Taxonomic manipulations likely common

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When looking at evolutionary biostratigraphic or taxonomic schemes, one cannot help but be impressed with the detail and presumed precision of many of them. Charts show the change of each species, often just a small change from a similar 'species', over time. Many of these fossils are used as index fossils to date sedimentary rocks. Such precision in taxonomic schemes has an aura of accuracy and truth and has persuaded many Christians to believe these schemes and/or to believe in molecules-to-man evolution. But a closer look reveals that there is much that is wrong in these fossil charts.

The examples of cephalopods and foraminifera

Minute changes in cephalopods have been used to date Mesozoic strata. But there is evidence that many defined species are time-transgressive (i.e. varying in age in different areas, or cutting across time planes), so cannot be used to define a certain, exact time period in the geological timescale. Undoubtedly, the defined species are subject to taxonomic manipulations, since it is very difficult to define a species today and impossible with just bones or shells since hybridization tests cannot be performed.

One would think the difficulties of setting up a biostratigraphic scheme would be even more apparent with microorganisms, because of their small size and the many unknowns associated with them. For instance, it may be almost impossible to define a true species of microorganism and classify a type of extinct microfossil because of such factors as the unknown variations with a species, size differences between males and females and ontological differences. Moreover, many microorganisms are easily reworked and dissolved.

Tammy Tosk reported on multiple manipulations of foraminifera, a common index fossil for evolutionary dating. She points out that only a very small fraction of the sedimentary rocks have been sampled so that the true distribution and abundance of foraminifera is really unknown. We really do not know the three-dimensional distribution of fossils, and surprises occur almost every week, some of which I have been reporting.

Tosk also notes that the same or a similar foraminifera will be given a different name if found in a layer of different age:

> "Another problem with using published descriptions and stratigraphic data is that fossils are often placed in different taxa, even in different superfamilies, if they are found at different levels, even though they might be placed in the same genus or species if found together. It is therefore difficult to recognize potentially equivalent species in the geological column."

Such a procedure is a huge fudge factor to make fossil charts show a nice 'change with time'.

It is known that foraminifera of the same species can vary significantly in their morphology, i.e. their overall form and structure:

> "Within a single species the foraminifers may have thick ornamented walls under normal oxygen concentrations, and thin, less-ornamented walls under low oxygen conditions. … Because of the many examples of variation in living and fossil forms, foraminifers are considered to be extraordinarily plastic (Kennett 1976). A foraminifer may contain enough genetic information to express many different forms, depending on the conditions."

And in classifying such microorganisms, it is all too easy to define very slight changes as different species or genera.

Therefore, many of the claimed species in these biostratigraphic schemes probably should be put in the same species, indicating that the defined species are surely oversplit:

> "Many of the so-called species in the fossil record were probably not separate biological species. A species is defined as a potentially interbreeding group. Fossil species can only be defined on the characteristics of the preserved remains."

So, when considering all the above problems, these nice, 'precise' charts of microfossil changes with time, used to date rocks and other fossils, are way beyond the state of the art. We should not take these charges as verbatim and use them in dating within a Flood model.

Such taxonomic manipulations and the difficulty of even defining a fossil species are two of many reasons why I do not take the geological column as a precise order for biblical earth history, but more of a general order.

Dinosaur manipulations

Although we could expect microfossils to be difficult to classify and place in a biostratigraphic dating

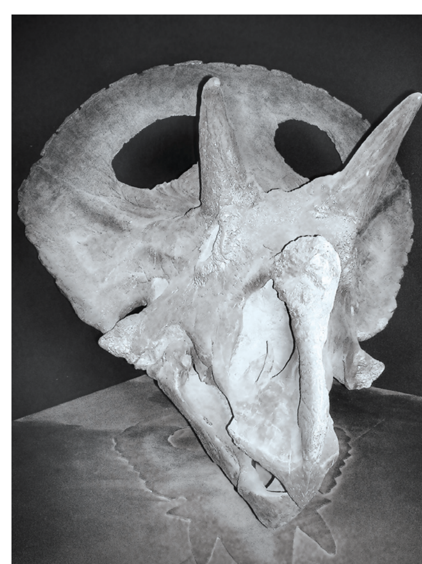

Figure 1. *Torosaurus* from the Museum of the Rockies, Bozeman, Montana, US.

