

WHAT IS A DINOSAUR?

AND ARE ANY ALIVE TODAY?

Dinosaurs vs non-dinosaurs

CURIOSITY ABOUT dinosaurs knows no age limit. But before we can properly discuss any topic, we must define terms. The popularization of the term ‘dinosaur’ has led to overly broad usage. It is even used informally, e.g., to indicate someone is old and not up with current trends! More than any other creature, dinosaurs have been more or less equated with evolution.

Invention of the term dinosaur

Despite the connections with vast age and evolution, the word ‘dinosaur’ itself is modern—and was invented by an anti-evolutionist. Richard Owen (1804–1892), arguably the leading paleontologist and anatomist of his day, coined it in 1841. Although not a biblical creationist, he was one of the strongest opponents of Charles Darwin (1809–1882) and his theory of evolution by natural selection!

In Owen’s day, scientists were discovering fossils of some very unfamiliar creatures, including *Megalosaurus*, *Iguanodon*, and *Hylaeosaurus*. Owen noted the commonality of features in these three, distinct from any living creatures. So he categorized them into a then-new group of reptiles, the Dinosauria,

marking the first time ‘dinosaur’ was used descriptively. Owen coined the term from Greek, δεινός (*deinos*), meaning “terrible, potent, or fearfully great”, and σαῦρος (*sauros*), meaning “lizard/reptile”.

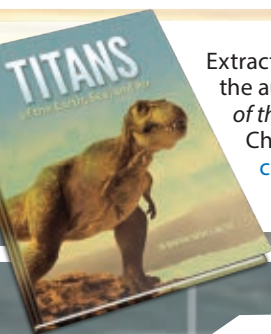
Of course, the word ‘dinosaur’ would not be expected in English Bible translations. After all, the term was coined 230 years after the famous King James Version of 1611 (which was not even the first English Bible). But as we have shown previously, the creatures we now call dinosaurs are in the Bible.¹

So what are some unique features of dinosaurs?

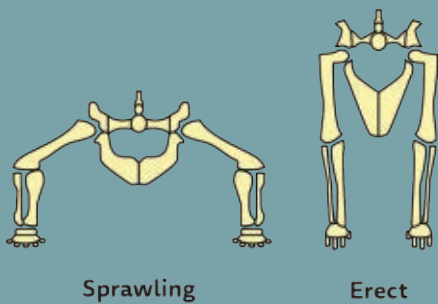
Erect posture

Dinosaurs’ column-like legs underneath their bodies allowed them to walk upright and aided some in supporting their great weight. Crocodiles and lizards instead have sprawling legs that stick out from the side, meaning they waddle when they walk (see fig. 1).

So it is incorrect to call creatures such as large crocs or the Komodo lizard ‘dinosaurs’—their leg posture is too different. Similarly, the flying reptiles (pterosaurs) lack column-like legs, so they



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Fig. 1. Dinosaurs are reptiles with a unique hip anatomy that allows them to walk upright.

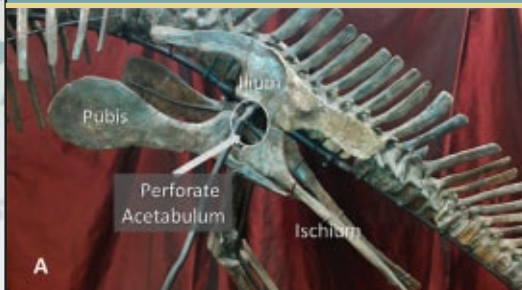


Fig. 2. Perforate acetabula in dinosaurs. A) Steel armature travels through the perforate acetabulum seen in an original fossil juvenile *Edmontosaurus*. Bones of the ornithischian hip girdle are also labelled. B) Human fingers extend through the open acetabulum in a replica fossil adult *Stegosaurus* (also order Ornithischia). The acetabulum is proposed as an anatomical indicator to distinguish between extinct fossil birds and dinosaurs. Note also the prominent caudal spinal processes for tail muscle attachments. Birds lack these processes. Photos: Dr Brian Thomas, creation.com/feathered-dinosaur-debate.

are not ‘flying dinosaurs’. For the same reason, marine reptiles, such as pliosaurs, plesiosaurs, ichthyosaurs, and mosasaurs are not ‘marine dinosaurs’.

