



*"The heavens declare the glory of God" (Psalm 19:1)*

# REASONS TO BELIEVE - SEATTLE AREA CHAPTER

NEWS AND VIEWS

AUGUST 2007

## What's Happening?

### Samples in Seattle

Ken Samples, RTB's VP for worldview apologetics, will be visiting the Seattle area Sept. 13-15. Friday, Sept. 14, at 7:00 PM, he will address "Do All Religions Lead to God?" at Northshore Christian Church in Everett. For directions go to [www.northshorechristian.org](http://www.northshorechristian.org) and click on FAQs. Saturday, Sept. 15, at 9:00 A.M., he speak about his new book, *A World of Difference*, at our chapter meeting at Calvin Presbyterian Church in Shoreline. For directions go to: [www.calvinpc.org](http://www.calvinpc.org). Both events are free. We are still looking for a venue for Sept. 13. If your church would like to host him, please contact the chapter at [seattle@reasons.org](mailto:seattle@reasons.org). There is no charge, although an offering would be appreciated.

### We Do Presentations

The Seattle chapter does presentations on wide range of topics ranging from the scientific evidences for God, to the age of the earth debate. If your church or group is looking for speakers, contact us at [seattle@reasons.org](mailto:seattle@reasons.org).

## Inside This Issue

- In The News. . . . . page 2
- Book Reviews. . . . . page 3
- Who We Are . . . . . page 8

## Do the RATE Findings Negate Mainstream Science?

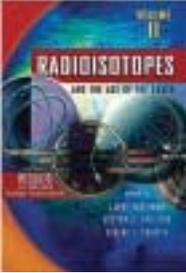
GREG MOORE

[This is part 2 of this article. Part 1 appeared in the July Chapter newsletter.]

### IV. Fission Tracks

#### Background

Fission tracks are caused by radiation damage to the crystal structure of certain minerals. They form when an unstable atom, usually uranium-238, undergoes fission. The fragments emitted by this process fly apart through the mineral and leave trails of damage. These fission tracks have a tubular shape and can be observed through a microscope.<sup>71</sup> Like radiohalos, fission tracks disappear when rock is heated to the annealing temperature (around 200° C for zircon).<sup>72</sup> Thus, fission track dating reveals the time since the rock last cooled below the annealing temperature which may, or may not, coincide the formation age of the rock. This is useful for investigating the thermal history of rock.<sup>73</sup>



To use fission tracks to date a rock, an interior surface of a sample is polished and etched with an acid solution so the tracks are visible through a microscope. Researchers then count the number of fission tracks within a certain area of the sample. Next, the sample is heated and irradiated (bombarded with neutrons) to induce uranium fission which produces new fission tracks. Researchers then count the number of new tracks (within the same area) to determine the uranium content of the sample. The ratio of original tracks to new tracks is similar to knowing the daughter and parent atoms and is used to calculate the age.

The goal of this RATE study was to conduct fission track analyses on samples of Flood rock. The RATE team planned to use this data to estimate nuclear decay rates during the Flood to support the accelerated decay hypothesis.<sup>74</sup>

## Approach

The RATE team obtained samples of tuff from the Grand Canyon Colorado Plateau region. (Tuff is volcanic ash that has been cemented to solid rock.) Three samples consisted of Paleozoic rock which they classify as early Flood deposits, six samples consisted of Mesozoic rock which they classify as mid to late Flood deposits, and three samples consisted of Cenozoic rock which they classify as late to post Flood deposits. A commercial laboratory extracted zircon crystals from the samples and conducted fission track analyses on them.<sup>75</sup>

The RATE team found the fission track results for the Mesozoic and Cenozoic samples were in close agreement with published ages of the rock.<sup>76</sup> However, the fission track ages for the Paleozoic samples varied significantly from the published age of the formation. Fission track dating produced a likely age of 60 to 75 million years, while the published age of the rock is 540 to 560 million years.<sup>77</sup>

