The One with the Errant Inerrancy (Pt. 2) Notes and Clarifications

In Episode 7, we covered a lot of scientific info and we wanted to provide some additional information that provides clarification and information that you might find interesting. We are not scientists, but we do strive to provide solid, factual information in the podcast and if we are unclear or confusing, we want to clarify where we can and correct where we need to. Thanks to our listeners who helped provide some amazing resources on these topics.

Phil & Susie

• 2:20: "Noah's Flood"

The way the account is worded in Hebrew, the "whole earth" ("kol eretz") should probably be translated "whole land." Likewise, the word use for "mountains" (when it says they were covered) is the same used of the "high places" of unsanctioned worship throughout the OT. Since the concept of a globe of the magnitude we now know the earth to be was foreign to the ancient near-east (ANE) culture, it doesn't make much sense to project our current understanding back on the ancient text. In other words, the entire basis for this major young-earth creationist (YEC) claim rests on poor translation and a lack of understanding hyperbole. This is why, when discussing it with creationists, I usually specify "global flood," as there really were some major floods that likely inspired the flood legends of that region.

• 3:20: "Every single fossil"

Technically, most YECs say that there was some fossilization before and after the global flood, but can never agree on which strata were and were not deposited by the global flood. Here's a great PDF entitled "The Defeat of Flood Geology by Flood Geology" that examines YEC "scientific literature" in which the various authors (correctly) point out why various parts of the geologic record could not be the result of a single global flood, collectively ruling out the entire thing.

• 4:00: "You would find a nice big megalodon fossil on top of Mt. Ararat."
In fact, marine organisms are frequently found in (not just on) mountains. This is because mountains are upthrust from land that may have once been underwater. YECs frequently cite this as evidence of a global flood, but miss the fact that such things could not possibly be formed in a global flood (more details here). The last Megalodons may indeed have lived at the same time as the earliest humans (though not Homo sapiens).
This is the biggest correction on this list.

• 5:10: "They look like they've been fleeing."

YECs are just extra wrong on these ones. Rarely do we find organisms buried while fleeing. Rather, they look at dinosaurs in a common death pose in which the neck arches back due to postmortem contraction and assert that this means they were gasping for air as they died. They also point out fossils of fish that choked on a too-large meal as "caught in the middle of eating" and a famous ichthyosaur fossil in the middle of live birth as if it were frozen that way. In reality, eating things large enough to choke you or giving live birth are likely to kill you while you're doing them.

• 7:08: "Chee-ops"

Correct pronunciation is "KEE-ops."

• 9:07: "8,000,000 species" (info)

This is a bit tricky. Estimates of species numbers vary widely, with around 1,300,000 animal species currently scientifically described, but estimates are all over the place. since we're trying to guess what we don't know, and genomics constantly shows how many more species there are than were previously thought. Relevant to this particular case, however, is the assertion that YECs make that only fully-terrestrial animals with lungs had to be on the ark (since the Bible specifies those with "the breath of life"). So insects, "fish," aquatic or semi-aquatic tetrapods (like pinnipeds, crocodilians, cetaceans, etc.) wouldn't have to be there either. Of course, this ignores the fact that most aquatic organisms live in a tightly-constrained environment, with temperature, salinity, turbidity, light levels, etc. being very important to their survival (as you mentioned), all of which would have been completely wrecked by a global flood. The Ark Encounter claims about 1400 "kinds" came on board the ark, with their descendants "diversifying" (can't use the "E-word," obviously) into today's species. This of course means asserting super-duper-mega-hyper-macroevolution on crack in order to get today's diversity from that few ancestors, but for some reason they don't care. You touched on this, but it bears repeating just how absurd it is.

• 9:50: "4,000,000,000 species" (info)

This estimate assumes evolution and deep time, estimating total species based on the relatively few we can identify in the fossil record. I don't actually know what YECs think the total number of species that have ever lived is.

• 10:00: "Plants" (info)

YECs just pretend plants are magic and would survive just fine. Their favored explanation for lots of conundrums is "floating vegetation mats" (which are a real thing that occurs from storms sometimes, and is likely how monkeys arrived in South America over 30 million years ago).

• 11:40: "Distribution of animals" (info)

Distribution of plants is an even bigger nightmare for YECs. At least animals can move.

• 12:45: "Longest wooden ships today"

"Today" being "early 20th century." The Wyoming was the longest mostly-wood ship for which we have reliable records, but it was built in 1909. Since that time, large boats have mostly been made of metal.

• 17:12: "These jets travel at the speed of light"

The speed of light cannot be exceeded, but more accurately, nothing with mass can go at c, which is the speed light travels in a vacuum. These jets travel at a significant fraction of c, hence the name "relativistic," since mass traveling at a significant fraction of c (usually more than about 10%) experiences notable relativistic effects, like time dilation, length contraction and mass increase.

• 20:55: "Carbon dating" (info)

Carbon dating *is* a type of radiometric dating, since it relies on the decay of radioisotopes. However, it applies only to organic remains of organisms that got most of their carbon from the atmosphere or from other organisms in close contact with it. It

works because the sun and cosmic rays regularly bombard the atmosphere, occasionally turning a stable ¹⁴N (Nitrogen 14) atom into an unstable ¹⁴C (Carbon 14) atom. ¹⁴C decays with a half-life of about 5,730 years, but since it's chemically identical to stable ¹²C and ¹³C, it gets incorporated into organisms. When the organism dies, it stops taking in new carbon, and the ¹⁴C decays without being replenished. Since there are tree rings, lake deposits, ice cores and other annual natural clocks, scientists can measure the concentration of ¹⁴C relative to stable carbon and calibrate ¹⁴C dating to each year for which they have data, yielding a highly-accurate dating method out to about 55,000 years. Beyond that, so little ¹⁴C remains that it's just about indistinguishable from background contamination.

Recommended reading:

- The Impossible Voyage of Noah's Ark
- Physical Constraints on the Noachian Deluge
- https://dinosaurpictures.org/ancient-earth#500
- https://dinosaurpictures.org/