scheme, larger animals could perhaps be much easier. However, this is not the case. I have found numerous problems, manipulations, and circular reasoning in dinosaur classification and biostratigraphy.[11]

One of the most blatant examples of circular reasoning is the claim that dinosaurs went extinct at the end of the Mesozoic (very late Cretaceous). However, Glenn Jepsen admitted that this timing is based on circular reasoning, because paleontologists simply *define* the end of the Mesozoic as the time the dinosaurs went extinct:

> "Geologists themselves must take much of the responsibility for the dissemination of this concept [that the dinosaurs went extinct in a few days or a few thousand years] because they have often defined the end of the Age of Reptiles or Mesozoic Era [about 65 million years ago] as the exact time that dinosaurs became extinct. Ergo, reasoning in a tight circle, dinosaurs became extinct at the end of Mesozoic time."

I have documented many examples of claimed Cenozoic dinosaur discoveries from the literature that were 'redated' or somehow shoved back into the Mesozoic by various means, especially by the claim of 'reworking'.

I believe such examples with dinosaurs are just the extreme tip of the iceberg in what goes on in evolutionary taxonomy. Such manipulation is how I believe so much of the 'precision' in the geological column and biostratigraphy is achieved.

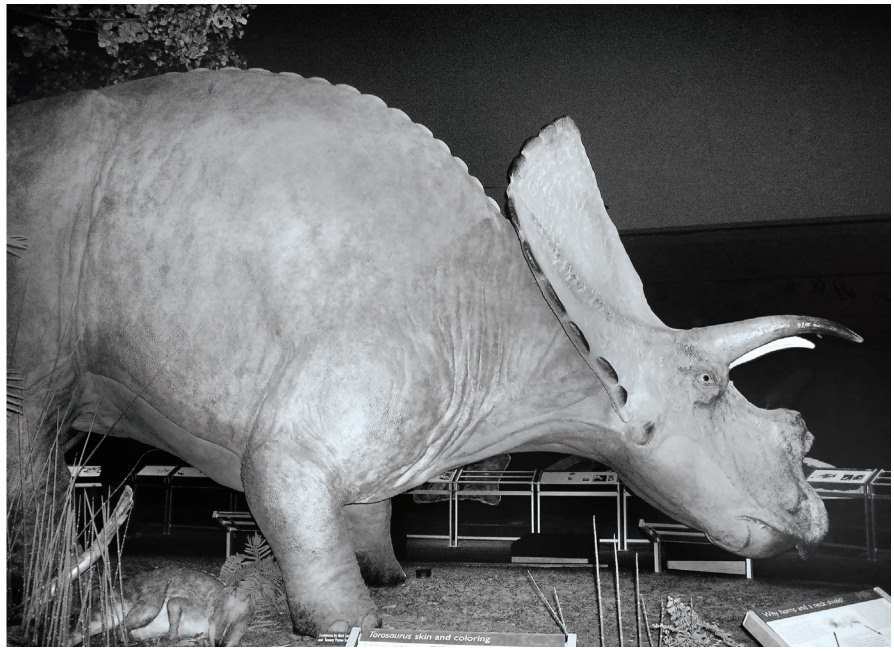

Figure 2. Adult *Triceratops* from the Museum of the Rockies, Bozeman, Montana, US.

Recent developments with ceratopsians

Recent developments with ceratopsian dinosaurs reinforce these problems. Ceratopsians display a fair amount of variability in their head frills and horns. It is easy for evolutionists to classify them into various species and genera based on the head characteristics. However, it is quite possible that all the ceratopsians dinosaurs are all one kind in the biblical worldview, and the variation is just an example of pre-Flood natural selection or simple variety within a kind.

