

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

ICR.org

SEPTEMBER 2019

VOL. 48 NO. 9



Black Hills Sites Showcase Creation and the Flood

page 5

Are Blue Eyes in Humans a Mutation?

page 14

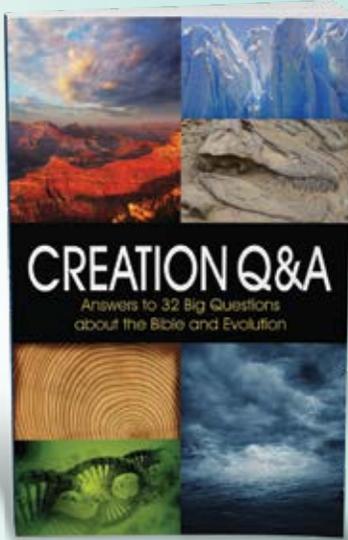
Deep-Space Objects Are Young

page 10

Evolutionism Poisons Christian Worship

page 18

Do You Have Questions about Creation, Climate Change, or Radiometric Dating? We Have Answers!



ALREADY IN ITS 3RD PRINTING!

CREATION Q&A

Answers to 32 Big Questions about the Bible and Evolution

\$2.99

BCQAA

What is the debate between creation and evolution, and does it matter?

Gain an understanding of creation from a scientific perspective, catch quick answers to a variety of evolutionary arguments, and discover a world of top-notch research that confirms what the Bible says about our origins. If you've got questions about genetics, radiometric dating, geology, dinosaurs, the Big Bang, Noah's Ark, or even tree rings—we've got answers. Think evolution is a fact? After just a few pages, you may start thinking differently.

Buy five *Creation Q&A* books for \$10.00 and give four away to your family and friends!

THE CLIMATE CHANGE CONFLICT

Keeping Cool over Global Warming

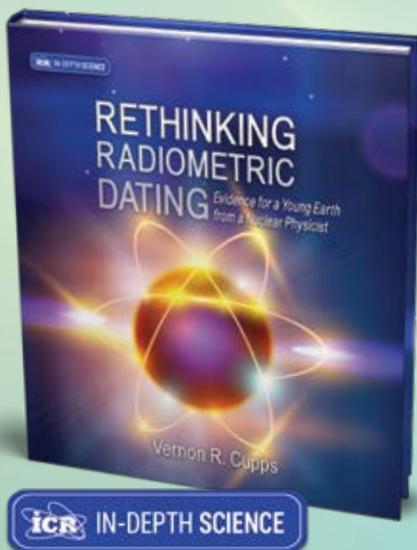
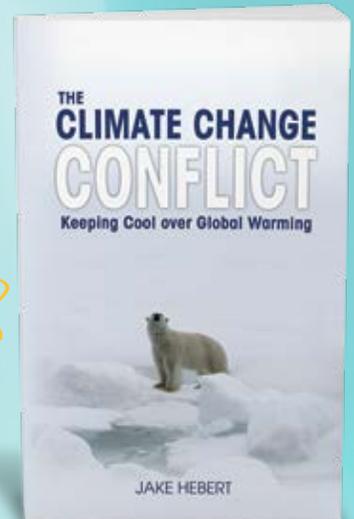
Jake Hebert, Ph.D.

Climate change is a hot topic. From politics to theology, debate rages over whether we face an imminent climate catastrophe and whether drastic action is needed to stop it. But how much is real science and how much is just political alarmism? In *The Climate Change Conflict: Keeping Cool over Global Warming*, Dr. Jake Hebert dives into the confusing world of climate change science and brings much-needed clarity from a scientific and biblical perspective.

Buy five and save 10%! Buy 20 and save 20%!

\$2.99

BTCCC



RETHINKING RADIOMETRIC DATING

Evidence for a Young Earth from a Nuclear Physicist

Vernon R. Cupps, Ph.D.

\$24.99

**Introductory
Low Price!**

(\$29.99 Retail)

BRRD Hardcover

How old is Earth? Many believe it to be around 4.6 billion years. This number is used so often that most people accept it as a scientific fact. But are the dating methods that appear to verify this age valid? With decades of experience in top nuclear physics laboratories, ICR's Dr. Vernon Cupps tackles this question from a scientific and biblical perspective. He examines the major radiometric dating methods and the significant problems with the dating methodology employed by many scientists.

Published by
INSTITUTE FOR CREATION RESEARCH

P. O. Box 59029
Dallas, TX 75229
214.615.8300
ICR.org

Acts & Facts is a free publication.
For subscription information,
call 800.337.0375,
visit ICR.org/subscriptions,
or write to ICR at the above address.

EXECUTIVE EDITOR

Jayne Durant

SENIOR EDITOR

Beth Mull

EDITORS

Michael Stamp
Truett Billups
Christy Hardy

DESIGNER

Dennis Davidson

No articles may be reprinted in whole or in part without obtaining permission from ICR.

Copyright © 2019

Institute for Creation Research

All Scripture quotations are from the New King James Version unless otherwise indicated.



Front cover: Devils Tower. Image credit: Joel Kautt



feature

5 Black Hills Sites Showcase Creation and the Flood

TIM CLAREY, PH.D.

research

9 Research Presented at a Secular Conference

BRIAN THOMAS, PH.D.

impact

10 Deep-Space Objects Are Young

JAKE HEBERT, PH.D.

back to genesis

14 Are Blue Eyes in Humans a Mutation?

JEFFREY P. TOMKINS, PH.D.

15 Confronting a Clever Classroom Con

JAKE HEBERT, PH.D.

16 ICR Scientists Present Latest Research in Wisconsin

TIM CLAREY, PH.D.

18 Evolutionism Poisons Christian Worship

RANDY J. GULIUZZA, P.E., M.D.

creation q & a

20 Does Palo Duro Canyon Show Deep Time?

BRIAN THOMAS, PH.D.

