



GENESIS
apologetics

The Biblical Case for Dinosaurs:

How Far Will You Walk Down the Biblical
Dinosaur Path?



See our Dinosaur Videos:
www.genesisapologetics.com/dinosaurs/


Man Walked with Dinosaurs?


How far will you walk down the Biblical dinosaur path? Follow these 14 statements to find out!


Secular TV shows, movies, museums, nature parks, and public school textbooks state that dinosaurs evolved around 220 million years ago and went extinct about 65 million years ago. A plain reading of the Bible, however, tells a different story... How far will you travel down the Biblical dinosaur path?





 **Statement #1:** Dinosaurs existed.


 **Statement #2:** A plain reading of the Bible says that God created all living things (Genesis 1, Exodus 20:11, Colossians 1:16, John 1:3). Therefore, God created dinosaurs.


 **Statement #3:** The Bible says that God created all land-dwelling, air-breathing animals on the Sixth Day of Creation, right before He created man (Genesis 1:24-25).


 **Statement #4:** A plain reading of the Bible says that Adam named all the animals after they were created (Genesis 2:20). This means even dinosaurs were brought before Adam to be named.

 **Statement #5:** A plain reading of the Bible says that all animals started out vegetarian (Genesis 1:29-30). Animals, including dinosaurs, turned carnivorous after (and as a result of) the curse of sin and death entered the Creation through Adam and Eve's disobedience.

 **Statement #6:** A plain reading of the genealogies recorded in Genesis chapters 5, 10, and 11 lead directly back to Adam, the first man created on the Sixth Day of the Creation week recorded in Genesis 1. Adding the lifespans and birth years of the patriarchs listed in these chapters leads to the birth of Adam about 6,000 years ago.


 **Statement #7:** God Himself wrote in the Ten Commandments that He created everything (the heavens, earth, sea, and all living animals) in six days (Exodus 20:11). (Exodus 31:18 states that the Ten Commandments were written directly by the hand of God). Putting #6 and #7 together shows that God created dinosaurs about 6,000 years ago, not millions of years ago.


 **Statement #8:** While secular paleontologists estimate the number of dinosaur species around 700, the number of dinosaur ancestors or evolutionary precursors is zero (0). This supports the Biblical view that dinosaurs were uniquely and instantly created by God, and did not evolve over millions of years.¹


 **Statement #9:** A plain reading of the Bible says that God's "chief" or "first in rank" of God's creative works was "Behemoth" (Job 40) and a plain interpretation of the 14 characteristics that describe this animal match a sauropod dinosaur that was "made along with" man (verse 40:15) (see table below).

Man Walked with Dinosaurs?


“Behemoth” Description from Job 40 Compared to Hippos and Elephants²


Behemoth Description (Job Ch. 40)			
1 - “made along with” man	YES	YES	YES
2 - eats grass like an ox	YES	YES	YES
3 - strength in hips/stomach muscles	YES	NO	YES
4 - He moves his tail like a cedar	YES	NO	NO
5 - sinews of his thighs are tightly knit	YES	YES	YES
6 - bones are like beams of bronze	YES	NO	NO
7 - ribs like bars of iron	YES	MAYBE	MAYBE
8 - “chief/first” in rank of all God’s creations	YES	NO	NO
9 - mountains yield food for him, and all the beasts of the field play there	YES	MAYBE	NO
10 - Lies under lotus trees, in reeds/marsh	YES	NO	MAYBE
11 - lotus trees cover him with their shade; willows by the brook surround him	YES	YES	YES
12 - The river may rage, yet he is not disturbed	YES	NO	NO
13 - He is confident, though the Jordan gushes into his mouth	YES	MAYBE	MAYBE
14 - unapproachable by anyone but its maker	YES	NO	NO

 **Statement #10:** The Bible says that all land-dwelling, air-breathing animals died in a worldwide Flood (save those on Noah’s Ark) (Genesis 6:7, 7:20-23). Part of the reason for this worldwide extinction event was that “all flesh” (including animals) had “corrupted their way on the earth” (Genesis 6:12).

 **Statement #11:** Fossils representing over 100,000 individual dinosaurs have been found, and about 97% of these have their bones separated or smashed, buried in mud layers that later turned to rock.³ This “dinosaurs buried in mud” phenomena is found worldwide based on research in the paleontology field—see, for example: www.fossilworks.org.

 **Statement #12:** Believing either a “literal/historical” account of the Biblical view on dinosaurs or the evolutionary view, which holds that dinosaurs lived between 65 and about 220 million years ago, requires faith. Observational science is limited in proving either view.

 **Statement #13:** Believing the evolutionary view of dinosaurs (i.e., that they went extinct about 65 million years ago) requires one to believe in the *untestable assumptions* of radiometric dating (because radiometric dating is used to date the rocks surrounding dinosaur fossils). Because the assumptions behind this method (e.g., amount of parent/daughter elements present when formed, rate of decay, etc.) cannot be verified with *observational* science, faith is required for this belief. Further, radiometric dating continues to fail when validating to rocks of *known* ages.⁴

 **Statement #14:** Within the last 50 years, at least 14 original biomaterials like proteins have been discovered in dinosaur remains that were previously thought to not possibly last even one million years.^{5,6} These include:

Man Walked with Dinosaurs?