The RATE team claims this supports the accelerated decay hypothesis because the published age of the Paleozoic samples indicates over 500 million years of accelerated uranium-238 decay occurred during the early stages of the Flood. They also contend fission tracks are evidence for a recent creation because just hundreds of degrees are sufficient to erase the tracks and it is unlikely the rock could have remained cool for vast ages of time.<sup>78</sup>

## Discussion

The fission track ages for the Paleozoic rock agree with the geologic history of the Grand Canyon Colorado Plateau region. The RATE samples consisted of Mauv Limestone and Tapeats Sandstone.<sup>79</sup> These were deposited by an inland sea around 530 million years ago.<sup>80</sup> This is the time period the published age corresponds to. About 75 million years ago, major uplift of the region began as part an event that created the Rocky Mountains (known as the Laramide orogeny). The heat from this event would have erased any previous fission tracks and reset the zircons to a zero fission track age. This is the time period the fission track ages correspond to.<sup>81</sup>

While the RATE team implies that the discordance between the fission track age and published age of the Paleozoic rock is problematic, they acknowledge that fission track dating does not give the full age of a sample. They also admit that the fission track ages for the Paleozoic rock may be correlated with the uplift of the Colorado Plateau region.<sup>82</sup> In fact, the RATE conclusions really have nothing do with the dating results. Instead, they are based on two suppositions. First, that Paleozoic rock formed early in the Flood, approximately 4,500 years ago.<sup>83</sup> Second, that the Paleozoic rock could not have remained cool for millions of years.<sup>84</sup> However, neither claim is supported by the study data.

The RATE team does not dispute the efficacy of fission track dating. Therefore, if the RATE suppositions are valid, fission track dating of the Paleozoic rock should have yielded ages of around 4,500 years. The fact it didn't demonstrates the rock is much older than they contend. The dating results also establish that tectonic events following the Laramide uplift did not produce temperatures sufficient to erase the fission tracks; otherwise, the tracks would have reset to a younger age. Thus, the RATE findings contradict the claim that the rock could not have remained cool for

*Continued on page 4*

## *In the* **NEWS...**

### [Antony Flew Book](#)

Antony Flew, one of the most famous atheists of the 20th century, has written a new book which will be available in November: *There is a God: How the World's Most Notorious Atheist Changed His Mind*. To preorder a copy go to: <http://www.amazon.com/exec/obidos/ASIN/0061335290/savedbygracemini/>.

### [Academic Freedom](#)

A new documentary, *Expelled: No Intelligence Allowed*, exposes the Darwinist assaults on academic freedom of those who dissent from evolutionary theory. For a review of the movie by Bruce Chapman of the Discovery Institute, go to [http://www.evolutionnews.org/2007/08/hollywood\\_gets\\_the\\_message\\_abo.html#more](http://www.evolutionnews.org/2007/08/hollywood_gets_the_message_abo.html#more).

### [Moral Darwinism](#)

Most debates focus on the theoretical status of evolution. But, what about the moral implications of the theory. According to Dr. Benjamin Wiker of tothesource, "it ain't pretty." For example if races are the result of evolution, then some are inferior to others. Go to: [http://www.tothesource.org/8\\_14\\_2007/8\\_14\\_2007.htm](http://www.tothesource.org/8_14_2007/8_14_2007.htm).

### [Fact, Fable, and Darwin](#)

This article by sociologist Rodney Stark the claim that evolution is an established truth. According to Stark, while the theory of evolution is regarded as an invincible challenge to all religious claims, the truth is the theory has yet to be proven or explained. Go to: <http://www.meridianmagazine.com/ideas/050210darwin.html>.