Just recently, paleontologists have realized that two claimed species of ceratopsians are actually the same species. *Torosaurus* had a huge head frill with two holes in it (figure 1), while *Triceratops* had a smaller head frill with no holes in it (figure 2). These two ceratopsians had been considered distinct genera for over a century! But now they are considered the *same* species with the *Torosaurus* being an older *Triceratops*. This example shows how important it is to understand ontogeny (growth) in any fossil animal:

> "The radical changes in cranial morphology that occur throughout ceratopsid ontogeny … entail that an understanding of ontogenetic development is critical to studies of their paleoecology and systematics."

Such knowledge of ontogeny is impossible with just a few scraps of bone or teeth; numerous fossil individuals are required. And even when whole skeletons are available, many mistakes can be made in classification. Similar discoveries of oversplitting in the past are being discovered with tyrannosaurs and pachycephalosaurs.

Another recent development with ceratopsians is that they are being found over a wider area of the world, which reinforces the problem that there are still a huge number of fossils ready to be discovered, some of which will bring surprises to the 'precise' evolutionary taxonomic schemes. It had always been thought that ceratopsians were denizens of western North America and central and eastern Asia. However, ceratopsians are now found in Europe, in the Late Cretaceous from Hungary and possibly from Sweden and Belgium. The identification of ceratopsians in Sweden and Belgium is based mainly on the teeth, but this could be problematic because of so-called convergent evolution:

> "The identification of ceratopsians based on isolated teeth must be treated with caution because ornithischian dinosaur dentition is well-documented as highly homoplastic, with particularly striking evolutionary convergences observed between ceratopsian and ornithopod ornithischians."

Convergent evolution should be nearly impossible within the evolutionary paradigm, because no two environments remain the same for long periods to 'evolve' similar structures in very different animals.

The identification of true ceratopsians from at least Hungary brings up a slight problem in plate tectonics, since the fossils are found in the western Tethyan Archipelago, which means they are isolated from Asian and North American ceratopsians. So, it is suggested that the ceratopsians arrived in Europe by "an early Late Cretaceous dispersal event from Asia, possibly by island-hopping across the Tethys Ocean". The incredible plasticity of evolutionary/uniformitarian history is evident. Thus, the new Hungarian ceratopsians add complexity to a simple evolutionary scheme:

> "*Ajkaceratops kozzmai* [the Hungarian ceratopsian] thus adds new complexity to our understanding of late Cretaceous dinosaur faunas and demonstrates the need for reevaluation of current biogeographical hypotheses."[20]

Splitting of dinosaurs and other organisms common

This example shows that dinosaurs have been oversplit, with a host of names for the same species or kind of dinosaur. Another recent article shows that dinosaur species splitting, or giving different names to the same dinosaur, has been common, especially with prolific authors from years past, such as Othniel Marsh and Edward Cope. The paper revealed that there really are *no rules* for naming a new species:

> "There are no rules for determining the level at which varieties, subspecies, species, and genera ought to be discriminated, and such debates are even trickier in dealing with fossil species, where generally the only evidence is characters of hard tissues of skeletons or shells."

So, it is especially difficult in determining even a genera for a *living* organism, not to mention a fossil organisms. The subjectivity of taxonomy should caution us to not believe those 'precise' schemes. On another issue, if one cannot even demonstrate what a species is, how can evolutionists make claims about 'speciation'?

Therefore, many names of dinosaurs are invalid, possibly more than half. This is also the case with other organisms:

> "Many current debates about biodiversity and large-scale evolution have identified the need for comprehensive species inventories. Such species lists may be incomplete because more collecting is needed, or because of errors by systematists [classifiers]. Empirical studies show that error rates are high, as much as 30-50% of many living and fossil groups."

Summary

When we observe those nice, precise biostratigraphic schemes, we need to remember that a lot of evolutionary bias, taxonomic manipulation, and unknown information on classification has gone into these dating schemes. One large unknown is that the fossil record is far from complete:

> "Reconstructing the historical distribution of Earth's fauna and flora is a challenging task, not least because of the incomplete, often poorly dated, nature of the fossil record."

So, new discoveries in the future will broaden the time range of many organisms in the geological column. The current precise-seeming, fossil species distributions over time, sometimes used to date rocks and other organisms, should not be taken seriously.

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