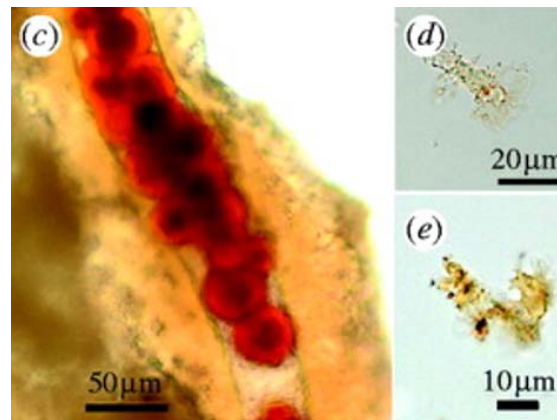
14 Recently Discovered Dinosaur Biomaterials That Can't Last Millions of Years!

1 - Red Blood Cells⁷

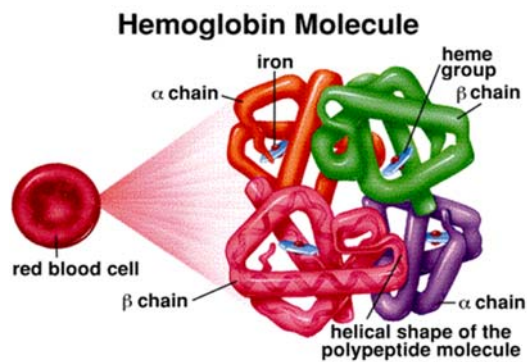


Light micrograph of one of the red blood cells inside a *T. rex* bone marrow blood vessel. Image credit: Mary Schweitzer. Copyright © 2005 AAAS. Adapted for use in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holders.

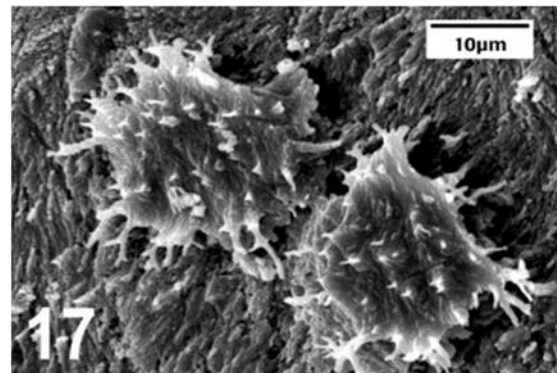
2 - Blood Vessels⁸



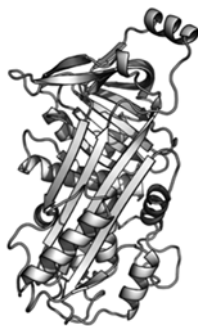
3 - Hemoglobin⁹



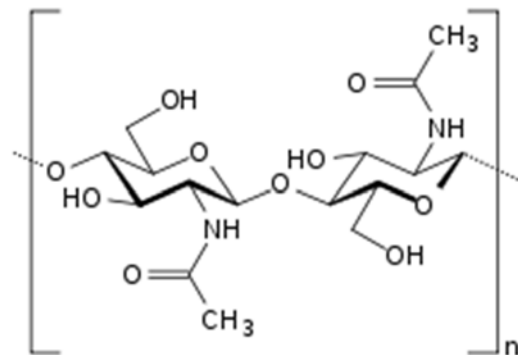
4 - Bone cells (osteocytes)¹⁰



5 - Ovalbumin (proteins)¹¹



6 - Chitin¹²

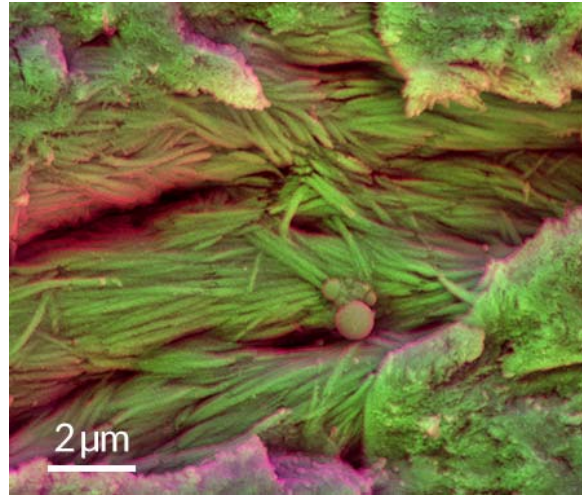


Man Walked with Dinosaurs?