### [Being Gay and Christian](#)

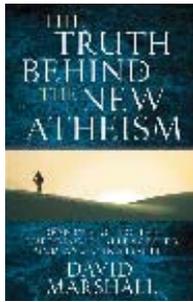
This Breakpoint article by Regis Nicoll examines the claim some Christians make that homosexuality is a gift from God and gay people can live deeply spiritual lives. The question he asks is whether homosexuality is a gift to embrace or a temptation to overcome? Go to: <http://www.breakpoint.org/listingarticle.asp?ID=6846.citizenlink.org/FOSI/education/A000004291.cfm>.

## Book Reviews

### Truth Behind the New Atheism

David Marshall  
Harvest House Publishers, 2007

Reviewer: David Marshall



A Presbyterian pastor wrote me, “I worked part-time last year at Borders while I was looking for this new pastorate, and I kept wondering, “When will someone write something GOOD about this little brushfire of village atheists with little new to say?” That’s the goal of this book.

*The Truth About the New Atheism* is a response to the “brushfire” of anti-Christian, anti-God best-sellers that have burned through secular shelves for the past year—Richard Dawkins, Sam Harris, Daniel Dennett, Christopher Hitchens. I argue that the critics are wrong about science, wrong about faith, and wrong about what the Gospel has done for the world. But my goal is not just to destroy bad arguments—though heavens knows, these gentlemen offer a “target rich environment” for the Christian apologist. I also try to show how the Gospel allows what E. O. Wilson called “consilience” between different fields of knowledge. I try to do so by “speaking the truth in love,” as St. Paul put it, or at least with courtesy.

Reviewers so far agree that *The Truth About the New Atheism* succeeds in these goals. Dr. Paul Griffiths of the Duke Divinity School writes, “Dennett’s and Dawkins’ arguments are given a full and fair showing, and their strengths acknowledged, which makes all the more impressive the fact that only tumbled fragments of their atheistic edifice remain by the time Marshall is done.” Eminent sociologist of religion Dr. Rodney Stark calls the book, “A wonderful revelation that unreflective, blind faith is most prominently displayed these days by the “new atheists.” And, Dr. Ralph Winter, founder of the US Center for World Missions, suggests the book “could rescue the faith of thousands of evangelical high school and college students.”

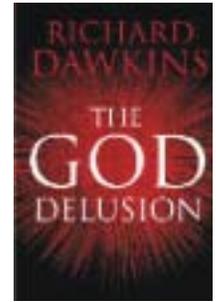
I pray that it will be a useful evangelistic tool for those who want to offer “reasons to believe” to a world that does not yet have faith, as well.

[Note: David Marshall heads the Kuai Mu Institute. For information about his ministry go to: [www.homestead.com/christthetao](http://www.homestead.com/christthetao). The book is available at [amazon.com](http://amazon.com).]

### The God Delusion

Richard Dawkins  
Houghton Mifflin, 2006

Reviewer: Jon Greene



Richard Dawkins, Oxford professor and evolutionary biologist, sets a clear goal in *The God Delusion*: “If this book works as I intend, religious readers who open it will be atheists when they put it down.”

To the average reader, Dawkins’ arguments against God may seem convincing, but actually they are just a rehash of old ideas. For instance, he fallaciously argues against the Cosmological Argument, based on the idea of infinite regress (if God created the world, who created God?). To avoid the Big Bang beginning of the universe, Dawkins predictably references the multiverse theory (scientifically unproved) and even resorts to the bouncing universe model (discredited decades ago).

Dawkins also attacks the reliability of Scripture, mentioning the gnostic gospels and presenting arguments that have been refuted by more recent scholarship. His arguments make it abundantly clear that Scripture is not his forte. He rails against creation, intelligent design, and even chance, suggesting that Darwinian natural selection accounts for all life—claiming that natural selection is a cumulative process than makes highly improbable events possible when broken down into smaller, less probable events. However, he provides no explanation for the origin of life, nor does he attempt to explain how natural selection can produce the information content within the “genetic molecule.”