apologetics

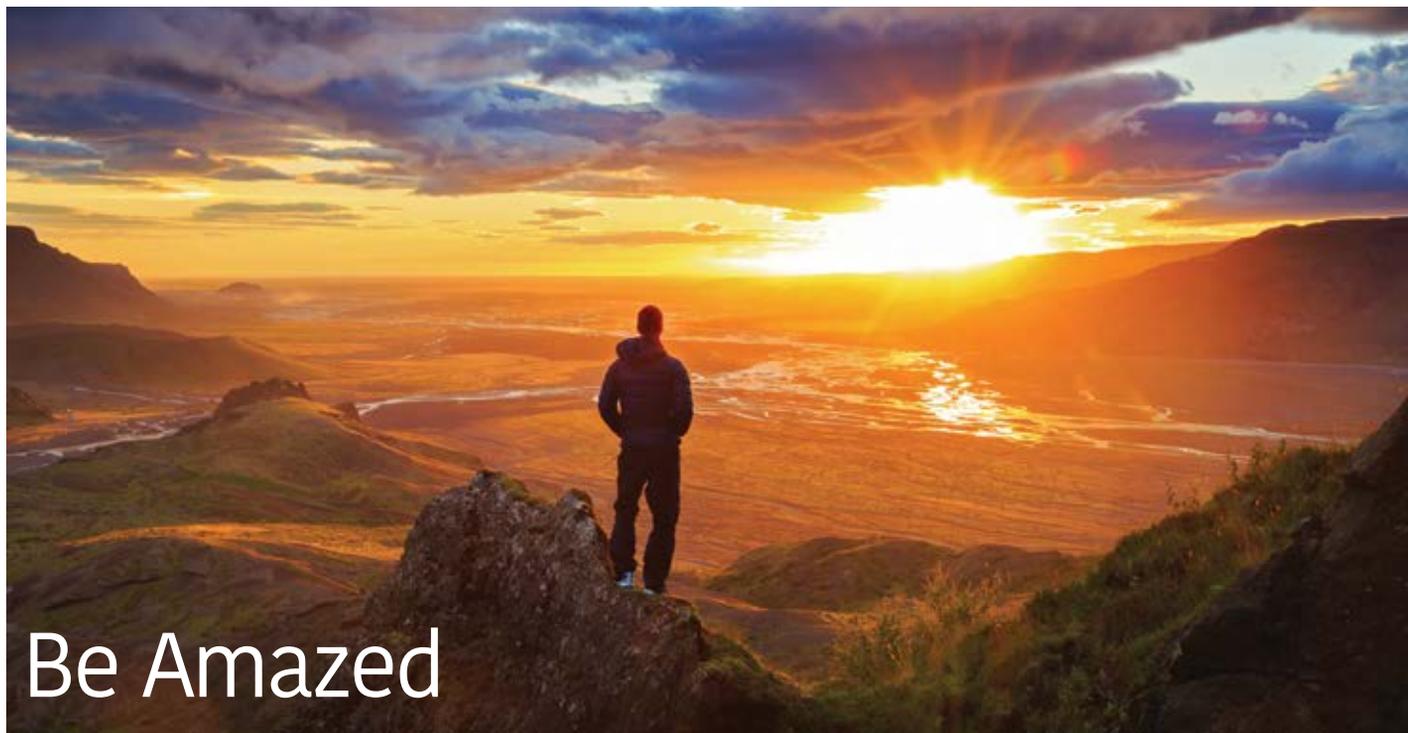
21 Deep Wonders of Slapping Sharks and Snapping Shrimps

JAMES J. S. JOHNSON, J.D., TH.D.

stewardship

22 Small Gifts Add Up

HENRY M. MORRIS IV



Be Amazed

When was the last time you were amazed by God? Perhaps it's time to stop and ponder—to pause and consider the works of God.

Ponder the wonders of creation. Have you really looked at the details in a leaf or the intricacy of a butterfly's wing? Have you closed your eyes and relished the smell of the earth after a rain? Do you experience joy when you hear the melody in a young child's voice? Have you pondered the magnitude of a rushing waterfall? Does your breath catch at the simple beauty of a newborn's fingers as they clasp your own?

We live in a culture that tends to pull us away from recognizing and responding to God's work in our world. Dr. Randy Giulizza encourages us to “consider the way the doctrine of biblical creation and the historical challenge from natural evolutionism affect our thoughts about the function of worship” (“Evolutionism Poisons Christian Worship,” pages 18-19). ICR exists to counter evolution and promote biblical cre-

ation, and that's why we built the ICR Discovery Center for Science & Earth History (see update on page 17). In every event and resource we produce, we seek to highlight the wonders of God's creation to inspire worship and draw others to Him.

In this issue, we point to God's incredible works over all creation. Dr. Jake Hebert describes how spiral galaxies, blue stars, and globular clusters affirm that our universe was recently designed by our all-powerful Creator (“Deep-Space Objects Are Young,” pages 10-13). God's handiwork is not limited to the heavens—you'll also find His mark in tiny details like the color of your eyes. Dr. Jeff Tomkins reveals how even blue eyes are part of the genetic variation built into human DNA by “our Creator, who loves variety” (“Are Blue Eyes in Humans a Mutation?” page 14). And Dr. Jim Johnson emphasizes the evidence of God's design in the depths of the sea (“Deep Wonders of Slapping Sharks and Snapping Shrimps,” page 21). ICR scientists and scholars are

constantly researching the intricacies of God's work and bringing them to light. You can find out some of the creative ways they are doing this in this month's feature (pages 5-7) and research (page 9) articles.

But knowing about God's work does little good if we don't take time to recognize its significance. So as we encounter God's creation, let's pause in awe that He spoke everything into existence. Let's remember He breathed life into humanity and His very breath gave us a beginning. And let's celebrate the work He did on the cross so that we can know Him and enjoy His work forever.

Psalm 46:10 encourages us to “be still, and know that [He is] God.” Maybe it's time for a break from the routine—to pause and ponder. Consider His wonders, works, and words, and be amazed.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR

Black Hills Sites Showcase Creation and the Flood

TIM CLAREY, PH.D.

article highlights

- ICR scientists periodically lead field trips to places like Grand Canyon, Mount St. Helens, and South Dakota's Black Hills that showcase evidence for creation.
- People who attend these tours have the chance to get an up-close look at the evidence and interact with ICR scientists.
- ICR's Tim Clarey and Randy Guliuzza recently led several groups to the Black Hills, Devils Tower, a giant coal mine, Wind Cave, Badlands National Park, and Mount Rushmore.
- These trips are yet another way ICR spreads the word on biblical creationism.

In June, Institute for Creation Research scientists Dr. Randy Guliuzza and Dr. Tim Clarey participated in the Black Hills Creation Conference in Rapid City, South Dakota. They also led three pre-conference field trips through the Black Hills, visiting Devils Tower, Mount Rushmore, and surrounding areas. Each location displayed evidence for the Genesis narrative.

The first trip went to the coal mines near Gillette, Wyoming, and then on to Devils Tower. Both are located in the Powder River Basin about two hours west of Rapid City. These coal beds are found within Lower Cenozoic rock layers. They contain the largest reserves of low-sulfur subbituminous (black lignite) coal in the world. Roughly 42% of the present coal production in the U.S. comes from the Powder River Basin.¹ At least six or more coal beds in the basin exceed 100 feet in thickness, and some individual beds have been shown to extend for over 75 miles.² Some of these coal beds are more than 200 feet thick in places, such as the Big George coal layer.¹



Powder River Basin coal mine

These vast coal seams were deposited during the Flood as the floodwaters receded, trapping massive amounts of plant-rich debris in mats between sediments in the subsiding basins. Trees like the *Metasequoia* that grew at higher pre-Flood elevations were torn loose and transported late in the Flood year, becoming the extensive coal beds of the Cretaceous and Paleogene Systems in the Powder River Basin of Wyoming and Montana. For coal to form, plant material must be transported and buried before it decays. This process needs to happen quickly, and the Genesis Flood provided the mechanism.