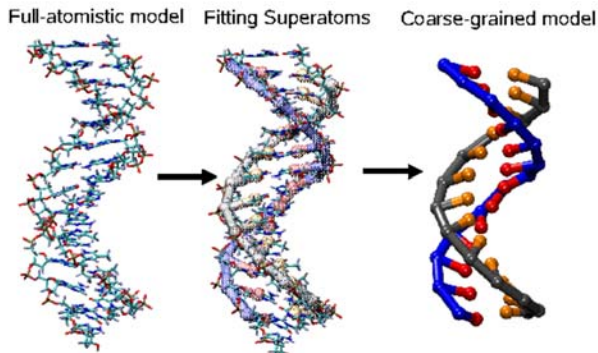
7 - Un-mineralized Bone¹³



8 - Collagen¹⁴



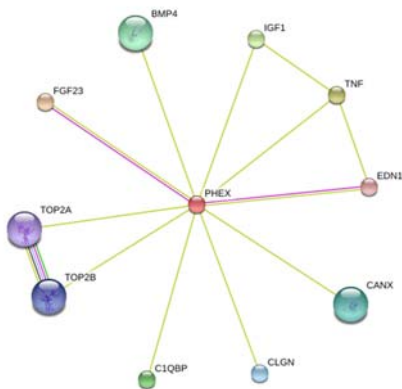
9 - DNA (limited)¹⁵



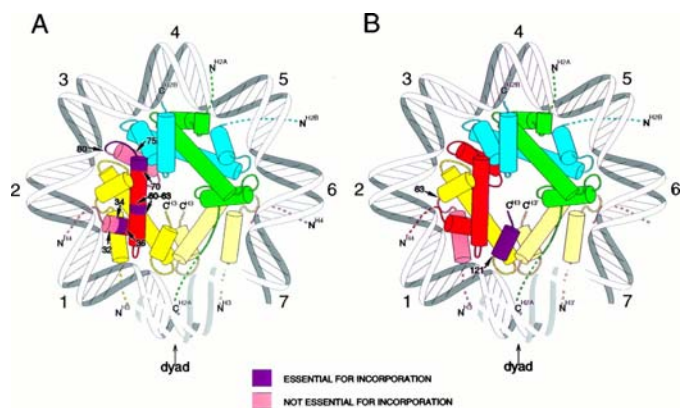
10 - Skin Pigments¹⁶



11 - PHEX (proteins)¹⁷

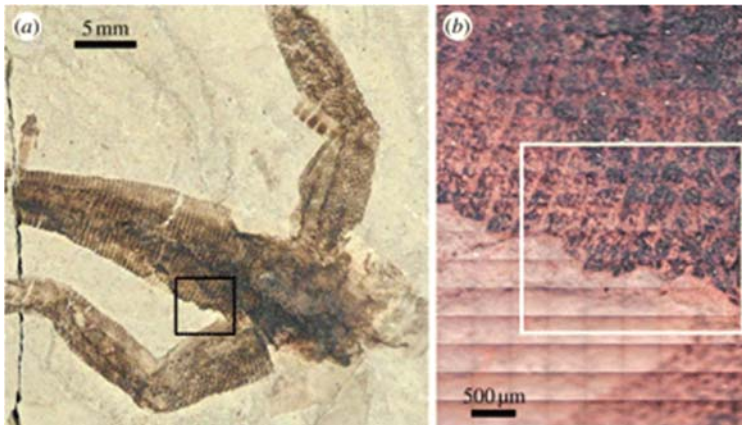


12 - Histone H4 (proteins)¹⁸

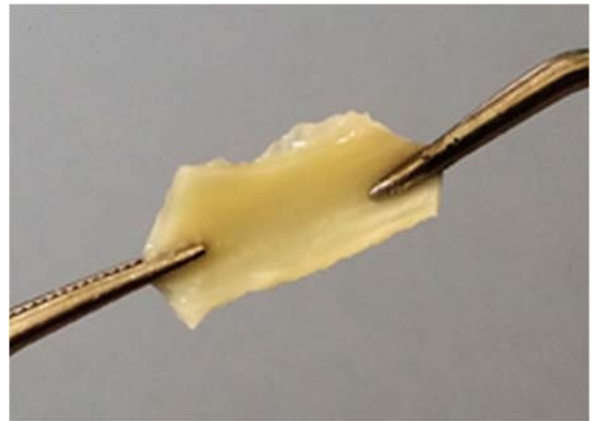


Man Walked with Dinosaurs?

13 - Keratin (structural protein)¹⁹



14 - Elastin²⁰



Before these discoveries (and even after), the vast majority of evolutionary scientists held that these materials could only last for tens of thousands of years, and not millions.²¹

We believe these 14 steps frame a line of reasoning that show dinosaurs were instantly created by God on the Sixth Day of Creation just 6,000 years ago.

Does the Bible Mention Dinosaurs?

The Book of Job (the oldest book of the Bible, written about 3,500 years ago²²) refers to Behemoth—a sauropod dinosaur—as the “chief” or “first in rank” of all God’s creation. Consider the description of this animal from Job 40:6–24:

Then the Lord answered Job out of the whirlwind, and said: “Now prepare yourself like a man; I will question you, and you shall answer Me... Look at Behemoth, which I made along with you and which feeds on grass like an ox. What strength it has in its loins, what power in the muscles of its belly! Its tail sways like a cedar; the sinews of its thighs are close-knit. Its bones are tubes of bronze, its limbs like rods of iron. It ranks first among the works of God, yet its Maker can approach it with his sword. The hills bring it their produce, and all the wild animals play nearby. Under the lotus plants it lies, hidden among the reeds in the marsh. The lotuses conceal it in their shadow; the poplars by the stream surround it. A raging river does not alarm it; it is secure, though the Jordan should surge against its mouth. Can anyone capture it by the eyes, or trap it and pierce its nose?”