Dawkins uses the precepts of young-earth-creationism (YEC) as a battering ram against Christianity. He mentions “discredited creationist [YEC] legends of human skulls in coal and human footprints interspersed with dinosaurs” and devotes several pages to YEC geologist Kurt Wise, who teaches a 10,000 year old earth. He also ridicules Whitcomb and Morris’ theory of flood geology.

In summation, Dawkins philosophical and scientific arguments in favor of atheism are lacking. The book is worth reading to understand the naturalistic view, although it is clearly a creed against creation, intelligent design, and anything supernatural.

millions of years.

Some might contend that the fission track ages for the Paleozoic rock are the result of accelerated decay. However, such an event would have heated the rock far above the annealing temperature. Therefore, the fission tracks could only have formed after that event, when decay rates had returned to normal. As a result, the fission track results the RATE team obtained for the Paleozoic rock cannot be attributed to a burst of nuclear decay, leaving little grounds to dispute those ages. This indicates that, if decay was accelerated as the RATE team claims, the event must have occurred over 60 to 75 million years ago based on their findings.

It should also be noted that the RATE team only examined Flood rock (based on their classification of the geologic column). Fission tracks are also found in Precambrian rock in the Grand Canyon (pre-Flood rock based their classification) and yield ages of over a billion years.<sup>85</sup> According to RATE model, this rock would have been located at, or near, the surface at the time of the Flood. Therefore, if nuclear decay was accelerated early in the Flood, it would have been heated above the annealing temperature, erasing any previous fission tracks. As a result, the fission tracks in the Precambrian rock should yield ages comparable to the Paleozoic rock. The fact it yields much older ages would seem to contradict the accelerated decay hypothesis.

It is common for fission track ages to disagree with the absolute ages of rock. Such discordance merely indicates the rock has experienced heating events following its formation. This is precisely what the RATE data reveals. Rather than supporting a recent creation and the accelerated decay hypothesis, the study findings agree perfectly with the mainstream view of the geologic history of the Grand Canyon Colorado Plateau region.

## V. Nuclear Decay Theory

### Background

The accelerated decay hypothesis represents an entirely new paradigm that challenges the mainstream view of nature. If it is correct, nuclear decay rates must have been increased by as much as a billion-fold in some cases. Therefore, in order for the hypothesis to be taken seriously, it must be demonstrated that nuclear decay on such a massive scale is feasible.

One problem is there is no known mechanism that can account for such an enormous change in nuclear half-lives. Radioactive atoms have been subjected to extremes of pressure, temperature, chemical alteration, magnetism and electric fields in an attempt to modify nuclear half-lives. Those results indicate half-lives are very stable and those that do change usually change by only a few percent or less.<sup>86</sup> This is not nearly the magnitude required by the RATE model.

A second problem is the impact of such an event on the Earth. Calculations indicate the heat generated by a burst of accelerated nuclear decay would be many tens of thousands of degrees—hotter than the surface of the sun and sufficient to vaporize entire rock masses.<sup>87</sup> The radiation would also be lethal to creatures on the Earth. Thus, the RATE team must explain how Noah's family and the animals aboard the ark were able to survive such an event (and other creatures according to the local Flood view).

The goal of this RATE project was to conduct a search of scientific literature to develop plausible models for accelerated nuclear decay and offer possible solutions to the heat and radiation problem.

### Approach

The RATE team proposes two mechanisms for accelerated decay. The first focuses on the alpha decay process where an alpha particle is emitted. The second focuses on the beta decay process where a beta particle is emitted.

