metazoan Ediacara fauna. 1. Charnia; 2. Spriggina; 3. Dickinsonia; 4. Tribrachidium; 5. Cyclomedusa; 6. Rangea.

Metazoans

Precambrian metazoans are viewed as multicellular organisms with complex organ systems, dependent on other organisms for food.¹¹ The first metazoans are believed to have been small soft-bodied animals because of the lack of body fossils found in the fossil record. Only traces of these once living marine animals are found. Evolutionists consider these creatures were the first to arise from the single-celled protozoa, and the evolutionary ancestors of all the animals that exist on this planet.¹²⁻¹⁴ By way of contrast, this paper will consider the fossil evidence for the existence of Precambrian metazoan life, particularly the trace fossils of 'earliest' forms, from a biblical young-earth framework.

Metazoans within evolutionary uniformitarianism

For many years evolutionists believed that animal life generally began near the boundary marking the end of the Precambrian and the beginning of the Cambrian. Only within the past one hundred years has evidence of animal life been recognised within the late Precambrian strata. Much research has focused on the Ediacarian interval of the late Precambrian, because this fossil-rich strata shows that metazoans were once plentiful both in quantity and diversity (Figure 1).¹⁵⁻¹⁷ Strata older than Ediacarian are said to provide little evidence that animal life existed on this planet before this time. However, since 'evidence' *only* occurs in the form of fossils, animal life can be 'proved' to have existed only when animal fossils are found. Furthermore, uniformitarians believe that the simple body forms of the oldest metazoans would not readily lend themselves to fossilisation. Consequently, the absence of fossil evidence in the oldest and deepest strata does not 'prove' that metazoans did not exist at that time. Many questions about how, when, and where the metazoans originated remain unresolved within the evolutionary model.¹⁸

It has been suggested that metazoan fossils provide a way to identify the Precambrian/Cambrian boundary. For instance, in discussing the earliest evidences of animal life, Schopf stated:

*'The event that in my view most appropriately reflects the Proterozoic-Phanerozoic transition is the first appearance of metazoan body fossils and Lebenspuren characteristic of the Ediacarian System beginning about 680 Ma ago.'*¹⁹

It should be noted that the Ediacara Epoch 'officially' began at approximately 590 Ma and ended 20 million years later at the Precambrian/Cambrian boundary (Figure 2).²⁰ Schopf's date for the first appearance of the metazoans is well before the recognised time interval for

Ediacarian fossils, and this places the metazoans well into the Proterozoic. Interestingly, his date does not address ancestors. In recognising the ancestral problem of the metazoans, Glaessner stated:

*'The well defined biostratigraphic, chronostratigraphic and evolutionary identity of the Ediacara fauna confirms the view that a sequence of three stages in the early history of the Metazoa has to be explained rather than the supposed sudden appearance of most of the known phyla at the beginning of Cambrian...'*²¹

Several other uniformitarian scientists working within the Precambrian have echoed this problem of missing metazoan ancestors. Durham expressed annoyance that the metazoan precursors were largely overlooked