Devils Tower is another unique geological feature. It's composed of an unusual magma chemistry that was emplaced at about the same time the Black Hills formed in the Early Cenozoic as the floodwaters receded. This highly fractured monolith rises over 1,000 feet above the surrounding sedimentary units it intruded through. Geologists call the observed fracture pattern *columnar jointing* since it formed long hexagonal-shaped columns during cooling. The columns are crumbling at a relatively rapid rate and show only thousands of years of erosion.

On the way back to Rapid City, we stopped off at private land south of Devils Tower and discovered several dinosaur bone fragments within an outcrop of the Jurassic Morrison Formation. It is the first known discovery of Jurassic dinosaurs in that vicinity. The bones could be part of a large bone field, and some ICR staffers want to return for a more extensive dig.

Our second day took us to Badlands National Park, about 90 miles east of Rapid City. Here participants observed middle Cenozoic sediment shed from the top of the Black Hills. These picturesque layers were deposited as the floodwaters continued to retreat, entombing many large mammals that were washed off the tops of the highest pre-Flood locations.

Close-up of a modern *Metasequoia* specimen



Image credit: Copyright © 2010 M. Manske. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.



Devils Tower



Dr. Tim Clarey and Dr. Randy Guliuzza discuss the surprise fossil find



The eerie-looking Badlands



Mount Rushmore



Image credit: Joel Kautt

The third day included a tour of Wind Cave National Park along the south flank of the Black Hills. This enormous cave system also developed late in the Flood as massive volumes of acid-laden water drained through fractures, dissolving passages in the uplifted limestone beds. The fractures were created while the Black Hills and the rest of the Rocky Mountains were being thrust upward in the Early Cenozoic. Wind Cave is within the same limestone Flood layer that extends all the way to Grand Canyon, about 1,000 miles to the southwest (a Redwall equivalent).

Finally, we viewed Mount Rushmore and explained its geological origin in light of the creation week and the Flood. The faces of four U.S. presidents were carved in the Harney Peak Granite, which was likely a remnant of crust formed on Day 3 of the creation week as God spoke the dry land into existence (Genesis 1:9). Much of the surrounding crystalline rock is composed of a highly metamorphosed schist (a type of rock changed by heat and pressure) with a well-developed layering called a *foliation*. This rock unit was likely squeezed and cooked in the chaos of the Flood and subsequent uplift of the Black Hills.

Overall, the three-day field trips showcased creation week rocks, Flood-deposited layers, and many erosional and depositional units that formed during the receding phase of the Flood. The Black Hills conference then continued with two full days of presentations by Drs. Guliuzza and Clarey, and Dr. Kevin Horton of the Institute for Biblical Authority. We hope you can join us for future conferences and trips. 📖

References

1. Scott, D. C. and J. A. Luppens. 2013. *Assessment of Coal Geology, Resources, and Reserve Base in the Powder River Basin, Wyoming and Montana*. U.S. Geological Survey Fact Sheet 2012-3143.
2. Scott, D. C. et al. 2011. *Assessment of Coal Geology, Resources, and Reserves in the Northern Wyoming Powder River Basin*. U.S. Geological Survey Open-File Report 2010-1294.

Dr. Clarey is Research Associate at the Institute for Creation Research and earned his Ph.D. in geology from Western Michigan University.



**AUGUST 28,
SEPTEMBER
4, 11, 18**

McKinney, TX | First Baptist Church Origins Series |
(B. Thomas, F. Sherwin, T. Clarey, J. Johnson) 972.542.0041

SEPTEMBER

7-8

Jackson, NJ | Jackson Baptist Church | (R. Guliuzza, T. Clarey) 732.928.0080

SEPTEMBER

8

Whitesboro, TX | First Baptist Church | (J. Tomkins, J. Hebert) 903.564.3546

SEPTEMBER

13

Dallas, TX | Dallas Theological Seminary | (R. Guliuzza) 214.615.8364

SEPTEMBER

15-16

CENTRAL BAPTIST CHURCH
1991 FM 158
COLLEGE STATION, TX 77845
979.776.9977

SCHEDULE

SUNDAY, SEPTEMBER 15

10:00 a.m. K-3rd Grade Sunday School – “Dinosaurs and the Bible”
11:00 a.m. 4th & 5th Grade Sunday School – “Dinosaurs and the Bible”
5:00 p.m. 6th Grade to Adult Service – “Adam, Not Apes”

MONDAY, SEPTEMBER 16

6:00 p.m. Senior Adults – “Why the World Is Only Thousands of Years Old”

People are either supernaturally created or they evolved from lower forms of life over millions of years. Dr. Thomas will present clear evidence for biblical creation and show how human, ape, and dinosaur fossils fit the Bible’s timeline.



Brian Thomas, Ph.D.

SAVE THE DATE

OCTOBER

11-12

National Conference on Christian Apologetics | Charlotte, NC |
Calvary Church | (J. Hebert) Conference.SES.edu

OCTOBER

12

Central Texas Creation Conference | Pflugerville, TX |
Calvary Chapel Austin | (T. Clarey) CentralTexasCreation.com

Rescheduled for next year September 16-20, 2020

Flint, TX | Flint Baptist Church | 903.894.7649

For information on event opportunities, email the Events department at Events@ICR.org or call 800.337.0375.

Research Presented at a Secular Conference

This past summer, a colleague and I went to a secular science conference seeking critique from our non-creationist colleagues over what amounts to creation research. Their reactions surprised us.

Creation science done well should be defensible to any reasonable scientist. That was our goal during the international event where, for the better part of a week, almost 7,000 scientists interacted with one another. We went in expecting some shock from our evidence for recent creation, but only two out of dozens so much as raised their eyebrows. Most who read our findings just rubbed their chins. Afterward we thought of four reasons why our secular colleagues stayed so serene—and a few reasons why we would do it all again.

My recently completed Ph.D. research extended into the project I laid out for this conference on a three-foot-long poster. I used two independent techniques to detect and identify collagen protein from the same set of bones on which I used a new technique to visualize that collagen. The two independent techniques confirmed the new technique's revelation of collagen remnants in very old bone. However, one of those independent techniques involved col-

lagen extraction for radiocarbon dating—a standard procedure for archaeology. I showed a successful collagen extract from dinosaur bone (not archaeological, but much older fossil material). The poster showed collagen and radiocarbon results for medieval, Ice Age, and dinosaur bones.