In context, Job and his philosopher friends just finished over 30 chapters of dialogue trying to explain God and why He would allow such hardships into Job’s life. Then God shows up in a whirlwind, tells Job to “brace himself like a man” and says that He would be the one asking Job the questions for a while (“Gird up thy loins now like a man: I will demand of thee, and declare thou unto me...” KJV). Then, for four chapters straight, God asks Job 77 rhetorical questions that are all about Creation. After explaining to Job that He is the master designer of space and earth, God describes 13 of His created animals, such as an ostrich, horse, and deer, then caps off the discussion by telling Job about His two grandest creations: Behemoth and Leviathan. God calls Behemoth the “first of all of His ways,” using the Hebrew term (*re’shiyth*), which means *first in a rank*, the *chief*, the *most supreme* of His creative works.

When God says to Job, sit down, brace yourself, and now I will tell you of the chief of all my works—the biggest, most amazing land creature I ever made—he’s not talking about a

Man Walked with Dinosaurs?

common animal like a hippo or a crocodile. When we scan through all land-dwelling creatures—both living and extinct—which one comes up as the “first in rank,” the most colossal or the chief? Clearly the sauropod dinosaur. Pairing God’s Word that Behemoth is the grandest creature He ever made with the fact that sauropods are the largest land creatures we’ve ever found should give us a clue to Behemoth’s identity.

Sauropods were huge. The largest one found to date (named *Patagotitan mayorum*) was over 120 feet long—that’s 10 freeway lanes across! At a weight of 76 tons, it’s a wonder these creatures could even walk! Let’s start by looking at one of their unique design features: their long necks.

The necks of the sauropod dinosaurs were by far the longest of any animal, six times longer than that of the world record giraffe and five times longer than those of all other terrestrial animals.²³



Figure 1. *Mamenchisaurus* a Type of Sauropod Dinosaur.²⁴

The engineering required for a living creature to have such a long neck has perplexed dinosaur researchers for years—the physics just don’t seem to work because the necks would be too heavy for their length. Leading sauropod researcher, Dr. Matthew Wedel notes: “They were marvels of biological engineering, and that efficiency of design is especially evident in their vertebrae, the bones that make up the backbone.”²⁵ After spending years studying the long necks of sauropods, Dr. Wedel made a discovery that was so significant it earned him the Fourth International Award in Paleontology Research. In short, Dr. Wedel revealed that the vertebrae of these massive sauropods were pneumatic—they were *filled with air!*²⁶

Man Walked with Dinosaurs?

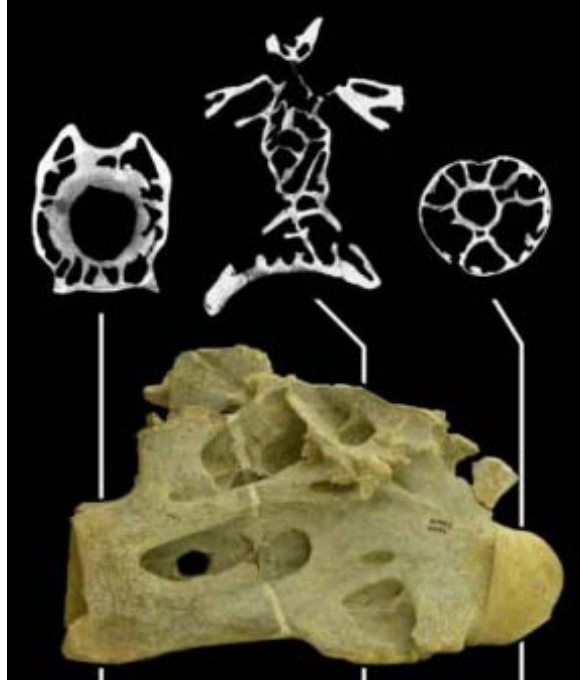


Figure 2. Apatosaurus Vertebra Showing Most of Its Space Filled with Air Cavities.²⁷

Dr. Wedel started researching these air-filled vertebrae as an undergraduate researcher in Oklahoma, where he spent his Saturdays running dinosaur bones through the CT scanner at his local hospital. There, he discovered that “one of Sauropod’s four and a half foot vertebrae would have been surprisingly light and could reach 90% air by volume!”²⁸



Figure 3. A 4-1/2-Foot Sauropod Vertebra That Could Reach 90% Air by Volume.

More exhaustive studies by Dr. Wedel and others have revealed that the vertebrae of most sauropods were often 50–60% air by volume, with some as high as 90% (see Figure 3).²⁹ While Dr. Wedel estimates that this would only reduce the overall weight of some of these creatures by 8–10%, most of the weight would be removed from the critical areas of the neck, where extra weight would have been challenging for the creature to lift its head, eat, or turn around.

Man Walked with Dinosaurs?

Yet there's more—these big creatures needed *light* vertebrae to enable them to lift their heads—but these extra-long necks also needed to be *designed* in such a way that the animal could eat, drink, and move its head without its neck folding in half or pinching vital nerves or even the trachea (for breathing) or esophagus (for eating). Having an extra-light structure was only part of the solution.

