Disclosure

of things evolutionists don't want you to know

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Missing Isotopes

Missing short-lived isotopes don't prove the Earth is old.

There is an Old Earth creationist site that claims missing radioactive isotopes are proof that the Earth is many millions of years old. Apparently it must have gotten some sort of attention lately because we've received several emails asking us about it.

The *Accuracy in Genesis* site presents "a table of all 29 known radioactive isotopes that have a half-life of one million years or more, and that are not being continually produced by natural nuclear reactions." [1] All the isotopes with half-lives of less than 80 million years are not found in nature. The isotopes with half-lives greater than 700 million years are. They conclude,

> The most obvious explanation for the above is that all these elements were present when the Earth was formed, but by now the short-lived ones have decayed away. This explanation is compatible with the age scientists accept for the Earth. [2]

Their explanation is based on faulty reasoning used by evolutionists that is hardly ever mentioned, even on creationist sites. But before we delve into that fallacy, and present a better explanation, let's explain the missing isotope argument more clearly than they do.

Isotopes 101

They assume you understand what isotopes are, and how they are formed. In many cases that may be true. If you don't know, their argument won't make any sense. So, here is a simplified explanation about how radioactive decay produces isotopes.

The nucleus of an atom is made up of protons (which have a positive charge), neutrons (which have no electrical charge), and a bunch of other lightweight subatomic particles irrelevant to our current discussion. An isotope is an atom with a specific number of protons and neutrons.

Protons and neutrons both weigh "one atomic mass unit." An isotope is defined by the combined number of protons and neutrons, which is its "atomic mass."

The number of protons in the nucleus is called the "atomic number." It determines what kind of atom it is. For example, any atom with 6 protons is a carbon atom.

The most common carbon isotope, Carbon 12, is made up of 6 protons and 6 neutrons. Therefore carbon's atomic number is 6, and its atomic mass is 12. Some carbon atoms have 6 protons and 7 neutrons. This isotope is called Carbon 13. Some carbon atoms have 6 protons and 8 neutrons. That isotope is called Carbon 14.

Some isotopes are stable. That is, they last forever. Other isotopes are radioactive. They decay spontaneously. In the case of Carbon 14, occasionally one of the neutrons will eject a negatively charged Beta particle (which has negligible weight), causing that neutron to turn into a proton. The nucleus now contains 7 protons and 7 neutrons. It still has an atomic mass of 14, but since it contains 7 protons it is no longer carbon. It has become Nitrogen 14.

We can't predict which Carbon 14 atom will decay any more than we can predict which particular crystal in an ice cube will melt first. But, knowing the temperature (and the size of the ice cube) we can predict how long it will take for half of the crystals in an ice cube to melt. In the same way, we can't predict which Carbon 14 atom will decay into Nitrogen 14; but we do know how long

[1] http://www.accuracyingenesis.com/missing.html
[2] *ibid.*

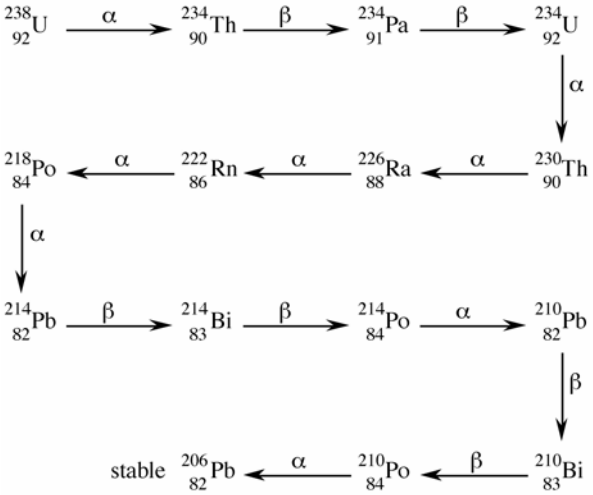
it will take for half of the atoms to decay. That time is called the "half-life."