Neither radiocarbon nor collagen lasts even one million years. My research thus showed two clock-like processes that indicate a young age in the specimens. So why didn't secular scientists call us quacks?

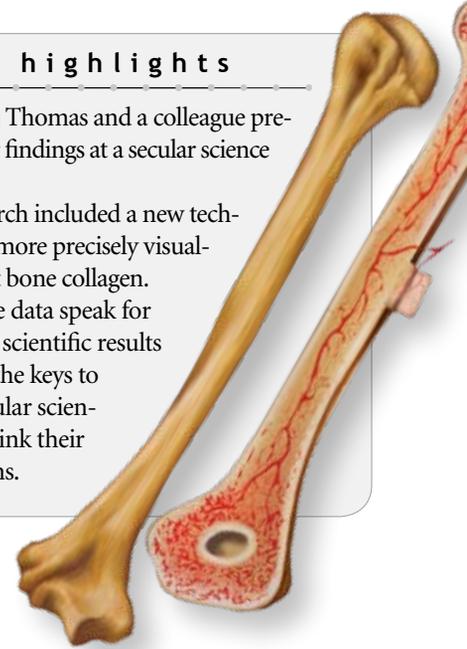
First, this conference featured new technologies. Attendees had their minds trained on repeatable processes (part of the scientific method) and innovations—not on non-repeatable phenomena like the timing of buried bones.

Second, I worded the results to appeal to secular minds. Rather than trying to swing a sledgehammer against the entire juggernaut of evolution, we simply let our data do the talking. This meant that our fellow scientists would have to mull over our results, consider what they imply, and make their own conclusions.

This leads to our third reason for serene reactions. Most attendees zipped from

article highlights

- ICR's Brian Thomas and a colleague presented their findings at a secular science conference.
- Their research included a new technique that more precisely visualizes ancient bone collagen.
- They let the data speak for itself. Hard scientific results are one of the keys to getting secular scientists to rethink their assumptions.



one poster to the next without spending the time to let the data interact with their core beliefs. That interaction might happen later.

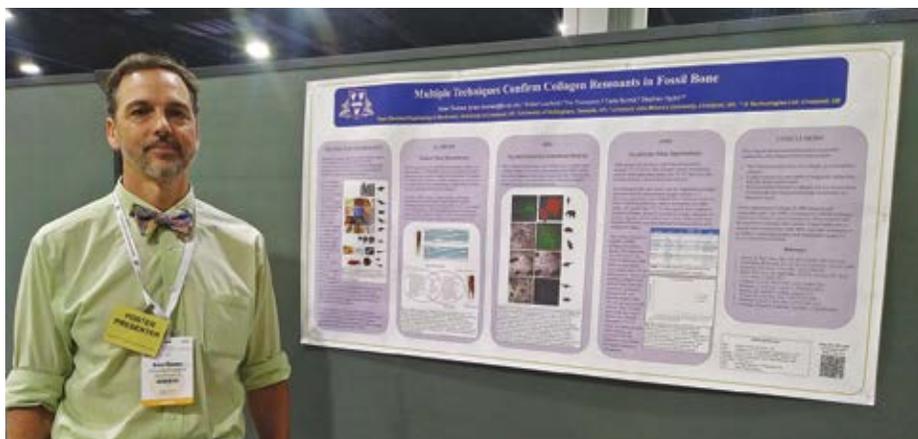
The fourth reason has to do with expectations. Secular scientists expect virtually all their colleagues to march in step with Darwin. Those who pigeonhole Darwin-doubters as religious ignoramuses never expect to see them at a science conference, let alone presenting data that damage Darwinian deep time. We often fail to notice what we don't expect to see, even if it's right in front of us.¹

We plan to keep presenting good science in secular conferences and journals. If our research direction is off-base or if we misinterpreted our results, then secular experts might help us steer straight. We also hope our results will plant seeds of doubt in their faith in evolutionary time. In nurturing new friendships and open dialogue, those seeds of doubt could grow toward reconsideration of the Bible as God's Word and of the Lord Jesus as Creator and Savior. ✞

Reference

1. Jesus mentioned this in John 3:11-12. Jesus' own disciples didn't expect their Lord to rise from the grave, so they thought Jesus was not actually in front of them—only a ghost—until they saw Him swallow food and heard Him reason with them.

Dr. Thomas is Research Associate at the Institute for Creation Research and earned his Ph.D. in paleobiochemistry from the University of Liverpool.





Deep-Space Objects Are YOUNG

article highlights

- The “winding up” of spiral galaxies, short-lived blue stars, and neutron stars within globular clusters all indicate the universe is much younger than claimed by secular scientists.
- Because the age estimates for these objects are maximum possible ages, the true ages could be as young as 6,000 years, consistent with Scripture.
- Despite objections by skeptics, these are valid arguments for a young universe.

Secular astronomers claim our universe is unimaginably ancient—almost 14 billion years old. Yet the Bible clearly teaches that God created the universe in the relatively recent past, about 6,000 years ago. A previous Impact article described how observations in our own solar system are much more consistent with recent creation than with long ages.¹ But what about observations *beyond* our solar system? Are “deep space” observations more consistent with a young universe or an old one?

“Winding Up” of Spiral Galaxies

Spiral galaxies are so named because of their beautiful spiraling



Figure 1. The Whirlpool Galaxy is a well-known spiral galaxy.

Image credit: NASA and ESA. Public domain. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.

arms (Figure 1). A spiral galaxy slowly spins around an axis of rotation perpendicular to its disk. Stars, dust, and gases closer to the axis of rotation take less time to complete a revolution than material that is farther out. As a result, the spiral arms “wind up,” and eventually the spiral shape becomes unrecognizable. Back-of-the-envelope calculations and simplified models suggest that a few hundred million years of additional winding would cause the spiral structure to become noticeably tighter than what we observe. However, some astronomers claim the spiral structure would be *completely destroyed* in a few hundred million years!² In any case, winding would certainly have obliterated the spiral structure after five billion years or so (Figure 2). Yet