Take a close-up look at the neck vertebrae of these creatures (shown in Figure 4). Do you notice the shape of the vertebrae, and how they have protruding bones that face the same direction?



Figure 4. Royal Tyrrell Museum (Author)

Each of these protruding structures served as anchoring points for the connective soft tissue that held the neck together. Dinosaur researchers have also tried to figure out how the tendons, ligaments, and muscles must have been assembled for this creature to have a stable neck system. They've even proposed several complex models that try to demonstrate how everything might have fit together (Figure 5).

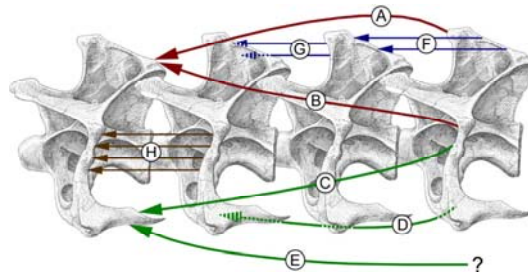


Figure 5. Sauropod Vertebrae (Taylor & Wedel, 2012).³⁰

Taylor and Wedel developed a model showing what the connections that hold together the vertebrae might have looked like (Figure 5). The muscle passing behind the bone is shown using dashed lines; muscles inserting on the epiphyses (attachment areas for several neck muscles) are shown with lines C, D, E; muscles inserting on the cervical ribs are shown with lines F and G; and muscles inserting on the neural spine are shown with line H.

Does this look complicated? Yes, indeed—but that's only the *muscular* system. The *ligaments* and *tendons* still need to fit into the design in an amazing way for this creature to *swallow* and *breathe* through this complex neck system.

Man Walked with Dinosaurs?

For this creature to eat, breathe, and move its long neck, the 12+ neck vertebrae³¹ of sauropods had to be *interlocking* and *twistable*. Further, the vertebrae had to have anchoring points in *just the right places* for muscles and ligaments to connect in such a way to prevent the neck from pinching veins, nerves, trachea, and the esophagus.

While their air-charged vertebrae may solve the puzzle of how they could lift and move their massive heads and necks, it doesn't solve the challenge of how they could possibly inhale enough oxygen through their tiny nostrils, which were only about twice the size of those on a living horse! How can a 140,000+ pound animal inhale enough oxygen through such tiny nostrils? Perhaps they thrived better in a world before Noah's Flood when the oxygen levels were likely higher. We'll cover more on this topic later.

God even describes Behemoth's diet: eating grass like an ox. In 2005 researchers found grass in sauropod coprolites in India, and some palaeobotanists are even saying that this will cause a "rewrite in our understanding of dinosaur evolution," because evolution holds that grass didn't evolve until millions of years after the dinosaurs had gone extinct.³²

God describes Behemoth's strength in his hips, and power in his stomach muscles. Again, we have a strong clue that Behemoth was a sauropod dinosaur because, while many animals have strong hips and stomach muscles, none were as strong as the sauropod! The muscular structure around the hips and stomach that were necessary for sauropods to move, walk, turn, and eat would be incredible! In fact, for some sauropods, like the Diplodocus, its highest point of its core body was the hips and its whole body balanced on the hips, front-to-back. Diplodocus was able to rear up on its back legs and balance on its tail like a tripod, making use of the hips to support not just the back half of its body, but the front half, too. This required enormous strength in the hip and stomach muscles, considering they lifted tons of its own body into the air. Below the hips was an incredible weight distribution system that went from a massive femur (which in some cases was nearly 8 feet long), to two shin bones, then five foot bones, and then five toes.

Behemoth's tail also closely matched those of sauropods. God describes that he "moves his tail like a cedar tree" and follows this by stating, "the sinews of his thighs are tightly knit." Paleontologists have learned from the muscle attachment locations in their bones that the tightly-knit structure of Behemoth's thighs and hips actually made his tail sway from side-to-side with each step, much as a cedar tree does when it sways in the wind!³³ Tail drag marks are only rarely found behind sauropod footprints, indicating their tails were raised while they walked. It's difficult to think of a creature that fits this Biblical description better than a sauropod dinosaur.

God describes his bones "like beams of bronze." Most Bible versions translate this phrase as "tubes of bronze," "conduits of bronze," or "pipes of brass," which conveys both "strength" and being hollow like a channel or a tube. This matches the fact that sauropods had the largest leg bones of any animal, and they are in fact just like tubes of metal, having a hard outer casing and spongy marrow and veins on the inside.

Then God says that its "ribs are like bars of iron." Unlike much of the sauropod's skeleton that was spongy and filled with air for weight savings, its ribs were *fully ossified*—they were made of solid bone!³⁴ Again, there is a perfect match between God's description of Behemoth and a sauropod dinosaur.

God even describes Behemoth's habitat: "He lies under the lotus trees, in a covert of reeds and marsh. The lotus trees cover him with their shade" and "The willows by the brook

Man Walked with Dinosaurs?

surround him.” This was a creature that had to be near lots of green food—living in a lush, tropical environment. Large sauropods had to eat a half a ton of vegetation every day, and they likely had to eat all day long to consume this amount of food.