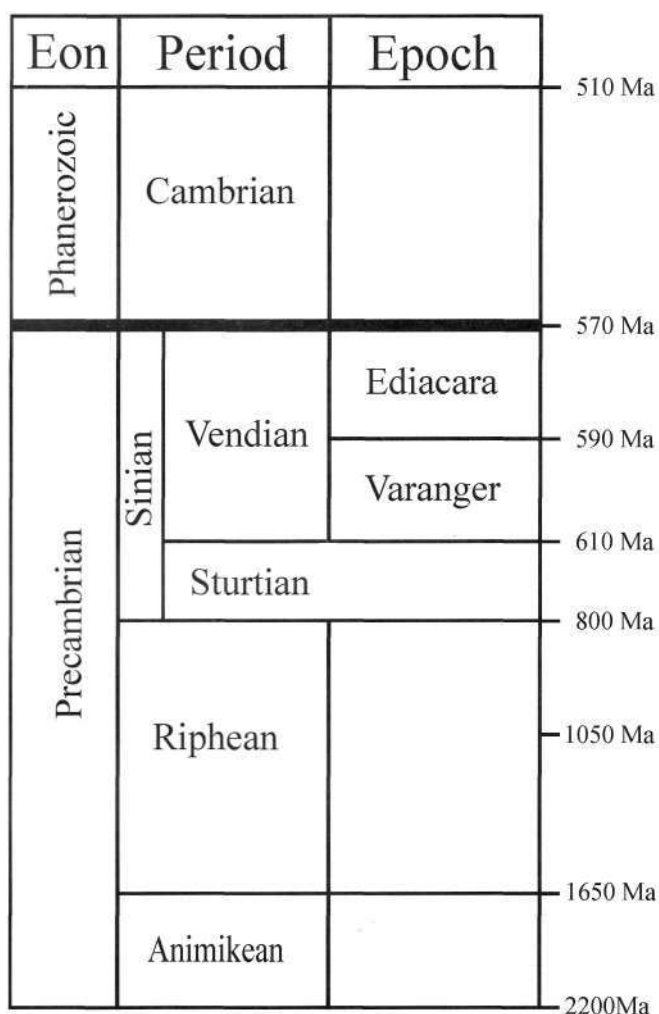


Figure 2. The lower portion of the global uniformitarian timescale where the 'oldest' animal fossils have been reported. Uniformitarians focus on metazoan fossils near the Precambrian/Cambrian boundary because that is where they are most prevalent, but animal fossils are found in much older strata. Trace metazoan fossils have been reported in Precambrian strata supposedly 2.0 billion years old. Explaining metazoan ancestors is even more problematical within the evolutionary model. (Ma = million years.)

within the evolutionary model:

*'Any metazoan fossil we find had a progression of ancestors from the ancestral protozoan to the descendent, a fact that is largely ignored in considering the composition of past biotas.'*²²

In order to reconcile this disparaging situation, he suggested:

*'It is obvious that something is wrong with these estimates of the time of origin of the Metazoa and the rates of evolution.'*²³

With regard to metazoan evolution, the global uniformitarian stratigraphic column must work from non-existent metazoan fossils, and its supporters can only guess at their evolutionary ancestry. Metazoan evolution within the uniformitarian model remains a mystery.

Precambrian metazoa — outside the model box

Occasionally, metazoan fossils are found outside the age range that is acceptable within the standard evolutionary time framework. (Note that these age-range boundaries can move so that what is rejected today might be accepted tomorrow.) Typically, metazoan fossils that are too 'old' are ascribed to inorganic processes and rejected (e.g., Weiguo's²⁴⁻²⁵ 700-900 Ma macroscopic worm-like body fossils, rejected by Cloud²⁶ due to his model constraints!). However, if the fossil can be shown to be of possible biogenic origin, it is further investigated. In many instances, the traces are found to be ambiguous or not clearly acceptable as evidence. In extreme cases, the rocks are reassigned new dates to make metazoan fossils acceptable within the global uniformitarian model. Examples include *Chuarina circularis* in the Mackenzie Mountains of northwest Canada in Elston and McKee,²⁷ one billion-year-old trace fossils in India, challenged by Kerr,²⁸ and reports by Cloud and Nelson,²⁹ and Cloud and Glaessner.²

In other cases where the metazoan fossils cannot be disproved, the evidence is usually overlooked or ignored. For example, Glaessner³⁰ reported the likely presence of trace fossils made by animal life within the Grand Canyon in strata dated over one billion years old. More recently, Kauffman and Fursich³¹ reported another billion-year-old trace fossil *Brooksella canyonensis* from the Grand Canyon. This trace was challenged as not being of biogenic origin (see Cloud³² and McMenamin and McMenamin³³). Kauffman and Steidtmann³⁴ reported finding metazoan traces in the Precambrian Medicine Peak Quartzite of southeastern Wyoming strata, which they dated to 2.0 Ga. Recent discoveries of metazoan remains from mainland China range in age from 700 to 900 million years.³⁵ In 1995, Breyer, Busbey, Hanson, and Roy³⁶ reported finding metazoan traces in West Texas, which they estimated to be 1000 million years old. Most recently, Seilacher, Bose,

and Pflüger³⁷ identified one-billion-year-old animal traces from India. Other metazoan fossils, ranging in age from 700 to 840 million years have prompted some evolutionary paleontologists to wonder just how many kinds of metazoans have completely disappeared during the Varangian glaciation,³⁸ an alleged Precambrian glaciation event supposedly covering 20 million years (610-590 Ma).⁷

Clearly, the finding of metazoan body or trace fossils within the lower sections of the Proterozoic or even the older Archean strata creates serious problems for the evolutionary model. Consequently evolutionists are most reluctant to accept the extreme ages for Precambrian animal traces and the reports of metazoan fossils in the oldest of Earth's rocks remain controversial. The idea is unacceptable within their evolutionary-uniformitarian model.³⁹⁻⁴² This opposition from evolutionists might also explain why some creationists are also sceptical of reports of Precambrian metazoan trace fossils, and have also rejected the possibility of animal life in these deeply buried strata.⁴³⁻⁴⁴

