Dinosaur Divorce

Irreconcilable differences cited

If some scientists have their way, the traditional dinosaur family will be broken up! The breakup could not come at a better time for us here at Science Against Evolution.

The cover story of the 22 March, 2017, issue of the professional journal, *Nature*, gave us a perfect example of what we have been saying for the last several months. Evolutionists assume that similarity is the result of common ancestry. Therefore, they think that they can determine ancestry by studying similarity. They use cladograms to determine similarity, and from those cladograms infer ancestry.

We reject the premise that similarity has to be the result of common ancestry—but that’s another story. Instead, our emphasis in the last few newsletters has been that cladograms are subjective. They reflect the bias of the programmer who determines the algorithm that makes the comparisons. The proposed revision of the dinosaur family tree is a perfect example.

The new study assesses kinship among 74 dinosaur species that span the family tree, on the basis of similarities or differences in more than 450 anatomical features, says Matthew Baron, a vertebrate palaeontologist at the University of Cambridge, UK, who led the study.¹

The title and subtitle of the story are:

Dinosaur family tree poised for colossal shake-up
'Textbook-changing' analysis of dinosaur bones upends long-accepted relationships among major groups.

We aren't going to take sides on who is right and who is wrong because it really doesn't matter. Similarity isn't proof of common ancestry, so it doesn't matter which dinosaurs are most similar.

Here's what is important: The reclassification of dinosaur families isn't the result of any new fossil discoveries. All that changed was the way the data was analyzed. Matthew Baron had a different opinion about what traits are the most important indicators of similarity. He decided which 74 species to compare. He decided which 450 anatomical features to compare. A new computer algorithm, based on Baron's opinions, produced a new result. Real science isn't based on opinions. Real science is based on observation and experimentation. There was no observation of one kind of dinosaur evolving into another. No experiment caused one kind of dinosaur to evolve into a different kind.

All that changed was the analysis. We are supposed to believe that the old analysis was wrong, and the new analysis is right. How do scientists know which analysis is right? The one that confirms their prejudice must be right! The one that makes them most comfortable, and seems most reasonable because it reassures them that they are correct, must be correct. (And above all, the one that results in the most new funding for future studies is the best!)

**Why is this Important?**

Science is important. There would be no microwave ovens, computers, or cell phones without science. Biological research often leads to more effective treatment of diseases. If you played a game with your friends in which you take turns giving reasons why science is important until someone loses by not being able to think of something, that game would go on longer than a game of Monopoly because there are so many good reasons; but this foolish reason Sid Perkins gives is not a good one.

Besides upending decades of accepted wisdom about the relations among various dinosaur lineages, the new study hints that the first dinosaurs might have appeared around 247 million years ago, slightly earlier than previously suspected. They may also have originated in what is now North America, rather than in Gondwana — the southern portion of the supercontinent Pangaea — which was presumed to have been the dinosaur cradle.

How can anybody say this with a straight face? It is like arguing about whether or not Godzilla could beat King Kong in a battle to the death. It's all fiction with absolutely no practical value.

**Pangaea and Gondwana** are imaginary places which supposedly existed millions of years ago.

---

family tree poised for colossal shake-up”
http://www.nature.com/news/dinosaur-family-tree-poised-for-colossal-shake-up-1.21681

ibid.

2

ibid.

3 ibid.

4 https://en.wikipedia.org/wiki/Pangaea
Nobody ever visited these places to see if dinosaurs lived there or not. They exist only in the minds of doctors of philosophy. They are philosophical explanations of the world around us. Their supposed existence isn’t a scientific fact.

**Dinosaur History**

Here’s *Nature*'s summary of how dinosaurs were classified in the past, and how they should be classified in the future.

The clade Dinosauria was named and described by the palaeontologist Richard Owen in 1842. However, in 1888, Harry Govier Seeley noticed such glaring differences between dinosaurs that he divided them into two groups named after differences in their pelvic bones, and, for a century, Dinosauria was not recognized as a natural group that evolved from a single common ancestor. This view changed in the 1980s, when the palaeontologist Jacques Gauthier showed that dinosaurs form a single group, which collectively has specific diagnostic traits that set them apart from all other animals. So both Owen and Seeley were right. And there it pretty much stood — until this issue of *Nature*.