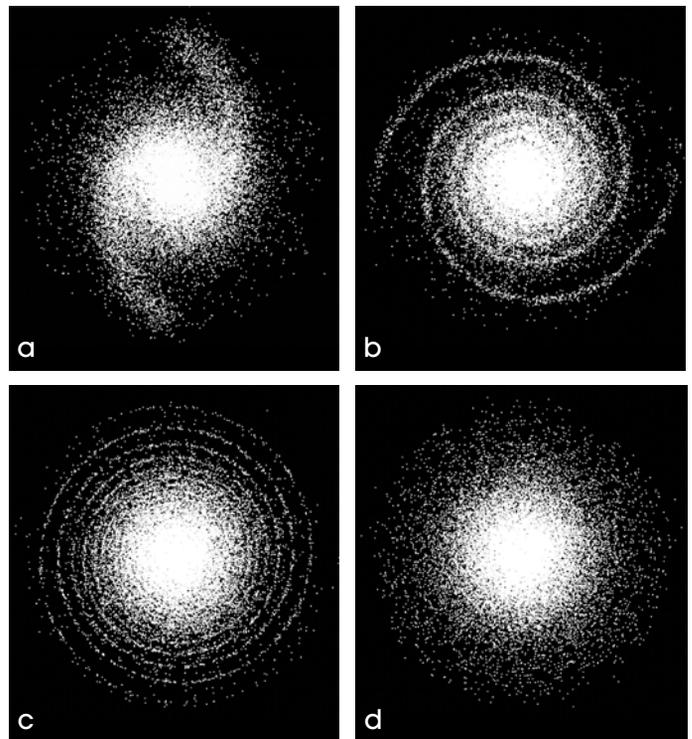


Figure 2. Results of a simplified computer model of spiral galaxy winding. Assuming the spiral galaxy depicted in a) has an age of zero, the degree of winding in b) is after 300 million years and in c) is after one billion years. d) After five billion years, the spiral structure has been erased. Image credit: Jake Hebert

secular scientists claim that many spiral galaxies, including our own Milky Way galaxy, are around 10 billion years old. If this is the case, then why are they still recognizable as spiral galaxies?

This argument assumes that the spiral arms are physical objects and that the same material remains within a particular spiral arm over time. Secular scientists argue this isn’t necessarily the case. They claim spiral arms are not real physical structures but are instead high-density areas that rotate around the galaxy at a different rate than the disk materials. These high-density areas are similar to obstructions or “clogs” of cars in a traffic jam. These traffic obstructions persist over time, even though different individual cars are continually passing into and out of the “clog.” In a similar fashion, secular scientists would argue that different stars, as well as gases and dust particles, are continually moving through the high-density regions. Supposedly, this allows the spiral structure to persist for billions of years. It also supposedly allows the formation of new stars.²

However, it’s premature to say that this “spiral density wave” model solves the problem. It was proposed in the 1940s and refined in the 1960s, but secular scientists are still working on it.^{3,4} The results of computer simulations have been inconsistent, with some seeming to confirm the theory⁵ and others appearing to contradict it.^{6,7} One such simulation suggested that the stars really do rotate with the spiral arms after all.⁷

Secular astronomers have admitted the theory has difficulties. What causes the density wave in the first place? ^{8,9} What maintains the wave over time? ⁸ According to an online astronomy encyclopedia:

The density wave model is a work in progress, with one of the big remaining questions being how the density waves survive for such long periods. Given the enormous amount of energy required to compress the interstellar gas and dust, one would expect them to die away over time. ¹⁰

For these reasons, spiral galaxies are a valid young-universe argument, regardless of secular objections.

Hot Blue Stars

High-mass stars are hotter and bluer than less massive stars, and they consume their nuclear fuel much more quickly. By secular reckoning, a hot blue star with a mass 15 times greater than our sun has a lifetime of just 15 million years (Figure 3). The very hottest blue stars, with masses around 25 times greater than our sun, have lifetimes of just a few million years. ¹¹ Creation astronomer Ron Samec pointed out that these estimated lifetimes are based on computer models of stellar evolution. These models are calibrated by assuming that our sun is 4.6 billion years old. ¹²

Yet nothing requires scientists to make this assumption. Famed solar astronomer John Eddy once stated:

I suspect...that the sun is 4.5 billion years old. However, given some new and unexpected results to the contrary, and some time for frantic recalculation and theoretical readjustment, I suspect that we could live with Bishop Ussher's value [about 6,000 years] for the age of the earth and sun. I don't think we have much in the way of observational evidence in astronomy to conflict with that. ¹³



Figure 3. The Pleiades star cluster contains hot blue stars with lifetimes (based on uniformitarian assumptions) of around 15 million years. The very hottest blue stars have lifetimes of just a few million years.

Image credit: NASA, ESA, AURA/Caltech, Palomar Observatory. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.

Creation scientists argue that the sun and stars are truly just thousands of years old. So, these estimated star lifetimes, obtained by assuming our sun is 4.6 billion years old, could have large errors. In any case, even by secular reckoning hot blue stars can only last millions of years before they eventually explode. So, if the universe is 13.8 billion years old, why do hot blue stars still exist?

Secular scientists claim new stars are born to replace old blue stars that have died. The spiral density wave model supposedly explains the continued presence of blue stars in spiral galaxies. But, as noted earlier, this model has problems. And what about blue stars found in places other than spiral galaxies?

Furthermore, naturalistic star formation, though perhaps barely possible, is extremely unlikely. Astrophysicist Neil deGrasse Tyson, no friend of the creation movement, once remarked, “The scary part is that if none of us knew in advance that stars exist, front line research would offer plenty of convincing reasons why stars could never form.” ¹⁴

One of these reasons is that secular star formation theories require at least one generation of stars to already be in existence. ¹⁵ But a theory of star formation that needs pre-existing stars is not very convincing! The very existence of billions of stars in our universe is a silent rebuke to the Big Bang model, and the continued existence of hot blue stars is an argument that our universe is young.

Globular Clusters

Globular clusters are beautiful spherical collections of stars that orbit their host galaxies. Our Milky Way galaxy contains about 150 known globular clusters (Figure 4). By secular reckoning, globular clusters are around 9 to 10 billion years old—or even older. ¹⁶

Neutron stars within globular clusters are a problem for old-universe beliefs. As the name implies, a neutron star is composed of subatomic particles called *neutrons*. A typical neutron star may have a mass about one-and-a-half times greater than our sun, but this material is squeezed into a body only 10 miles across. This means that neutron stars are incredibly dense: A tablespoon of neutron star material would have the same mass as Mt. Everest! ¹⁷

Neutron stars are thought to be formed in certain supernova explosions. Neutron stars receive a noticeable “kick” from the explosions, giving them speeds very different from their “parent” stars. These speeds can be hundreds or even thousands of kilometers per second.

The higher a neutron star’s speed, the easier it can escape the cluster’s gravitational pull. In fact, the speeds of most neutron stars are so high that they should be able to escape from globular clusters in just thousands of years. Furthermore, high-mass stars (like those in globular clusters) are supposed to generate neutron stars fairly quickly. Since globular clusters are supposedly billions of years old, few if any neutron stars should still remain within globular clusters. Yet some Milky Way globular clusters contain hundreds or even



Figure 4. Messier 80, one of the densest of the Milky Way's 150 or so globular star clusters.