The more atoms there are, the better the chances are that one will decay. When there are only a few atoms, the odds are poorer that an atom will decay. That's why, if you draw a graph of the number of atoms left, it will not be a straight line. In the beginning, when there are lots of atoms to decay, the graph will drop rapidly. Later, when there are few atoms to decay, the graph flattens out. The graph looks like the left side of a skate-board half-pipe.

We've used carbon in our example because the small numbers make it easier to do the math (6+8 = 14 = 7+7). Furthermore, carbon decays using a process called Beta decay, in which an electron is ejected from a neutron, which changes the neutron into a proton.

The heavier elements decay two ways. In addition to Beta decay, they also experience Alpha decay. In Alpha decay, two protons and two neutrons break off from the nucleus. The result is a lighter element (whose atomic number is 2 less than the original atom, and whose mass is 4 atomic mass units lighter than the original atom) and an Alpha particle (which has an atomic number of 2 and an atomic mass of 4).

Uranium is a typical heavy radioactive atom. It decays to lead in a series of steps shown in the diagram below. [3]



The diagram shows that uranium (with an atomic number of 92 and a mass of 238) decays to thorium (with an atomic number of 90 and a mass of 234) by alpha decay. But thorium is also radioactive, so it decays, too. After a bunch of other radioactive decay steps, the process eventually ends with a stable isotope of lead (whose symbol is Pb because of its Latin name), with an atomic number of 82, and an atomic mass of 206.

The only thing you really need to know about this diagram is that as uranium decays to lead, it produces several intermediate isotopes. Some of these isotopes last for very many years before decaying. Some last for a few years. Some only last for seconds.

Missing Isotopes

This whole explanation was necessary to get back to the notion of naturally-produced short-lived radioactive elements. There are some radioactive elements with short half-lives that are found in nature. The reason we can find these elements is because they are continually being produced by the decay of larger radioactive elements, such as uranium. If they weren't being continually produced, we would not be able to find them after some period of time because they all would have decayed.

The modern periodic table also contains man-made elements that don't occur in nature. These elements are made using machines to smash lighter atoms together hard enough to make them stick together. They generally decay rather quickly—sometimes too quickly to verify that they really existed.

Because we can produce these radioactive isotopes in the laboratory, we know what their properties are. That is, we know how much they weigh and how long it takes them to decay. But we can't find them in nature. They only exist in the laboratory.

Why Missing?

Now that you have patiently endured this long background explanation, here's the payoff! The *Accuracy in Genesis* website claims that the fact we can't find any of these artificially produced isotopes in nature is because the Earth is so old that they have all decayed. This assumes that these artificial, short-lived isotopes once existed in nature. But since they don't occur naturally now, there isn't any reason to believe that they ever occurred naturally. The reason we can't find any of these short-lived artificial isotopes in nature now isn't because they all decayed—it's because they never existed in the first place. They can only be produced in a laboratory.

A Related Fallacy

Here's an important point that is almost always missed: The processes we observe that destroy

[3] This diagram can be found many places. We happened to get it from the Connections website, http://cnx.org/content/m31328/latest/. We recommend you visit the Connections website for an excellent, much more detailed explanation of radioactive decay.

things today are never the processes that created them originally. The forces that cause a wall to crumble are not the same forces that built the wall in the first place. The process that is causing me to go bald is not the process that caused me to grow hair on my head to begin with.

Mutation and natural selection can cause exiting species to change to some extent, or go extinct; but that doesn't mean that mutation and natural selection created those species.

This is such a simple point that it should not be worth mentioning; but it is such an important point it must be mentioned. We challenge you to think of any process that changes anything and also created that thing. Yet it is asserted (without proof) that evolution (which certainly does cause existing creatures to change to some limited extent) is the process that created all existing creatures. "Survival of the fittest" (more accurately described as "death of the less fit") does not create any thing new.