The alpha decay proposal involves what is known as the nuclear potential well. This "well" represents the forces that bind an atom together and the energy an alpha particle must achieve to escape the atom. Based on theoretical calculations of changes to the well, the RATE team found a ten percent decrease in well depth (the radius of the atom) could decrease half-lives by as much as 100 million, while a ten percent increase in alpha particle energy could decrease half-lives by 100,000 times. Therefore, the RATE team hypothesizes that rapid nuclear decay could have been caused by temporary changes to the well depth and alpha particle energy for the various radioactive isotopes.<sup>88</sup>

The beta decay proposal involves what is known as "string theory." This theory postulates that all matter consists of tiny vibrating loops of energy, trillions of times smaller than atoms. These "strings" are in the fabric of space-time and may involve as many ten extra hidden dimensions. According to string theory, there is a direct relationship between the size of these hidden dimensions and the Fermi constant that governs the interaction of the elementary particles in an atom. Because the rate of beta decay is very sensitive to the Fermi constant, the RATE team hypothesizes that beta decay could have been accelerated by small, temporary adjustments to the size of the hidden dimensions.<sup>89</sup>

To deal with the enormous heat that would be generated by a tremendous burst of accelerated decay, the RATE team proposes a concept called "cosmological cooling." This is highly theoretical and involves general relativity, higher dimensions and a rapid expansion of space. Simply put, the RATE team hypothesizes that a temporary universal stretching of space occurred during the Flood—an expansion 20-fold times or greater—and the heat generated by accelerated nuclear decay was drawn into the fabric of space.<sup>90</sup>

Finally, regarding the radiation issue, the RATE team claims the Flood waters would have provided some protection from accelerated underground radiation. However, they admit this would not be sufficient to limit the level of two radioactive elements in the environment which living creatures are very sensitive to: potassium-40 and carbon-14. Therefore, they hypothesize that creatures living at the time of the Flood did not incorporate significant amounts of potassium-40 into their bodies and the level of carbon-14 decay was much lower than the other radioactive isotopes.<sup>91</sup>

### Discussion

The RATE claim that nuclear decay rates were millions or billions of times greater in the past is not a minor issue. Such a change in decay rates would require a variation in the fundamental forces of nature and the relationship of matter and energy itself. In fact, if nuclear decay rates were accelerated, the RATE findings are meaningless. Under such a condition, we really cannot know with certainty the past decay rate of any isotope or isotope series and it becomes impossible to assign any significance to any radiometric data or phenomena.<sup>92</sup>

Both mechanisms the RATE team has proposed for accelerated decay are extremely speculative. For the alpha decay hypothesis to be valid, the well depth and alpha particle energy for each radioactive isotope would have to be individually adjusted. The same issue applies to the beta decay hypothesis. Temporary adjustments to the size of the hidden dimensions would have to be individually adjusted for each isotope to produce the required changes in the Fermi constant.<sup>93</sup> There is no known means for how such individualized adjustments could have occurred naturally, nor has the RATE team proposed any.<sup>94</sup> As a result, until the RATE team addresses this issue, these cannot be considered credible models.

The cosmological cooling hypothesis is equally speculative. While a stretching of the space around the Earth sounds impressive, it creates more problems than it solves. Such an enormous, universal expansion of space would alter the fine-tuned parameters that make life possible on the Earth. For example, the fine-tuning of the Sun-Moon-Earth system would be disrupted, the interior of the sun would dramatically cool and nuclear burning would be shut off for a period of time, and other things. Even the RATE team admits such an extreme alteration of the physical universe might drop the temperature too far resulting in a frozen Earth.<sup>95</sup> Thus, not only is there is no evidence of such a stretching of space in the past 6,000 years, but it is unlikely anything on Earth would have survived such an event.

Finally, the RATE hypothesis that radiation poisoning was not a problem because creatures living at the time of the Flood did not

incorporate significant levels of potassium-40 into their bodies is pure conjecture. If today's creatures are extremely sensitive to current level of potassium-40 in the environment, it is difficult to imagine that creatures living a few thousand years ago (based on their model) would have been able to survive a 500-million-year burst of potassium decay.<sup>96</sup> Before this proposal can be taken seriously, the RATE team must identify the biological mechanism(s) that would have allowed creatures to survive such levels of potassium-40 and explain why subsequent generations of creatures lost this special ability.