For decades, the reconstruction of evolutionary trees in all branches of life has been standardized by the use of a phylogenetic systematic approach that insists on recognizing natural groups only by newly evolved traits that their members uniquely share. Baron *et al.* use this analytical method, but reach different conclusions from those of previous studies by incorporating some different traits and reframing others. Because the authors followed standard methods, their results cannot be dismissed as simply a different opinion or speculation. Instead, the trait analyses they used will need to be scrutinized in minute detail by researchers.  

Despite the fact that a “standard method” was used, the results CAN be dismissed as “a different opinion or speculation.” The standard method used to be based on hip shape. Now the standard method is based on “newly evolved traits that their members uniquely share.” Which classification method is correct is simply a matter of opinion which can be dismissed as speculation.

Does any evolutionist want to explain to us how “newly evolved traits” are identified? We would love to publish the answer next month.

When researchers scrutinize the trait analyses in minute detail, what criteria will they use to determine if the right traits were selected? Any answer they give will really boil down to, “It makes the best sense to us,” which is really another way of saying, “It gives us the answer we desire.”

**LET THE MUDSLINGING BEGIN!**

It is customary for studies published in the professional literature to begin by trashing the previous studies. This study is no exception. It begins by explaining everything wrong with all the previous studies, which is why all the old studies are wrong, and the new study is right.

Recent phylogenetic analyses of early dinosaurs have also supported the traditional scheme (Saurischia and Ornithischia), but those studies that concentrated on the earliest divergences within the clade have been limited to include only a handful of the relevant taxa and incorporate numerous *a priori* assumptions regarding the relationships within and between the higher taxonomic groups. Most recent studies of basal dinosaur relationships have tended to focus on a handful of taxa contained within one or two dinosaur clades (usually Saurischia), with Ornithischia represented only as either a single supraspecific taxon or by a small number of basal forms, such as *Heterodontosaurus* and *Pisanosaurus*. No studies on early dinosaur relationships have included an adequate sample of early ornithischians and the majority of studies have also excluded pivotal taxa from other major dinosaur and dinosauromorph (near dinosaur) lineages. Furthermore, and possibly in part owing to the unique anatomy of ornithischians, many studies of early dinosaur evolution have tended to score ornithischian taxa only for either anatomical characters that are thought to be dinosaur symplesiomorphies (ancestral traits or characters shared by two or more taxa) or characters that are related to discussions of ornithischian monophyly. As a result, these studies have incorporated numerous, frequently untested.

---

5 *ibid.*

prior assumptions with regard to dinosaur (and particularly
ornithischian) character evolution, and have overlooked the
possibility that some of the characters found in ornithischian
taxa are homologues of those in sauropachian dinosaurs, even
though several authors have commented on the anatomical
similarities shared by ornithischians and theropods. In order
to examine the possible effects of these biased on our
understanding of dinosaur evolution, we carried out a
phylogenetic analysis of basal Dinosauria and
Dinosauriaformia and compiled, to our knowledge, the
largest and most comprehensive dataset of these taxa to
date. Although this study has drawn upon numerous
previous studies, no prior assumptions were made about
correlated patterns of character evolution or dinosaur
interrelationships. The results of this study challenge more
than a century of dogma and recover an unexpected tree
topology that necessitates fundamental reassessment of
current hypotheses concerning early dinosaur evolution,
palaeoecology and palaeobiology. 7

Of course, there were prior assumptions. The
most obvious prior assumption is that dinosaurs evolved from a common ancestor. ☺ The other
assumptions involve guessing which traits are
“newly evolved,” and which anatomical similarities
are the result of common ancestry, and which are
the result of convergent evolution.

**Little Things are More Important**

In order to come up with this new (and, more importantly, different) conclusion, the study
focused on little things, rather than big things.