Next God says: “Indeed the river may rage, yet he is not disturbed; He is confident, though the Jordan gushes into his mouth.” Why would God point out that this animal can stand in a rushing river? Lots of animals can do this, depending on the size of the rushing river. In this case, God said, “the river may *rage*, yet he is *not disturbed*” and that Behemoth is confident even though this raging river should gush into his mouth. The Jordan river is the largest river in Palestine and it currently flows at only 15% of the rate it flowed in the past.³⁵ Even so, in the winter this river would be incredibly difficult to cross, and it would take a *very* sizable animal to stand *undisturbed* in the rushing current and, even more, let the current gush into its mouth! Some of the larger sauropods stood over 20 feet at the shoulders and weighed over 70 tons. Creatures of this size and mass could withstand a raging river better than any others.

Even with all this evidence, some say that Behemoth was a just a mythical creature. Why would God try to display His awesome creative power by describing something that never existed? Anyone can do that. And why would God say that Behemoth was the “chief” of all His creations after describing 13 real, still-living animals in the same passage? Why go through all the trouble to describe Behemoth as a grass-eating animal that lies peacefully in the shadow of the river plants along with his physical description, diet, and habitat—all of which happen to fit a known creature: a sauropod dinosaur?

Certain Bible footnotes³⁶ state that Behemoth was a hippo, elephant, or crocodile but these do not come close to matching all 14 characteristics God used to describe Behemoth. They certainly are not the “first in rank” or “chief” of God’s creations. Would God tell Job to “gird up his loins” to behold the “chief of his creations” just to show off a hippo? An elephant? These creatures were plentiful! They also don’t have tails that sway like cedar trees, and both of these animals have been captured and killed by man throughout history.

God says that only Behemoth’s Creator can approach him, that he cannot be captured by humans when he is on watch, and that no one can use barbs to pierce his nose. These impossibilities fit sauropod dinosaurs better than other animals because of their towering heads and huge size. With a head that reached over 40 feet high, it could see people coming from far away. Its massive tail also makes him unapproachable. Based on what we know from fossils, some sauropods could cover a 200-foot circle with deadly force using their tails which could be over 50-feet long and weigh over 13,000 pounds.³⁷ Studies have shown that some sauropods could probably create sonic booms with their tails—just like a whip.³⁸

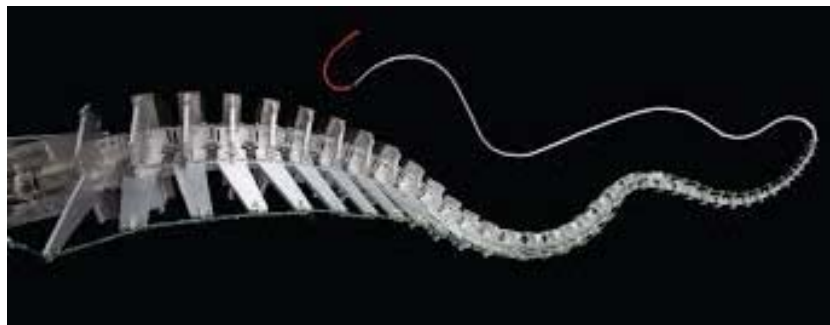


Figure 6. Study Demonstrated that Sauropod Tails Could Create Sonic Booms (D. Sivam / P. Currie / N. Myhrvold)

Man Walked with Dinosaurs?

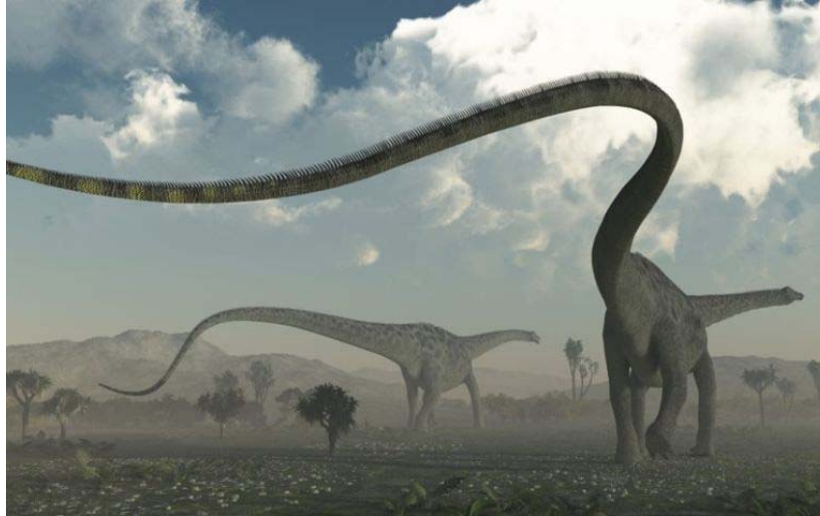


Figure 7. Behemoth's Tail Was One Reason Behemoth Was Unapproachable by Anyone but God, His Creator³⁹

It's not by chance that God says to Job that Behemoth can *only be approached by his creator*. Good luck even getting near this creature to put a snare in its nose. To this day, elephants and hippos are surrounded by hunters and killed, but sauropods better fit this passage because they are simply unapproachable.