[The RATE proposal that carbon-14 poisoning was not a problem because carbon-14 decay was relatively modest is based on a study conducted by one of the RATE team members. Basically, they claim the carbon-14 found fossil fuels demonstrates carbon-14 decay was minimal. They also claim the carbon-14 in the pre-Flood world was greatly diluted because there was much more carbon-12 than today. Those issues will be discussed in the next section.]

The problems facing the RATE accelerated decay hypothesis are mind-boggling. While the RATE team contends these problems are not insurmountable, they also admit they are nowhere close to solving them.<sup>97</sup> This is a striking admission after five years of research. Until the RATE team puts forth a workable model that offers tangible solutions to these things, accelerated decay remains an interesting, but dubious, concept.

### OTHER ISSUES

The RATE team also examined carbon-14 dating. Although this was not one of the five original RATE projects, their findings were included in the RATE book.<sup>98</sup> For this reason, a brief discussion of this issue is warranted.

#### Background

There are two stable carbon isotopes on Earth: carbon-12 and carbon-13. There are also tiny amounts of the unstable (radioactive) isotope carbon-14. Most carbon-14 is produced in the atmosphere as cosmic rays hit nitrogen atoms.<sup>99</sup> Carbon-12 and carbon-14 are continually taken into living organisms. Because the carbon-14/carbon-12 ratio in the environment is fairly constant, the carbon-14/carbon-12 ratio in living things is also relatively constant.

However, when an organism dies, it stops incorporating carbon into its tissues and the carbon-14/carbon-12 ratio changes as the carbon-14 decays away. Thus, scientists can date material from formerly living things by determining the carbon-14/carbon-12 ratio of the material. This is the process known as carbon-14 dating.<sup>100</sup> Because the half-life of carbon-14 is only 5,730 years, the current maximum radiocarbon dating limit lies between 58,000 and 62,000 years (approximately ten half-lives). This limit is encountered

when the radioactivity of the residual carbon-14 is too low to be distinguished from background radiation.<sup>101</sup>

### Approach

The RATE team examined ten samples of coal dated to the Paleozoic, Mesozoic and Cenozoic eras (which they classify as Flood deposits) and 12 diamonds. Both contained detectable levels of carbon-14. The RATE team contends this is strong evidence for a young earth because all of the carbon-14 should have decayed away if coal and diamonds are hundreds of millions of years old as mainstream scientists claim. They maintain the carbon-14 is from biomass (plants and animals) that was buried during the Flood (approximately 4,500 years ago based on their chronology).<sup>102</sup>

The RATE team claims the reason carbon-14 dating of coal and diamonds yields ages of hundreds of millions of years is carbon-14/carbon-12 ratio scientists use in the dating calculations is incorrect. They maintain that the ratio of carbon-14 to carbon-12 was less during pre-Flood times because the biomass was much greater than today (i.e., there were many more plants and animals prior to the Flood)—as a result, there was more carbon-12 in the biosphere and the carbon-14 was greatly diluted because it was absorbed by more living things. By applying what they believe to be a more accurate carbon-12/carbon-14 ratio, they obtained carbon-14 ages for coal and diamonds of a few thousand years.<sup>103</sup>

### Discussion

The RATE claim that the pre-Flood biomass was greater than today is based on the young-earth view that nearly all the plants and animals in the fossil record were killed by the Flood. The problem with this view is there are far too many animal fossils to represent a single generation of creatures that was on the Earth simultaneously. Based on the number of creatures in the fossil record, conservative estimates indicate there would have been at least 2,100 animals per acre and the Earth simply could not support that many organisms.<sup>104</sup> In addition, if the fossil record is a result of the Flood, one would expect to find a conglomeration of creatures in the so-called “Flood layers.” Instead, the layers contain very distinct creatures.