Precambrian metazoan traces — different creationist interpretations

Several years ago Dr Steven Austin and Dr Kurt Wise presented ideas about the pre-Flood/Flood boundary within the Grand Canyon to the International Conference on Creationism.¹⁰ Their position was reiterated and reinforced in Dr Austin's book on the Grand Canyon.⁹

In defining the pre-Flood/Flood boundary, Austin and Wise¹⁰ relied on unexplained modifications to the global uniformitarian stratigraphic column. While they do not hold to the strict age dates for the vertical sequence of uniformitarian strata, they believe that this sequence remains the same on the local and global level.⁴⁵ In identifying the pre-Flood/Flood boundary they invoked five 'Discontinuity Criteria' from which they defined this boundary for the Grand Canyon and the eastern Mojave Desert, California. The one criteria of interest with regard to Precambrian metazoans is the Paleontological Discontinuity. Regarding the occurrence of Precambrian/Cambrian trace fossils and their use as pre-Flood/Flood boundary indicators, Austin and Wise stated:

*'Consequently, below the pre-Flood/Flood boundary, sediments capable of preserving fossils might, at best, contain only traces of the most abundant and easily fossilized life forms — bacterial, algal, and protist fossils — and probably in very low abundance. Plant, animal and fungal fossils might be expected to be found in high abundance only above the pre-Flood/Flood boundary.'*⁴⁶ (Emphasis mine)

Although this criterion is consistent with the thesis of this paper, Austin and Wise still draw their pre-Flood/Flood boundary in the Grand Canyon area at the base of

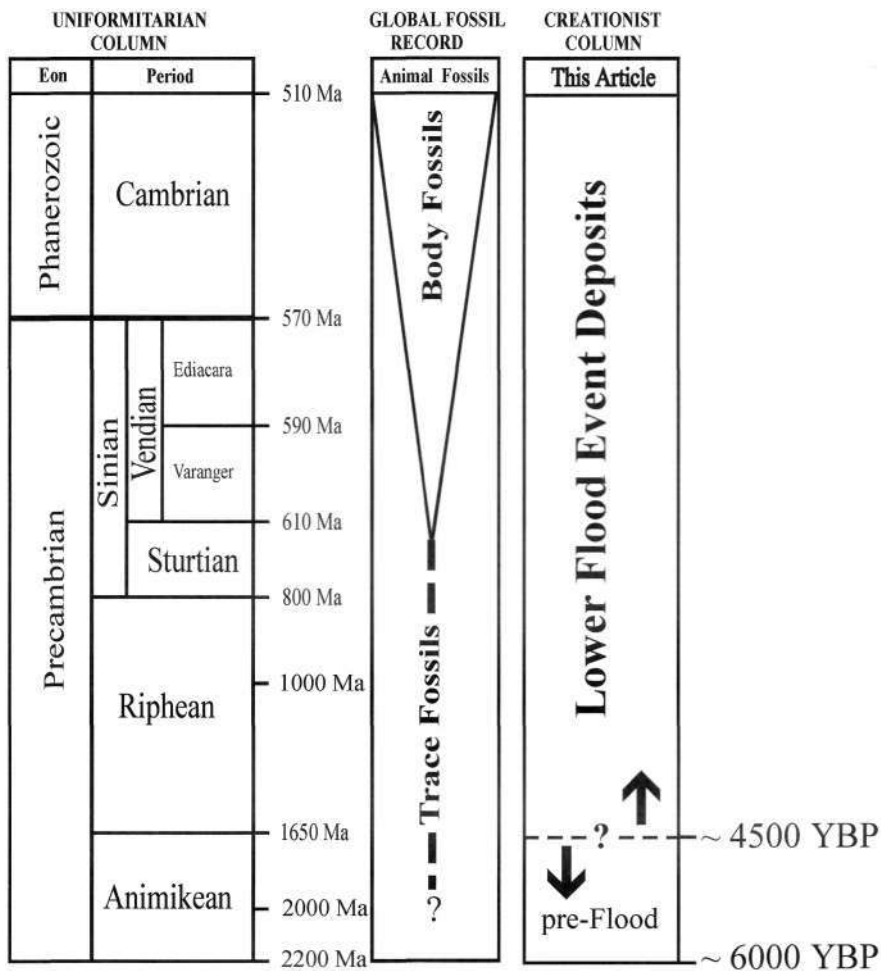


Figure 3. Evidence of metazoan fossils extends well into the Precambrian. The presence of trace fossils within the deepest strata defines them as either buried Antediluvian marine deposits or bioturbated Flood strata. Within the young-earth Flood framework, fossil-containing strata have nothing to do with evolution of life or the global uniformitarian stratigraphic column. Site-specific investigations must be conducted to determine how these fossils fit within a Flood-based geological interpretation. Dates shown for the Creation and the Flood are approximate. (Ma = million years, YBP = years before present.)