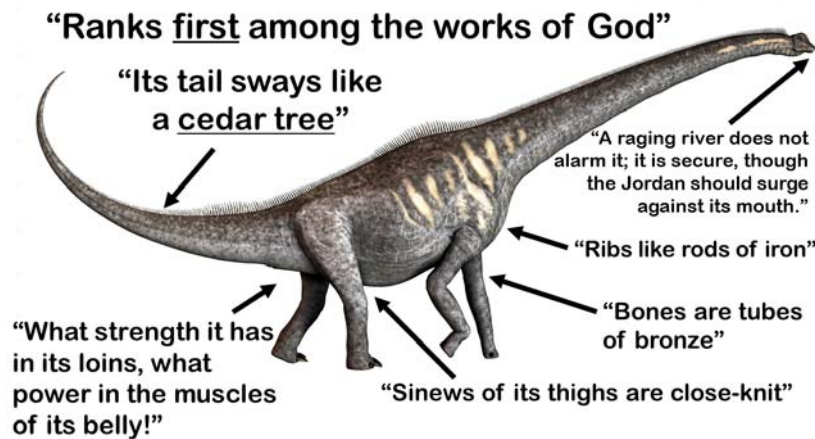


Figure 8. Behemoth in Job Chapter 40.

All of these incredible design features had to be present for these creatures to live. And the fact that these features—weight-bearing hips, legs, feet, and toes, incredible air-filled vertebrae, and others—show up already formed in the ~300 sauropods that have been found! Yes, there is variability within the sauropod kind, but these animals have been grouped by these (and other) common design characteristics. If God Himself created these animals and placed them on the Earth, then no wonder they had every aspect of their essential design features already in place and fully integrated from the start.

See our Dinosaur Videos:
www.genesisapologetics.com/dinosaurs/

VISIT OUR STORE:
WWW.GENESISAPOLOGETICS.COM/STORE

Debunking Evolution Program

Equip your Christian student for evolution teaching in public school! This 6-lesson video program trains 7th – 12th grade students how evolution theory doesn't hold up to either "real" (observational) science or the Bible. Includes three hours of training that debunk the 10 main pillars of evolution that are taught in (secular) world history, life science, and biology classes. Includes source book, student workbook, and DVD. Great content to teach students before they leave for college!



Other Resources

**Our FREE Mobile App
Dozens of Free Videos!**

The **NEW** Genesis Apologetics
Mobile App!



Download our new mobile app for **FREE!**
 This app addresses most evolutionary topics covered in public school between 5th and 12th grades in an exciting, educational video format!

Sections include:

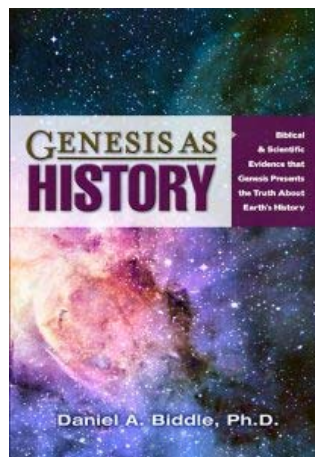
- ✓ Did Humans Evolve?
- ✓ Debunking Evolution Theory
- ✓ Fossils & Transitional Forms
- ✓ Does Science "Prove" Evolution?
- ✓ The Age of the Earth & The Bible
- ✓ What about Dinosaurs?
- and more...

GENESIS
apologetics

Download today for Android and iPhone.



**Convincing Evidence
That Genesis is Real History**



**How do Dinosaurs
Fit into the Bible?**



Man Walked with Dinosaurs?