To support the contention that the pre-Flood carbon-14/carbon-12 ratio was lower, the RATE team points to the fact that the total carbon found in fossil fuels is at least 100 times greater than the total carbon found in the world today.<sup>105</sup> Again, this is based on the young-earth view of the Flood. They believe these deposits formed from biomass that was buried by the Flood, thus all the carbon they contain was in the pre-Flood world. Of course, if these deposits were formed over millions of years as mainstream scientists contend, they are the accumulation of millions of years of carbon. Thus, the RATE claim of a lower pre-Flood carbon-14/

carbon-12 ratio is not something rooted in empirical science, but a function of their Flood model.

Scientists have found fossil fuels vary widely in carbon-14 content. Some have no detectable carbon-14; some have quite a lot. This correlates with the natural radioactivity of the rocks surrounding the fossil fuels, particularly uranium-thorium decay series isotopes. As a result, most scientists believe carbon-14 in fossil fuels comes from the local decay of radioactive isotopes. Another hypothesis that is being explored is carbon-14 is produced by bacteria that grow in fossil fuels. Although it has not been demonstrated these organisms produce carbon-14, researchers believe it is very likely because they are known to produce other isotopes of carbon.<sup>106</sup>

Carbon-14 found in diamonds can also be attributed to outside sources. Diamonds form deep inside the Earth from virtually pure graphite/carbon. Because diamonds excavated from mines have not been exposed to the atmosphere, any carbon-14 they contain cannot be from the environment. Rather, it must come from the decay of nearby radioactive isotopes during, or after, the diamonds are formed. Therefore, radiation from uranium or other heavy metals must convert the carbon, or trace impurities like nitrogen, to carbon-14. For diamonds found on the Earth’s surface, there is a different explanation. Once diamonds are on the surface, they are exposed to cosmic rays that cause conversions that can produce carbon-14.<sup>107</sup> In fact, the RATE data seems to confirm this because the diamonds from mines had lower carbon-14 levels than those from Placer deposits—diamonds found in streams and exposed to cosmic rays.<sup>108</sup>

It should also be noted that the quantity of carbon-14 the RATE found in the diamonds was extremely small, about one-third the level they found in the coal samples. This was detected by a technique known as accelerator mass spectrometry, or AMS, that counts the number of carbon-14 atoms. Because carbon-14 is present in the environment, there are many potential sources of trace amounts of carbon-14 and the levels detected could be the result of sample contamination and/or machine noise.<sup>109</sup>

This RATE study poses no serious challenge to mainstream science. While little research has been conducted on the source of the carbon-14 in coal and diamonds, there are plausible explanations for its existence. Even the smallest amount of radioactive decay, exposure to cosmic rays, or contamination can account for the miniscule levels of carbon-14 the RATE team found. In addition, scientists have studied a wide variety of sources that record the history of carbon levels on the Earth. Not only is there no evidence of vastly different carbon levels prior to the Flood (4,500 years ago based on their model), but there is no indication of any significant event that altered carbon ratios over

the past 20,000-plus years.<sup>110</sup>

## CONCLUSION

Young-earth creationists have long claimed there is no evidence for an old Earth. The fact that billions of years of nuclear decay have occurred in Earth history has been denied by most young-earth creationists. Now, the RATE team has admitted that, taken at face value, radiometric dating data is most easily and directly explained by the Earth being billions of years old.<sup>111</sup> This is a remarkable development because no longer can young-earth creationists claim it is merely the naturalistic worldview that makes scientists believe rocks and minerals are millions or billions of years old.

Are the RATE findings sufficient grounds to reject radiometric dating? What is known to science is radioactive decay would produce the quantity of daughter products on the Earth in a timescale of millions or billions of years. Unknown to science and lacking any independent verification is the idea that nuclear decay rates were accelerated in the past by five orders of magnitude (100,000 times) or more.<sup>112</sup> Thus, we faced with a choice: either we can accept the vast majority of radiometric data that indicates the Earth is very old, or we can believe the Earth is 6,000 years old based on a handful of anomalous results. Looking at the data objectively, the RATE research simply does not meet the burden of proof necessary to abandon mainstream science.