Using a mix of fossils, photographs and
descriptions from the scientific literature, Baron
and colleagues surveyed the anatomy of more
than 70 different dinosaurs and non-dino close
relatives, examining 457 anatomical features.
The presence, absence and types of features,
which include the shape of a hole on the snout,
a cheekbone ridge and braincase anatomy, were
fed into a computer program, generating a
family tree that groups animals that share
specialized features. …

“The lesson is that dinosaur groups aren’t
characterized by radical new inventions,” says
paleontologist Kevin Padian of the University
of California, Berkeley. “The relationships are
read in the minutiae, not big horns and frills.”
That said, Padian, whose assessment of the
research also appears in *Nature*, isn’t certain that
the new tree reflects reality. Such trees are
constructed based on how scientists interpret
particular anatomical features, decisions that
will surely be quibbled with. 8

---

new hypothesis of dinosaur relationships and early
dinosaur evolution”, http://www.nature.com/nature/journal/v543/n7646/full/
nature21700.html
8 Rachel Ehrenberg, *Science News*, 17 April 2017,

---

Here’s our point: Who is to say that the shape
of a hole in the snout and a cheekbone ridge are
more important than big horns and frills when
determining evolutionary relationships? It is just a
matter of opinion that will surely deserve to be
quibbled with.

If the earliest dinos were really omnivores,
given the relationships in the new four-pronged
tree, the evolution of specialized diets
(vegetarians and meat eaters) each happened
twice in the dinosaur lineage. 9

If one believes that specialized diets evolved
first, then the traditional dinosaur family tree is
correct, and some other differences evolved
multiple times. It all comes down to an opinion
about which differences are more likely to have
evolved multiple times. This decision affects
which traits are newly evolved, and which are
basal traits.

---

**Evolution in the News**

**Dinosaur Delusions**

Discover *magazine documents many
correct ideas about dinosaurs.*

As soon as we finished this month’s feature
article, *Discover magazine* gave us three more
pages of dinosaur delusions! Here are the title
and subtitle of their article in this month’s issue.

*When Dinosaurs Went Bad*

*Today’s depictions of agile, often feathered
animals are a far cry from the saggy tail-
draggers of yesteryear. How did early research
get it so wrong?* 10

It isn’t really fair to say the dinosaurs “went
bad.” It wasn’t their fault. A better title would
have been, *When Paleontologists Went Bad.*
That title invites the questions, “When, precisely,
did paleontologists go bad? Were they wrong
before, or are they wrong now? Will they ever get
it right?”

*Discover* doesn’t actually blame Darwin, but
based on what they say, it really was Darwin’s

“Anatomy analysis suggests new dinosaur family tree”,
page 7, https://www.sciencenews.org/sn-
magazine/april-15-2017
9 *ibid.*
10 Gemma Tarlach, *Discover*, “When Dinosaurs Went
Bad”, pp.66-68,
http://discovermagazine.com/2017/may-2017/when-
dinosaurs-went-bad
“Remember the origin of the word dinosaur predates the theory of evolution,” Lamanna says. “Ideas about animal [species] being transitional had yet to materialize. Now we know that dinosaurs are sort of bizarre croc-birds, but back then the concept would have been very hard to imagine.” 11

Have they got it right yet?

Will future *Iguanodon* reconstructions sport feathers? Stay tuned. Despite having a beak and being an ornithischian, or “bird-hipped” dinosaur, the animal isn’t closely related to the lineage that evolved into birds. However, since 2002 paleontologists have unearthed a couple of other ornithischians with primitive bristle or furlike feathers. *Iguanodon* may get yet another makeover. 12

As long as paleontologists need more funding for research, there will be dinosaur makeovers.

---

**Evolution in the News**

**Homo Naledi is Back in the News**

*Where does Homo naledi fit in the human evolutionary tree?*

We told you about *Homo naledi* in our October, 2015, newsletter. 13 At the time, evolutionists didn’t know how *Homo naledi* fit in their fictional evolutionary tree. Now they claim they may know. *New Scientist* provides you with this excellent background summary.