Endnotes

- ¹ Werner, C. *Evolution: The Grand Experiment* (Volume 1, The Quest for an Answer) (2014). See more at: <http://www.thegrandexperiment.com>
- ² Hippos and elephants are used by comparison because some study bible notes point out these animals as possibilities.
- ³ Werner, *Evolution: The Grand Experiment* (2014).
- ⁴ Biddle, Dan. *Genesis as History* (2016). Genesis Apologetics.
- ⁵ Thomas, B. 2015. Original Biomaterials in Fossils. *Creation Research Society Quarterly*. 51: 234-347.
- ⁶ Phosphate-regulating neutral endopeptidase, X-linked (see: <https://news.ncsu.edu/2012/10/tpschweitzer-bone/>)
- ⁷ Pawlicki R, Nowogrodzka-Zagorska M 1998 Blood vessels and red blood cells preserved in dinosaur bone. *Ann. Anat.* 180, 73–77. MedlineWeb of Science.
- ⁸ <http://rspb.royalsocietypublishing.org/content/274/1607/183>
- ⁹ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC21042/>
- ¹⁰ http://www.creationmoments.com/sites/creationmoments.com/files/pdf/Armitage_Triceratops_final.pdf
- ¹¹ Thomas, 2015.
- ¹² Thomas, 2015.
- ¹³ <http://creation.com/unpermineralized-hadrosaur-bones-alaska>; <http://frontierscientists.com/2015/10/alaska-dinosaur-new-species-hadrosaur-ugrunaaluk-kuukpikensis/?v=7516fd43adaa>
- ¹⁴ <https://student.societyforscience.org/article/more-dinosaur-bones-yield-traces-blood-soft-tissue>
- ¹⁵ Thomas, 2015.
- ¹⁶ Thomas, 2015; <http://www.geek.com/news/dinosaur-skin-color-to-be-determined-using-a-synchrotron-1553504/>
- ¹⁷ <https://answersingenesis.org/dinosaurs/bones/preservation-of-cellular-proteins-dinosaur-fossils/>; <https://news.ncsu.edu/2012/10/tpschweitzer-bone/>
- ¹⁸ <http://www.ncbi.nlm.nih.gov/pubmed/23085295>
- ¹⁹ While dinosaur Keratin has been found (e.g., <http://www.dailymail.co.uk/sciencetech/article-2517009/Mystery-dinosaurs-beaks-solved-Hard-snouts-stopped-skulls-deforming-chewed-food.html>), the image is based on lizard skin that supposedly dates to 50 million years ago (<http://rspb.royalsocietypublishing.org/content/278/1722/3209>). See also: <https://www.icr.org/article/6085/>
- ²⁰ M.H. Schweitzer, W. Zheng, C.L. Organ, R. Avci, Z. Suo, L.M. Freimark, V.S. Lebleu, M.B. Duncan, M.G. Vander Heiden, J.M. Neveu, W.S. Lane, J.S. Cottrell, J.R. Horner, L.C. Cantley, R. Kalluri, and J.M. Asara. “Biomolecular characterization and protein sequences of the campanian Hadrosaur *B. Canadensis*.” *Science*, 324 (2009): 626–631.
- ²¹ <http://discovermagazine.com/2006/apr/dinosaur-dna>.
- ²² “Fast Facts about the Bible.” *Bibleresources.org*: <http://bibleresources.org/bibleresources/bible-facts/> (January 26, 2017)
- ²³ M. P. Taylor and M. J. Wedel. “Why sauropods had long necks; and why giraffes have short necks.” *PeerJ* 1: (2013), e36.
- ²⁴ Image Credit: Wikipedia (<https://en.wikipedia.org/wiki/Mamenchisaurus>) (January 26, 2017).
- ²⁵ M.J. Wedel, “Aligerando a los gigantes (Lightening the giants).” *iFundamental!* 2007, 12:1–84. [in Spanish, with English translation]
- ²⁶ See also: “Mechanical implications of pneumatic neck vertebrae in sauropod dinosaurs.” Daniela Schwarz-Wings, Christian A. Meyer, Eberhard Frey, Hans-Rudolf Manz-Steiner, Ralf Schumacher *Proc. R. Soc. B* 2010 277 11–17.
- ²⁷ Wedel, 2007.
- ²⁸ University of California Museum of Paleontology, Matt Wedel: Hunting the inflatable dinosaur www.ucmp.berkeley.edu/science/profiles/wedel_0609.php (January 26, 2017).
- ²⁹ Taylor & Wedel, 2013.
- ³⁰ Taylor & Wedel, 2013.
- ³¹ Different types of sauropods had more or fewer vertebrae.
- ³² David Catchpoole, Grass-eating dinos: A ‘time-travel’ problem for evolution (www.creation.com/grass-eating-dinos) (August 22, 2017); Brian Thomas, Dinosaurs Ate Rice, www.icr.org/article/6428/ (August 22, 2017).
- ³³ Nicole Klein, Kristian Remes, Carole T. Gee, and P. Martin Sander, *Biology of the Sauropod Dinosaurs Understanding the Life of Giants* (Indiana University Press, 2011).
- ³⁴ M. Hallett & M. Wedel, *The Sauropod Dinosaurs: Life in the Age of Giants*, (Johns Hopkins University Press, 2016).
- ³⁵ Patrick Moser, Jordan River could die by 2011, *Phys Org*. www.phys.org/news/2010-05-jordan-river-die.html (May 2, 2010) (August 22, 2017).
- ³⁶ See, for example, the English Standard Version or the Life Application Study Bible notes.
- ³⁷ J. Carballido, D. Pol, A. Otero, I. Cerda, L. Salgado, A. Garrido, J. Ramezani, N. Cúneo, M. Krause, A new giant titanosaur sheds light on body mass evolution amongst sauropod dinosaurs, *Proceedings of the Royal Society B* (August 9, 2017).
- ³⁸ Nathan P. Myhrvold and Philip J. Currie, Supersonic Sauropods? Tail Dynamics in the Diplodocids, *Paleobiology* 23 (December, 1997): 393–409; Benjamin Meyers, W. Wayt Gibbs, Did a Dinosaur Break the Sound Barrier before We Did? www.scientificamerican.com/video/did-a-dinosaur-break-the-sound-barrier-before-we-did/ (November 3, 2015).
- ³⁹ Dattatreya Mandal, *Hexapolis*, Physical Model To Show How Dinosaurs May Have Whipped Their Tails In Supersonic Speed (October 16, 2015). www.hexapolis.com/2015/10/16/physical-model-to-show-how-dinosaurs-may-have-whipped-their-tails-in-supersonic-speed