Some may contend that God accelerated decay rates supernaturally, so the evidence lies beyond the limits of scientific inquiry. That is possible. As the Creator, God is certainly capable of altering the laws of nature. However, such a claim is an argument from silence. The Bible says nothing about God changing nuclear decay rates during the Flood, or of God intervening in the world to safeguard His creatures from the lethal heat and radiation. Nor do the Flood chapters describe a cataclysm of the proportion required by the accelerated decay model, or that Noah found the Earth had been radically changed when he emerged from the ark. Thus, those who make such an appeal are reading something into the biblical text.

For young-earth creationists, there is an additional problem. Young-earth creationists have consistently maintained decay was not part of the original creation, but something God instituted at the Fall (i.e., at Adam and Eve's sin).<sup>113</sup> This is a bedrock principle of the "no-death-before-the-Fall" theology. However, according to the accelerated decay hypothesis, some accelerated decay must have occurred during the creation week, long before Adam and Eve were created. Therefore, young-earth creationists who support the accelerated decay model will have to abandon, or revamp, that theology.

The RATE team has raised some interesting issues and perhaps the accelerated decay hypothesis holds promise. However, it is not only

premature, but irresponsible, for young-earth creationists to claim RATE proves anything. Even the RATE team admits the hypothesis creates huge scientific and theological problems they are nowhere close to solving and additional research is needed on nearly issue they examined.<sup>114</sup> Such a rush to judgment not only reflects poorly on the young-earth creationists making these claims, but the Christian community as a whole. To paraphrase the great Christian theologian Augustine, how can we expect unbelievers to trust our statements about spiritual things if we make outlandish statements about worldly things?<sup>115</sup> Obviously, we can't. Thus, it is our public witness we should be most concerned about, not promoting our sectarian views of the age of the earth.

*Greg Moore is president of the Seattle Chapter of Reasons to Believe. He is a trained RTB apologist and works for the City of Everett, WA.*

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## Seattle Chapter Reasons To Believe

### Who Are We?

The Seattle Chapter of Reasons To Believe is a local extension of the worldwide, interdenominational Reasons To Believe ministry. We exist to support our parent organization and foster local involvement in the ministry. We serve the Puget Sound area and are composed of Christians of different ages and backgrounds.

It is our conviction that the same God who created the universe inspired the Bible. Therefore, what God says through His word must agree with the facts of nature. We reject the notion that science and the Bible are at odds and provide a scientifically-sound and Biblically-faithful alternative to Darwinism and young-Earth creationism.

### What Do We Do?

Our mission is to remove the doubts of skeptics and strengthen the faith of believers. We provide scientific, historical and philosophical evidence that supports the Christian worldview and helps remove barriers to a belief in God, the Bible and the Gospel of Jesus Christ. We carry out this mission by:

- Helping people access RTB and other scientifically and biblically sound resources.
- Bringing nationally-known speakers into the area to promote the scientific reliability of the Bible.
- Assembling a team of local apologists to address questions about science, the Bible and related topics.
- Working with teachers and homeschoolers to achieve a balanced approach to the teaching of origins.
- Building alliances with local churches, ministries and groups to maximize the exposure of the RTB ministry.
- Reaching out to unbelievers with gentleness and respect, encouraging them to evaluate their worldviews.

We welcome your involvement and support. For more information, contact us at [seattle@reasons.org](mailto:seattle@reasons.org). Tax-deductible donations can be sent to: Seattle RTB, PO Box 99683, Seattle, WA 98139-0683.

## Questions? Get Answers.

Whether you are looking for scientific support for your faith or answers to questions about God, the Bible, and science, contact us at [seattle@reasons.org](mailto:seattle@reasons.org). You can also call the RTB hotline seven days a week, 5:00 to 7:00 PM at 626-335-5282.