Back to Isotopes

We began this article talking about the "missing" isotopes. These are isotopes that are not produced by the decay of other radioactive elements and cannot be found in nature today. The unstated assumption is that the missing isotopes must have been created by some other, unknown process when the Earth formed. That's not a reasonable assumption.

Some people would argue that just because we don't know what the unknown process was, that doesn't prove it didn't happen. Maybe a star exploded and created all those isotopes that can only be created today by atom smashers. Students are being taught in American public schools that a "maybe" explanation is better than no explanation at all. Since nobody can come up with a better explanation, it must be true that an exploding star created all the isotopes that have never been found in nature.

Students aren't supposed to question the teacher when it is asserted that things that have never been found in nature must have once existed, but are now gone, because the theory says they must have existed at one time.

In that respect, missing isotopes are no different from missing links. Missing links have never been found (that's why they are called "missing" links), but they must have existed because the theory says they must have existed.

When it is impossible to find things that a theory says must have existed, one must question the validity of the theory.

Evolution in the News

Chaotic Evolution

Evolution is in chaos, so evolutionists are trying to put chaos in evolution.

Darwin's great contribution to science was that he proposed a simple, straightforward explanation for how living things evolve. Now scientists have discovered his simple explanation isn't correct; so they are trying to replace it with a complex, chaotic explanation. In particular, Keith Bennett (a Royal Society Wolfson Research Merit Award winning professor of late-Quaternary environmental change at Queen's University Belfast and author of Evolution and Ecology: The Pace of Life, published by Cambridge University Press) is trying to explain why evolution could still be true, despite the problems the fossil record poses for the theory.

> IN 1856, geologist Charles Lyell wrote to Charles Darwin with a question about fossils. Puzzled by types of mollusc that abruptly disappeared from the British fossil record, apparently in response to a glaciation, only to reappear 2 million years later completely unchanged, he asked of Darwin: "Be so good as to explain all this in your next letter." Darwin never did.
>
> To this day Lyell's question has never received an adequate answer. I believe that is because there isn't one. Because of the way evolution works, it is impossible to predict how a given species will respond to environmental change. [4]

The other obvious explanation, of course, is that the interpretation of the ages of the fossil record is completely wrong. Rock layers don't actually represent long ages of time, so there really wasn't a two-million year gap. Despite the fact that this apparent gap is evidence that their interpretation of geologic time is wrong, evolutionists never question it. This forces Bennett, and other evolutionists, to come up with a fantastic explanation to make the evidence fit their theory.

> However, there is still huge debate about the role of natural selection and adaptation in "macroevolution" - big evolutionary events such as changes in biodiversity over time, evolutionary radiations and, of course, the origin of species. Are these the cumulative outcome of the same processes that drive microevolution, or does macroevolution have its

[4] Bennett, *New Scientist*, 16 October 2010, pages 29-31

own distinct processes and patterns?

…

Palaeoecologists like me are now bringing a new perspective to the problem. If macroevolution really is an extrapolation of natural selection and adaptation, we would expect to see environmental change driving evolutionary change. Major climatic events such as ice ages ought to leave their imprint on life as species adapt to the new conditions. Is that what actually happens? [5]

It should come as no surprise to you, the answer is, "No." The pull-quote printed in huge letters on the top of page 30 is,

"The link between environmental change and evolutionary change is weak - not what Darwinists might have predicted" [6]

Bennett's argument centers around fossilized tree pollen, and the supposed environmental oscillations that have taken place in the past 2 million years, with particular emphasis on the last 20,000. Then he tries to reconcile DNA analysis (the "molecular clock") with the fossil record, and he runs into more problems.

That is not to say that major evolutionary change such as speciation doesn't happen. But recent "molecular clock" research suggests the link between speciation and environmental change is weak at best. [7]

He is up to his eyeballs in evidence against evolution but he just can't see it. Maybe he does see it, but can't admit it because his job depends on it. Anyway, here's how he tries to rationalize away the contradictions between the theory of evolution and the facts of science.