In 2013, Lee Berger at the University of the Witwatersrand in Johannesburg and his colleagues made an extraordinary discovery – deep inside a South African cave system they found thousands of bones belonging to a brand new species of early human — and now we finally may know when this species lived and how it fits into our evolutionary tree.

By 2015 it was becoming clear that the new species, which was named *Homo naledi*, was unlike anything researchers had discovered before. Although parts of its skeleton looked identical to our modern human anatomy, it had some features that were strikingly primitive — including a skull that was only slightly larger than that of a chimpanzee.

But Berger and his colleagues had trouble establishing how old the *H. naledi* fossils were. Without that piece of information, most other researchers agreed that the true significance of *H. naledi* for understanding human evolution was unclear. Guesses have varied from as old as 2 million years to as young as 100,000 years. 14

**Age Matters to Evolutionists**

Evolutionists tend to believe that just because one species is younger than another, the younger species must have evolved from the older species. This is foolish because there is more to it than just chronology. George Washington obviously can’t be a descendant of Abraham Lincoln because Washington was born before Lincoln was; but the fact that Abraham Lincoln was born later doesn’t necessarily prove he descended from George Washington. There must be some sort of evidence of ancestry in addition to the chronology.

Chronology alone can’t prove an evolutionary theory—but chronology can disprove a previous theory (if the new chronology is believed). Because one can’t propose a new evolutionary theory without first disproving the previous one, one has to come up with a new chronology. That’s why chronology is so important to evolutionists.

**It is Hard to Get a Date**

*New Scientist* acknowledges the difficulty in dating fossils.

*Why has it taken so long to establish the age of the fossils?*

It can be surprisingly difficult to work out how old fossil bones are. Many of the techniques researchers can use require the isotopic analysis of bone samples. Berger and his colleagues are reluctant to use these techniques, because they involve destroying small samples of precious fossil material.

Another option is to date the rock or sediment that blankets the layer in which the fossils are found. Ancient lava flows, in particular, contain chemical signatures that are perfect for isotopic dating. But the *H. naledi* remains were found in a cave in which there were no easily dated sedimentary layers covering the fossils.

---

11 *ibid.*
12 *ibid.*
Researchers can also work out the rough age of the fossils by looking at the fossil remains of other species found alongside them, if the age of those other species has already been established. The cave in which the H. naledi fossils were found contains virtually no bones from other species, though, making this approach a nonstarter.\(^\text{15}\)

They found 1,550 H. naledi fossils. Surely they could have destroyed one unremarkable fossil to do isotopic dating on it if they had wanted to. Carbon 14 dating could tell if these bones are less than 5,000 years old, and came from modern humans, but they would not have wanted to find that out. They wanted these fossils to be 200,000 to 300,000 years old. There would be nothing to gain from learning that these fossils are 1,000 years old (for example) so why ask the question if you are afraid of what the answer will be?

In this case, there were no other fossils of “known age,” so it wasn’t tried. If there had been other fossils, dating the H. naledi fossils by ages of other fossils in the same layer would depend upon the unverifiable assumption of the age of those other fossils.

So how did Berger and his colleagues work out the age of the fossils?

We don’t know yet. The scientific papers in which this information will be revealed haven’t been published. The National Geographic interview mentions that Berger and his colleagues have found a second cave chamber containing more H. naledi remains – perhaps these additional fossils were preserved in a context that made dating less challenging.\(^\text{16}\)

They don’t know how the fossils were dated, but they report the new ages (300,000 to 200,000 years old) and ponder what that means.

If the fossils are 300,000 to 200,000 years old what does that mean?

Our earliest hominin ancestors lived at least seven million years ago. The first species to look a little like modern humans appeared between about two and three million years ago.

But our own species – Homo sapiens – evolved about 200,000 years ago.

So, if H. naledi lived 300,000 to 200,000 years ago that’s a remarkable discovery.

It means that a species of human with some surprisingly primitive features – including a tiny skull and brain – survived into the relatively recent past. Conceivably, H. naledi might even have met early members of our species, H. sapiens. One could even speculate we had something to do with it going extinct.\(^\text{17}\)

The headline of the article included the phrase, “why that matters.” Why does it matter?