Perforate acetabulum

Dinosaurs’ erect posture results from their hip and femur (thigh bone) design. The hip comprises three bones: the *ilium*, *ischium*, and *pubis*. The three bones’ joining place is the *acetabulum*. In most creatures, the acetabulum is a concave surface for the head of the femur (thigh bone). Its shape explains the name, a Latin word for ‘little vinegar cup’. But in almost all dinosaurs (except for some ankylosaurs and *Marasuchus*), the three bones surround a hole, meaning it’s *perforate* (completely open) and not ‘cup-like’ (see fig. 2).

The femur has a small projection (*process*) almost perpendicular from the main bone. This *femoral process* turns inwards to fit into the perforate acetabulum. This design enables the thigh to swing vertically throughout its movement.

One academic site states, “Dinosaurs are unique among all tetrapods [four-legged creatures] in having this perforate acetabulum.”²

Another unique feature of dinosaur hips is the supra-acetabular crest, i.e., a lip on the top of the acetabulum (ilium). This bony lip prevents dislocation of the hip

socket. In particular, birds do not have a fully open acetabulum, so they should not be called ‘dinosaurs’.³

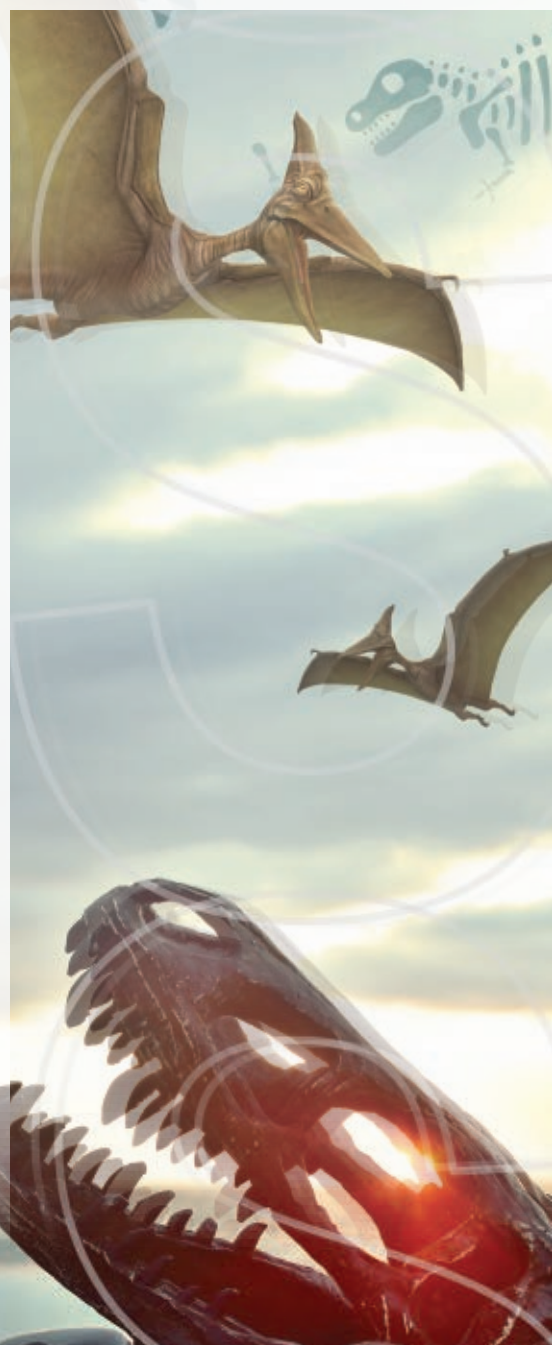
Now we have properly defined the term ‘dinosaur’. So we are in a position to answer the question: Do any creatures that fit that description exist today?

Are dinosaurs alive today?

Biblical issues

The Bible and science both inform us that the earth is not millions of years old. The Bible specifically tells us that God created many different ‘kinds’ of living organisms during Creation Week. Furthermore, the Bible states that two of every (unclean) kind of land vertebrate were on Noah’s Ark. This entails that dinosaurs were on the Ark; therefore, humans lived with dinosaurs before, during, and after the Flood.

Dinosaurs living today would be *consistent* with the Bible, but the Bible doesn’t *require* living dinosaurs. God never guaranteed Noah that every kind on the Ark would stay alive thousands of years after the Flood. In fact, more than half of the Ark animals went extinct. One study estimates 1,398 Ark kinds, and 772 became extinct—55%. In fact, 71% of mammal kinds disappeared.⁴





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Cryptozoology

Cryptozoology is the study of hidden animals (from Greek κρυπτός/*kryptos* = hidden; ζῷον/*zōon* = living creature, animal). It is an attempt to prove that creatures widely regarded as extinct or imaginary are actually alive but merely hidden. Such creatures are called ‘cryptids’. For example, people might have heard about Mokele-Mbembe, which some have claimed to be a sauropod-like creature living in the Congo basin of Africa.