Image credit: NASA and ESA. Public domain. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.

thousands of such neutron stars.¹⁸ This “neutron star retention problem” strongly suggests that globular clusters are just thousands, not billions, of years old. The presence of black holes within globular clusters may also be a problem for deep time for a similar reason.^{19,20}

Furthermore, the innermost stars within some globular clusters are rotating around a central axis. Yet gravitational interactions between stars should have long ago erased any such rotational tendency.

Theory and numerical simulations of globular clusters indicate that any central rotation should be erased on relatively short timescales. Because these globular clusters were formed billions of years ago, we would expect that any rotation signature would have been eradicated by now.²¹

Nevertheless, many globular clusters show this rotational tendency. Perhaps globular clusters aren't billions of years old after all.

What about Distant Starlight?

Distant galaxies are millions, and even billions, of light-years away from us. Since the speed of light is finite, secular scientists argue that distant starlight must take millions and billions of years to reach us.

Creation scientists disagree. The Hebrew text in Genesis demands that the light from stars was emitted on Day 4 of the creation week and that it also arrived that same day.²² Perhaps this was a bona fide miracle, or perhaps the laws of physics God established allow distant light to naturally reach us in a short time. If the latter, then the solution almost certainly involves Einstein's theory of relativity, and creation scientists have proposed a number of suggestions as to how God may have done this. It should be noted that the Big Bang model has its own version of this problem, which is one of the main reasons

secular cosmologists added inflation theory to the model.²³ But inflation theory has become so strange that even secular scientists have harshly criticized it.²⁴

Conclusion

Other deep-space objects also pose problems for deep time. Secular scientists claim that distant supermassive black holes formed less than a billion years after the supposed Big Bang, but they have difficulty explaining how such enormous objects could naturally form so relatively quickly.²⁵ Transitory structures in the Eagle Nebula's Pillars of Creation are so short-lived that secular scientists think it is an amazing coincidence we are able to observe them today.²⁶

Despite the dogmatic assertions of secular scientists, their claim that the universe is billions of years old is not a foregone conclusion. Challenges confront both the creation and secular models, but the preponderance of evidence clearly favors recent creation. ✎

References

1. Hebert, J. 2018. Our Young Solar System. *Acts & Facts*. 47 (9): 10-13.
2. Freedman, R. A. and W. J. Kaufmann III. 2002. *Universe: Stars and Galaxies*. New York: W. H. Freeman and Co., 576-579.
3. Lin, C. C. and F. H. Shu. 1964. On the spiral structure of disk galaxies. *Astrophysical Journal*. 140: 646-655.
4. Shu, F. H. 2016. Six Decades of Spiral Density Wave Theory. *Annual Review of Astronomy and Astrophysics*. 54 (1): 667-724.
5. Peterken, T. G. et al. 2019. A direct test of density wave theory in a grand-design spiral galaxy. *Nature Astronomy*. 3: 178-182.
6. Foyle, K. et al. 2011. Observational Evidence Against Long-Lived Spiral Arms in Galaxies. *The Astrophysical Journal*. 735 (2): 101.
7. New theory of evolution for spiral galaxy arms. *Phys.org*. Posted on phys.org April 21, 2011, accessed July 1, 2019.
8. Strobel, N. 2019. Nick Strobel's Astronomy Notes. Posted on astronomynotes.com, accessed July 5, 2019.
9. Mihos, C. Astronomy 222 – Galaxies and Cosmology Notes. Case Western Reserve University. Posted on burro.cwru.edu.
10. Density Wave Model. COSMOS - The SAO Encyclopedia of Astronomy. Swinburne University of Technology. Posted on astronomy.swin.edu.au, accessed July 8, 2019.
11. Freedman and Kaufmann, *Universe: Stars and Galaxies*, 481.
12. Samec, R. G. and E. Figg. 2012. The apparent age of the time dilated universe 1: gyrochronology, angular momentum loss in close solar type binaries. *Creation Research Society Quarterly*. 49 (1): 5-19.
13. Kazman, R. G. 1978. Interview with John A. Eddy. It's About Time: 4.5 Billion Years (a report on the symposium at Louisiana State University). *Geotimes*. 23 :18. Cited in Lubenow, M. 1992. *Bones of Contention*. Grand Rapids, MI: Baker Book House, 205. Emphasis in Lubenow.
14. Tyson, N. deGrasse. 2007. *Death by Black Hole: And Other Cosmic Quandaries*. New York: W. W. Norton & Company, 187.
15. One popular explanation is that the shock from a supernova compresses interstellar gas into a high-enough density for star formation to occur. But a supernova is an exploding star!
16. Klesman, A. Globular clusters might be younger than we thought. *Astronomy*. Posted on astronomy.com June 18, 2018, accessed May 28, 2019.
17. Mikles, V. If a tablespoon of a neutron star were placed on Earth's surface, what would happen? *Astronomy*. Posted on astronomy.com August 28, 2018, accessed June 6, 2019.
18. Nethercott, P. 2016. Neutron Stars in Globular Clusters: Evidence of Young Age? *Creation Research Society Quarterly*. 53 (1): 14-18.
19. Surprising black-hole discovery changes picture of globular star clusters. *Phys.org*. Posted on phys.org October 3, 2012, accessed July 1, 2019.
20. Davis, J. Physicists find black holes in globular star clusters, upsetting 40 years of theory. *Phys.org*. Posted on phys.org November 4, 2013, accessed May 8, 2019.
21. University of Texas McDonald Observatory press release. Globular clusters rotate at heart. *Phys.org*. Posted on phys.org May 9, 2014, accessed May 8, 2019.
22. Johnson, J. J. S. 2018. Uniformitarians Stumble on Distant Starlight. *Acts & Facts*. 47 (1): 21.
23. Coppedge, D. F. 2007. The Light-Distance Problem. *Acts & Facts*. 36 (6).
24. Hebert, J. Big Bang Blowup at Scientific American. *Creation Science Update*. Posted on ICR.org May 29, 2017, accessed July 5, 2018.
25. Saplakoglu, Y. Zeroing in on How Supermassive Black Holes Form. *Scientific American*. Posted on scientificamerican.com September 29, 2017, accessed April 10, 2019.
26. Hebert, J. The Hubble 'Pillars of Creation' Revisited. *Creation Science Update*. Posted on ICR.org January 19, 2015, accessed July 1, 2019.

Dr. Hebert is Research Associate at the Institute for Creation Research and earned his Ph.D. in physics from the University of Texas at Dallas.