the Cambrian. This requires that *all* Precambrian strata in the region to have been formed during the Creation Week. Austin and Wise apparently have completely overlooked the metazoan fossils identified in Precambrian strata in the Grand Canyon as documented by uniformitarians.⁴⁷⁻⁵⁰ Their position may have been influenced by their acceptance of the general framework of the global uniformitarian stratigraphic timescale.⁴⁵

Even if the pre-Flood/Flood boundary did occur at the base of the Cambrian in the Grand Canyon, the base of the Cambrian could not be taken as the pre-Flood/Flood boundary in other parts of the world. Biblical geological models are fundamentally different from geological models based on evolutionary uniformitarianism. There is not necessarily a one-to-one relationship between the different units that comprise each framework. Adoption of a one-to-one relationship would herald a return to old ideas

discarded over one hundred years ago. In discussing creationists' use of the Precambrian/Cambrian boundary McMenemy and McMenemy stated:

*'Creationists still occasionally offer the Precambrian/Cambrian boundary problem as a fatal flaw for evolutionary theory. This is no longer a valid approach, however, because true animal fossils are now known from sedimentary rocks which are much older than [sic] the base of [or lowest level of] the Cambrian.'*⁵¹ (Emphasis mine)

Many young-earth creationists now advocate the complete abandonment of the global uniformitarian stratigraphic column as it has no bearing on what the Scripture will allow within the framework of the young-earth Flood model.⁵²⁻⁶³ At present only two creationists have offered a different approach to defining the stratigraphic column within a biblical framework.⁵²⁻⁵³ This approach recognizes that *all* life was created within the first six days of Earth's history and that fossils found within the rocks and strata of the Earth's crust are simply artefacts of the global Flood, and the time thereafter (Figure 3). Perhaps eventually creationists can use these metazoan traces (and body fossils) along with

other changing-energy indicators to define which strata are Antediluvian and which were deposited during the Flood.⁶⁴⁻⁶⁶ However, this work has yet to be conducted.

Conclusion

Precambrian metazoan fossils are used to define the earliest history of life on Earth within the evolutionary framework. Where fossils are reported and verified, the story of life on this planet is changed to suit. However, it would seem that in some instances the reports of fossils have been either overlooked or ignored. It would appear that the presence of well-documented animal traces within some extremely ancient Precambrian strata is too controversial for many uniformitarian paleontologists to accept. No reason has been advanced to explain why the

evidence should be ignored. Part of the reason may be a desire to keep the standard evolutionary framework simple and straight-forward. In addition, the reason may be linked to an urge to avoid explaining how animal life originated on this planet much earlier than is presently accepted.

The pre-Flood/Flood boundary in the Grand Canyon area cannot lie at the base of the Cambrian as Austin and Wise proposed because there is conclusive evidence of Precambrian animal fossils in the region. Once the pre-Flood/Flood boundary is identified in a region (such as the Grand Canyon), it cannot be extrapolated to other parts of the world using the global evolutionary stratigraphic column. Biblical geological models are fundamentally different from the evolutionary uniformitarian geologic column. The geologic boundaries for the biblical geologic framework must be identified separately region by region around the world.

Within the young-earth Flood framework, the most important issue with regard to the Precambrian metazoan fossils is that these animals were once marine creatures that probably lived in relatively deep-water environments. These metazoa were not the first animals to have evolved and lived on this planet. Rather, they were the first creatures to be buried with the onset of the Flood (Lower Flood Event Division,⁵⁹⁶² or Eruptive phase⁵³). Whether the Precambrian strata containing the trace and body fossils within the Grand Canyon were original to the Antediluvian era or were bioturbated Flood deposits remains to be resolved. The presence of animal traces within these deeply buried strata means that they cannot be Creation Week rocks.

Creationists should actively explore the Precambrian strata as these layers can help us better understand the forces operating during the global Flood of Genesis. Finding metazoan fossils would shed light on the original paleoenvironmental setting or determine the transport energy associated with Floodwater movement when these sediments and organisms were deposited (or buried *in-situ*).

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