At CMI, we have printed multiple articles on cryptozoology over the years. This was based on the information then available, and is not regretted in hindsight. Reporting responsibly and cautiously on alleged eyewitness accounts is not unreasonable, so long as it is not overdone or exaggerated. However, even though the evidence needed to be recorded, we have now had decades to verify the claims. To date, not a single one has been confirmed. We strongly suggest using wisdom and discernment

here, allowing old ideas to be retired and focusing on the best current ideas.

Testimonies are not proof

Much of the crypto material cannot be scientifically documented since they are just personal testimonies. Second-hand and third-hand testimonies are not scientific evidence. Even first-hand evidence is tricky, and lying scientists of the past have misled many a person.⁵ Also, even honest people can be prone to confirmation bias, so they ‘see’ what they are expecting to see. Our rule of thumb should be not to trust any testimony unless backed up by solid evidence (i.e., catch one!). We need to maintain high standards and not fall prey to wishful thinking.

Problems for large animals

Large animals need large populations if the species is going to persist for centuries. Where are they? Humans live all over the world. Satellite imagery has enough resolution to see large animals from space, including elephants and whales. Why no large dinosaurs? They can’t be in sparse desert environments such as the Australian outback because they need so much food.

And the marine reptiles (e.g., ‘Nessie’) were air-breathing, meaning they needed to be at the surface most of the time. We

know that giant marine mammals (whales) exist precisely because we have seen them surface to breathe. Conversely, the giant and colossal squid evaded detection until recently, because they can live in very deep water. But we have fishing boats anywhere in the oceans where there are fish, and human eyeballs and video cameras cover most coastlands. Similarly, Loch Ness has lots of tour boats, and hotels on its shores. If Nessie were a plesiosaur, it is unlikely to be alive today.

Does it even matter?

We must ask, however, why this is so important for biblical creation. If a living dinosaur species were found, evolutionists would still not change their minds. We know this because many other ‘living fossils’ have been discovered.

A good example is the coelacanth, once thought to have died out with the dinosaurs because they were found in supposedly dinosaur-age rocks older than 66 Ma (million years). However, the coelacanth is now known to be alive and well. Live coelacanths have been found in seas around both Africa and Indonesia. Finding a live coelacanth should have been as problematic as finding a living dinosaur, but evolutionists didn’t change their minds. They just assumed that it had been living all this time and somehow wasn’t buried in any rock layers younger than 66 Ma.

And there is the *Wollemia nobilis*, commonly called ‘Wollemi pine’ (although it is not a pine). Fossils of the Wollemi pine have secular dates assigned from 2 Ma,⁶ all the way back to at least 100 Ma (Cretaceous).⁷ In 1994, the tree was found growing in Wollemi National Park in Australia’s Blue Mountains.⁸ Once again, evolutionists needed a ‘just-so-story’ of how Wollemi pines existed for millions of years but somehow managed to avoid being buried in any rock layers younger than that.



Many evolutionists think that biblical creation is falsified unless we find dinosaur fossils with human fossils. But just because things live at the same time, it doesn't entail that they will be fossilized in the same layer. Whales and coelacanths clearly live in the sea today, but they are never found fossilized together.

Evidence

Photographs, animals in a cage, DNA—these are the kinds of evidence required by modern science. Photographic and video evidence has become too easy to fake nowadays, so we should be skeptical of it. But although almost everyone has a high-quality camera on their smartphones, we do not have any indisputable photographs.

Conclusion

One is 'innocent until proven guilty' in a court of law, but this is not true in science. Instead, we have developed a negative process where hypotheses are always challenged. Conclusions are not (supposed to be!) drawn until the alternatives have been shown to be untenable.⁹ While science cannot conclusively prove the non-existence of anything, it is not reasonable to infer that dinosaurs are still alive today. It is, therefore, reasonable to conclude that *dinosaurs are now extinct until proven otherwise*.

'Living dinosaurs' was a hypothesis that must be retired due to the extraordinary lack of evidence. There are so many strong arguments for dinosaurs that support both a 'young' earth and a global Flood,¹⁰ so why major on doubtful ones? After all, if they don't convince leading creationists, why would we expect them to convince evolutionists? It is time to move on. ■

References and notes

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