When it comes to the history of basic human traits, an evolutionary myth about eye color often pops up. The secular story maintains that blue eyes are the result of a genetic mutation that occurred in the recent evolutionary history of modern humans. This narrative is rooted in the belief that modern humans originally evolved from dark-skinned, dark-eyed ancestors from Africa. As the story goes, a mutation occurred when humans migrated into more northerly climates where the trait was supposedly favored by the low-light environment. But, as I've discussed in previous articles, this out-of-Africa idea is contradicted by both genetic and linguistic data.¹

As with most traits that were once thought to be very simple and only controlled by a few genes, eye color now appears to be much more elaborately controlled than previously believed.² Human eye color variation is a result of diverse levels and distribution patterns of melanin pigment in the iris. Genetic studies have determined that it's a complex trait controlled by a number of different genes that interact with each other, with some genes playing larger roles than others.³ A significant portion of the melanin variation is controlled by a regulatory element, a specialized segment of DNA that acts somewhat like a programmable light switch. This particular stretch of DNA binds specific groups of regulatory proteins that control a gene associated with melanin production.

People with blue eyes have a common variation in the DNA of this region, and it binds a slightly different set of regulatory proteins compared to that of people with brown eyes.³ Because there are different highly specified sets of proteins that interact with the regulatory DNA in the various patterns of eye color, the

Are Blue Eyes in Humans a Mutation?

article highlights

- Secular scientists traditionally believed that blue eyes came from a genetic mutation.
- Recent research shows the blue-eye trait isn't a mutation—it's a common genetic variant associated with eye color.
- This blue-eye trait has been found in the DNA of northern Europeans and Middle Eastern people groups that lived thousands of years ago, and some of them had dark skin.

blue-eye trait isn't really a mutation at all. It's actually the result of a specific genetic program that varies eye color.

The biology and genetics of the eye color trait indicate a suite of genetic program variants that the Creator placed in humanity at the beginning of creation. Several recent secular genetic studies have shown that the blue-eye trait existed in the DNA of some of

the oldest known humans. In 2018, one research study found this trait in the DNA of two different human remains from northern Europe that were allegedly 9,000 and 7,000 years old. The older individual was believed to have also had dark skin.⁴

Another recent report described the presence of the trait in the DNA of human remains found in Israel with an alleged age of about 6,500 years.⁵ In fact, this study also reported that almost 50% of the people in this Middle Eastern population had blue eyes! While the secular dates for these studies are likely inflated due to the influence of evolutionary presuppositions that permeate archaeology, it's clear that blue eyes were a common human trait throughout Europe and the Middle East about 4,000 years ago, a time when Earth was being repopulated after the global Flood and the dispersion from Babel.

Based on research in ancient DNA and molecular biology, it's clear the blue-eye trait is not some random mutation that occurred as humans were allegedly evolving from dark-eyed and dark-skinned ancestors coming out of Africa. Blue eyes, along with other variants (brown, green, etc.), can be found in humans of many different skin colors and people groups and are part of the natural variation built into us by our Creator, who loves variety. 🌈

References

1. Tomkins, J. P. Out of Babel—Not Africa. *Creation Science Update*. Posted on ICR.org February 16, 2015, accessed July 8, 2019.
2. Tomkins, J. P. 2018. Human Traits Not So Simple After All. *Acts & Facts*. 47 (2): 15.
3. Eiberg, H. et al. 2008. Blue eye color in humans may be caused by a perfectly associated founder mutation in a regulatory element located within the *HERC2* gene inhibiting *OCA2* expression. *Human Genetics*. 123 (2): 177-187.
4. Brace, S. et al. Population Replacement in Early Neolithic Britain. bioRxiv. Posted on biorxiv.org February 18, 2018, accessed July 8, 2019.
5. Harney, E. et al. 2018. Ancient DNA from Chalcolithic Israel reveals the role of population mixture in cultural transformation. *Nature Communications*. 9 (1): 3336.

Dr. Tomkins is Director of Life Sciences at the Institute for Creation Research and earned his Ph.D. in genetics from Clemson University.



Confronting a Clever Classroom Con



article highlights

- The evolutionary worldview is often pushed in colleges.
- If a Bible-believing student appears unable to completely defend a creationist position, a professor may use this to drive home the assumption that creation is irrational.
- This agenda is essentially a con job. Not only does evolution lack strong evidence, evolutionists rarely answer the difficult questions they demand of Christians.
- Genesis has the answers, and science supports the Bible's creation narrative.

Many Christian students in secular universities can relate to this scenario: An evolutionist college professor is doing his best to convince his class that biblical creation is absurd. To this end, he peppers students with challenging questions: How can you see distant starlight in a young universe? If there was a global flood, where did all the water come from? Where did it go?

One of the unspoken assumptions behind this barrage of questions is that you shouldn't hold a particular worldview unless you know the answers to all possible objections. If a student can't answer on the spot every objection the instructor throws out, it's seen as evidence that biblical creation is inherently irrational.

However, this is an intellectual con job. Knowing the answers to all possible questions would require perfect knowledge, which none of us possesses. If one follows this logic to its natural conclusion, it means that no one—evolutionist *or* creationist—is allowed to hold any kind of worldview! But how can you live your life without some kind of belief system? How can you function if you can't trust the information coming from your senses? And why even bother to do science or anything else if you think the world is an illusion?¹

Of course, evolutionist professors who challenge biblical creation don't hold themselves to the same standard they impose on their Christian students. They insist that living things somehow arose from non-living chemicals, yet they have no idea how this happened.^{2,3} Despite this enormous unanswered question at the very foundation of their belief system, you can be sure evolutionist academics don't consider their worldview to be irrational.

Unfortunately, many Christians also won't consider biblical creation unless they get all the questions answered ahead of time. This "wait and see" approach results from a lack of faith in God's Word.

Furthermore, although it may seem intellectual, the approach has a huge practical problem. Our limited knowledge makes it impossible for any of us to answer all questions up front.

Actually, creation scientists have excellent reasons for their "bias" in favor of biblical creation. There is zero scientific evidence that life can or ever did arise from non-living chemicals. Evolutionists acknowledge that living things appear designed, although they vehemently deny this is the case.⁴ The billions of fossils found in water-deposited rock layers all over the world are exactly what one would expect from the global Flood described in Genesis 6–9, as are the hundreds of traditions and stories of this catastrophic event in cultures throughout the world.^{5,6}

Biblical creation makes far better sense of the big picture of Earth history than does the evolutionary story. Creation scientists have already answered many questions and objections simply by taking the Bible's narrative at face value. Yes, questions remain, but we'll never correctly answer them by starting from a flawed evolutionary premise. Those who accept evolutionary ideas should quit leaning on their own understanding (Proverbs 3:5-6) and instead trust the words of the perfectly truthful, all-knowing, all-powerful Creator. Genesis really does have the answers. ✎

References

1. For a more detailed discussion of this topic, see Lisle, J. 2011. *The Ultimate Proof of Creation*. Green Forest, AR: Master Books.
2. Horgan, J. Pssst! Don't tell the creationists, but scientists don't have a clue how life began. *Scientific American*. Posted on blogs.scientificamerica.com February 28, 2011, accessed July 29, 2019.
3. Esson, A. \$5 Million Tech Prize Seeks Answer to Origin of Life. *Front Line Genomics*. Posted on frontlinegenomics.com March 1, 2018, accessed August 1, 2019.
4. Guliuzza, R. 2011. Evaluating Real vs. Apparent Design. *Acts & Facts*. 40 (1): 10-11.
5. Morris, J. 2012. *The Global Flood*. Dallas, TX: Institute for Creation Research.
6. Morris, J. 2014. Traditions of a Global Flood. *Acts & Facts*. 43 (11): 15.