It probably depends on whom you ask. Based purely on its strange anatomy, H. naledi seems to belong somewhere near the very base of the “true human” family tree – an idea suggested in some studies of the fossils.

But we know that the first early humans appeared more than two million years ago. If H. naledi is just 300,000 years old, some researchers might argue that it can’t belong to the base of our family tree. It’s too young. Perhaps it even had a modern-looking ancestor and later evolved primitive-looking features.

But it is, in fact, still perfectly possible that H. naledi really does belong somewhere near the base of our human evolutionary tree. The species might have evolved more than two million years ago, as one of the earliest “true” humans, and then survived, unchanged, for hundreds of thousands of years.\(^\text{18}\)

The age of the fossils is important because if they are two million years old, they are the “earliest true humans.” But, if they didn’t evolve until 200,000 years ago, there are older human ancestors (if the dates of those ancestors are correct). But, maybe, the first H. naledi really did evolve two million years ago, but didn’t evolve any more for 1.8 million years, when these particular H. naledi individuals died in the cave where they were found. They just don’t know.

But that doesn’t answer the question, “Why does it matter?” The true answer is, “It matters because the controversy is justification for further research—and that requires more funding.”

**The Need to be First**

We are reasonably confident that you remember Neil Armstrong was the first man to walk on the moon. We would be surprised if you remember who the seventh man to walk on the moon was. Being the seventh man on the moon wasn’t as newsworthy as being the first.

In the same way, nobody cares about the seventh-oldest dinosaur discovered. There is an understandable desire for paleontologists to find a dating method that proves their discovery is the oldest (or youngest) ever found. Finding the oldest something-or-other changes what was previously believed about evolution, and makes the discoverer important because he set the record straight!

\(^{15}\) ibid.

\(^{16}\) ibid.

\(^{17}\) ibid.

\(^{18}\) ibid.
Dinosaur Questions and Answers

http://creation.com/dinosaur-questions-and-answers

Why is there so much interest in dinosaurs?

Since the primary focus for the Science Against Evolution newsletter this month is about dinosaurs, this Web Site of the Month is about dinosaurs. When searching the Internet on this topic, I found this Frequently Asked Questions (FAQ) page on the Creation Ministries International website. It provides links to questions and answers the reader may have about dinosaurs.

The FAQ page first provides links to Key articles. Next, the following questions are considered:
1) Did dinosaurs really die out millions of years ago? Were they killed by a meteor? 2) Dinosaur blood cells, blood vessels and proteins: have they been found, and how could they have survived the alleged millions of years? 3) What about dinosaur footprints? 4) Is there evidence that humans and dinosaurs coexisted in the recent past? 5) Were dinosaurs on Noah’s ark? How could they fit? 6) How did dinosaurs live? 7) Did birds really evolve from dinosaurs?

As you can tell from the above list of questions, there is much that is known and unknown about dinosaurs. Under the questions that are listed above you will find numerous links to articles that consider the question. Also in the articles you will find links to Related Articles and References and notes. There really is a lot of material to explore just by following links that you may find of interest.

One area that I found interesting asked the question, “Did a meteor wipe out the dinosaurs?” Here you learn about “The current ‘glamour’ theory proposed by the geologist Walter Alvarez in about 1980, that a meteor strike 66.4 million years ago caused dramatic climatic changes like ‘nuclear winter’. This caused the extinction of the dinosaurs and many other species.” This theory is based on the discovery of an allegedly world-wide layer of clay with a high iridium content. Although there are many problems with the ‘great impact’ theory, “it is now accepted as ‘proven fact’ in many circles, and popularized in ‘documentaries’ such as Walking with Dinosaurs.”

In addition to the ‘glamour theory’ of dinosaur extinction, you will also find a wealth of material to consider about how the extinction of the dinosaurs may have occurred.

You are permitted (even encouraged) to copy and distribute this newsletter.

Disclosure, the Science Against Evolution newsletter, is edited by R. David Pogge.

All back issues are on-line at ScienceAgainstEvolution.info.