I suggest that the true source of macroevolutionary change lies in the non-linear, or chaotic, dynamics of the relationship between genotype and phenotype - the actual organism and all its traits. The relationship is non-linear because phenotype, or set of observable characteristics, is determined by a complex interplay between an organism's genes - tens of thousands of them, all influencing one another's behaviour - and its environment.

Not only is the relationship non-linear, it also changes all the time. Mutations occur continually, without external influence, and can be passed on to the next generation. A change of a single base of an organism's DNA might have no consequence, because that section of DNA still codes for the same amino acid. Alternatively, it might cause a significant change in the offspring's physiology or morphology, or it might even be fatal. In other words, a single small change can have far-reaching and unpredictable effects - the hallmark of a non-linear system. [8]

Non-linear systems aren't as daunting as Bennett would have you believe. We can't predict which particular crystal in an ice cube will melt first, but we can predict how long it will take an ice cube in a warm place will melt. One can't predict which particular individual will mutate in any particular way; but given the tremendous number of individual living things, some trends should be predictable. Bennett's problem is that the trends aren't consistent with Darwin's explanation.

Here is Bennett's conclusion:

This view of life leads to certain consequences. Macroevolution is not the simple accumulation of microevolutionary changes but has its own processes and patterns. There can be no "laws" of evolution. We may be able to reconstruct the sequence of events leading to the evolution of any given species or group after the fact, but we will not be able to generalise from these to other sequences of events. From a practical point of view, this means we will be unable to predict how species will respond to projected climate changes over next century.

The question Lyell put to Darwin over 150 years ago is unanswerable because Lyell put it in terms of a particular group of organisms. Not even Darwin would be able to explain why that specific group behaved as it did.

In the last analysis, evolution can be likened to the description of human history as "just one damn thing after another", exactly as Fodor and Piattelli-Palmarini [9] have argued.

We still have much to learn about how life evolved but we will not develop a full appreciation until we accept the complexity of the system. [10]

We could not agree more with the subtitle *New Scientist* chose for Bennett's article,

Forget finding the laws of evolution. The history of life is just one damn thing after another [11]

[5] *ibid.*
[6] *ibid.*
[7] *ibid.*
[8] *ibid.*
[9] *Disclosure*, March 2010, "Natural Selection Shocker", http://www.scienceagainstevolution.org/v14i6n2.htm, *Disclosure*, April 2010, "What Darwin Got Wrong", http://www.scienceagainstevolution.org/v14i7b.htm
[10] Bennett, *New Scientist*, 16 October 2010, pages 29-31
[11] *ibid.*

Email

THANKS FOR THANKING

Not all of our email is hate mail.

We don't very often print fan mail because printing fan mail can be self-indulgent and the hate mail is usually more interesting. But since the United States celebrates Thanksgiving in November, it is an appropriate time to thank the people who thank us for this newsletter. We really do appreciate your letters of support. Here are two typical fan letters.

Hi,
I just wanted to thank you. I have been in a debate (my first) for about three weeks on facebook about Creation vs. Evolution. Lately, I have been becoming very frustrated and angry. About a week into it while researching human tails I did start to get silly, but any humor quickly evaporated when I realized their sense of humor was less highly evolved than mine. So when I was about ready to hunt one of them down and hurt him, I came across your website and first read, "Let's talk about Lucy". I was so delighted to find myself chuckling at the way you put things into perspective! I feel like God has been guiding me all along, and he knew just what I needed when I needed it. I watched "Evolution for Intellectuals" last night with my 17 year old son, and we had a great laugh. So thank you!!
In Christ,
April

Our humor is admittedly controversial. Evolutionists often get angry when we bring Frosty the Snowman into discussions of the origin of life. Perhaps that is because evolutionists don't have a highly evolved sense of humor, as April suggests; but we think it is because the truth is often revealed in humor. If it is silly to believe that snow can come to life, why is it not silly to think that pond water can come to life? Evolutionists don't like to think about that.

Our newsletters aren't all fun and games. We can be serious, too, as this next email points out.

Dear Mr. Do-While Jones, :)
I just wanted to say thank you very much for the article you wrote about thermodynamics on the Science Against Evolution website.
I couldn't understand what in the world either my text book or my teacher was saying. I thought I would never understand physics or thermodynamics in my life. And then...
And then.
I came across your article. "Thermodynamics for dummies". Sounded like the right thing for me. And it was!! I understood thermodynamics, physics and life! I felt illuminated, enlightened, like the world made sense!!
Thank you! Thank you! Thank you! Thank you! Thank you!
It really means a great deal to me. :) I hope you would write in the same way about everything I need to know for the finals, or even just everything!
I probably sound very unnecessarily, irritatingly excited, but its [*sic*] the only way I can tell you how much I've been helped by you :)
Thank you again!
Your fan,
Sumedha

Despite what our critics say, I love science; and I love to write about science. That's why this month's feature article contains a lot of background information about radioactive isotopes. We could have reduced that article down to, "The isotopes aren't missing because the Earth is so old they have all decayed. The isotopes are missing because they were never there in the beginning." We didn't do that because the purpose of this corporation is to teach you as much science as possible as entertainingly as possible.

In my life I have taught electrical engineering at a Big Eight university and a little community college you've never heard of. I've taught software development for the U.S. government in the Mojave Desert in the scorching summer heat and the Canadian government during an ice storm in the middle of winter. I've given lectures about the Ada programming language at computer conferences from San Francisco to Nice, France. I've published more than 50 articles in professional journals on circuit design, computer programming, and software development.

There are two reasons why I've done all this. One is because they paid me. ☺ The second reason is satisfaction. It is very satisfying to know that what you do is appreciated by other people. Teachers, musicians, and artists continue to do what they do even if they don't make a lot of money doing it because they enjoy making life better for other people. That's true to a greater or lesser extent for every other occupation. You would not be paid for what you do if it wasn't important to the person paying you. You can take satisfaction in your job, whatever it is.

We are telling you this because we often get emails questioning our motives. I love teaching, and answering questions. It is as simple as that. American public school students are being taught a distorted, one-sided perversion of science. I personally find it satisfying to teach what public schools neglect (or refuse) to teach. The more you know, the better off you will be.

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

You are also permitted (even encouraged) to send a donation of $15/year to Science Against Evolution, P.O. Box 923, Ridgecrest, CA 93556-0923, to help us in our work. ☺

by Lothar Janetzko

The American Scientific Affiliation

Creation and Evolution

http://www.asa3.org/ASA/topics/Evolution/index.html

"The ASA has no official position on evolution"

This month's web site review looks at the Creation and Evolution page of the American Scientific Affiliation (ASA). ASA "is a fellowship of men and women of science and disciplines that can relate to science who share a common fidelity to the Word of God and a commitment to integrity in the practice of science. ASA was founded in 1941 and has grown significantly since that time."

The Creation and Evolution home page of ASA points out that "No topic in the world of science and Christianity has fostered the intensity of discussion and disharmony with evangelicals as the source of biological diversity." On the home page, which is organized into two sections, you will find links to many different topics. The left section, which is the smaller one, has links that are provided under the category of Topics such as 1) About Science & Faith, 2) Apologetics, 3) Archaeology and Anthropology, 4) Astronomy & Cosmology, 5) Bible and Science and many more. Below these links you will find a number of quotes provided by different authors. The right section, which is the larger one, provides access to more current information about the creation/evolution debate. Here you will learn why the ASA has no official position on evolution, recent Gallup Poll results and the spectrum of creation views held by evangelicals. Also you will find links that are related to recent news concerning creation/evolution.

The site "currently contains more than 50,000 searchable text pages and 40,000 images of both publications and handwritten manuscripts. There is also the most comprehensive Darwin bibliography ever published and the largest manuscript ever assembled".

There is much to explore on this web site so just follow links that you find interesting.

Disclosure

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