Dr. Jake Hebert is Research Associate at the Institute for Creation Research and earned his Ph.D. in physics from the University of Texas at Dallas.

ICR Scientists Present Latest Research in Wisconsin

Scientists from the Institute for Creation Research presented their current research at the Creation Research Society's annual meeting in late July. About 150 people attended the two-day conference held at Concordia University in Mequon, Wisconsin.

Dr. Jake Hebert presented results from two *Creation Research Society Quarterly* papers he co-authored with ICR's Dr. Jim Johnson. He discussed possible scriptural clues regarding the structure of the universe that may have been overlooked by creationist researchers. These clues might enable us to draw inferences that could help nail down details of a biblical cosmology.

Dr. Hebert also addressed the common creation question "Where are the human Flood fossils?" Reports of "out of place" human fossils were common in the 1800s and early 1900s. Today, these are controversial, even among creationists. Some creationists argue that even if they're genuine, the fossils are likely the remains of people who lived *after* the Flood and are therefore of little interest to creation researchers. However, given the strong evidence—some compiled by ICR's Tim Clarey—that nearly all the world's sedimentary rocks date from the Flood year, many of these fossils could very well be the remains of people who perished during the Flood. Although caution is warranted, perhaps it's time for creation researchers to take a second look at them.

Dr. Brian Thomas presented his research on collagen in human and dinosaur bone. The SHG imaging technique he used requires no sample treatment and directly detects collagen. Modern, medieval, Ice Age, Cretaceous, and Jurassic bone samples were tested. Collagen was firmly detected in the first two categories and less firmly detected in the last three. Subject to verification using an independent technique, the identification of faint, microscopic traces of short-lived collagen in dinosaur bone challenges deep time.

Dr. Tim Clarey gave a presentation on Europe's stratigraphic record. His talk served as an update of ICR's Column Project. He noted that Europe shows many of the flooding patterns other continents have already revealed. The strata show minimal flooding occurred during deposition of the earliest megasequences. Later megasequences showed a steady increase in extent and volume as floodwaters rose



higher. Dr. Clarey further demonstrated that deposition of marine sediments like limestone continued well into the Upper Cenozoic across much of Europe and even completely surrounded Turkey. This shows that the Flood was not over until after deposition of the Tejas Megasequence, corresponding to the Cenozoic strata in the geologic column.

Frank Sherwin presented non-evolutionary conjectures regarding the transition of some animals to modern parasitic creatures. The question was asked, "Could post-Fall parasites be slight genetic variations of non-parasitic pre-Fall ancestors?" Prior to the Fall and subsequent Curse, God saw that everything was "good" or "very good" (Genesis 1). Animals that later became parasitic may have first beneficially associated (mutualism or commensalism) with humans and animals. Others might have been free-living and not associated with other creatures. Clear answers are elusive regarding the parasitology part of the "predator/prey problem" in creation science.

Dr. Randy Guliuzza continued development of the continuous environmental tracking (CET) model, ICR's engineering-based, organism-focused framework of biological adaptation. He presented additional evidence that organisms purposefully track environmental changes to deploy appropriate adaptive responses using the same engineering principles that underlie human-engineered tracking systems. CET expects a tight correlation between the elements in human-designed systems with those in biological systems that perform similar functions.

Dr. Guliuzza discussed examples of complicated built-in "anticipatory systems" creatures use to forecast future environmental conditions in their lifetime or their offspring's. These innate logic-based systems give organisms foresight—both conscious and unconscious—of how they should preemptively self-adjust to predicted conditions. This implies that some biological adaptations are not purely reactive. Little is known about how biological anticipatory systems work, and Dr. Guliuzza explained how the CET framework could guide research by predicting system elements that might be discovered. ✍

Dr. Clarey is Research Associate at the Institute for Creation Research and earned his Ph.D. in geology from Western Michigan University.

article highlights

- Institute of Creation Research scientists attended the recent Creation Research Society annual meeting.
- ICR's Jake Hebert, Brian Thomas, Tim Clarey, Frank Sherwin, and Randy Guliuzza presented their latest research.

The ICR Discovery Center Opens to the Public!

The big opening day for the ICR Discovery Center for Science & Earth History is scheduled for September 2, 2019. We've been scrambling to finish the exhibits, get final clearance by the fire marshal, and clean every nook and cranny. Construction is dusty business!

For over two years we've updated *Acts & Facts* readers on the building progress. Do you remember where we started? Our initial updates included photos of Dallas' clay soil, our empty former warehouse, and countless yards of concrete being poured into piers and forms. To build a lasting place of ministry, we needed to start with a firm foundation.

Over many months, we watched construction experts working in the cold and heat, and admired drone shots of the property as the project slowly came together. Then we saw the steel beams go up, the planetarium's glass enclosure put in place, and the walls and floors installed.

Our most recent updates included portions of the exhibits under construction. Now we can finally reveal a few of the finished pieces! The completion of the Discovery Center has been the initial goal of our labors, but our greatest aim is to see you and your family here. Check out our new website ICRdiscoverycenter.org for tickets and details on planning your visit.

.....

We still need funds to put the final touches on this incredible ministry outreach. Together, let's point people to the truth of our Creator, the Lord Jesus Christ. Visit ICR.org/DiscoveryCenter for more information and find out how you can partner with us in prayer and help us finish strong!



Portraits of Isaac Newton and Robert Boyle—watch the founders of science come to life as you enter the exhibit hall.



Tulsa muralist Rachel Wimpey places the finishing touches on her exquisite Six Days of Creation paintings.



The growls and roars of the great cats, T. rex, woolly mammoth, and other animatronic creatures echo throughout the center



The Ice Age Theater as it nears completion for the crowds



The sphere in the universe room will display God's glorious cosmos

Evolutionism Poisons Christian Worship

RANDY J. GULIUZZA, P.E., M.D.

article highlights

- Worship is a key function of the church.
- Our worship of God is directly tied to His role as Creator.
- Evolutionism transfers worship of the Creator God to nature.

At Moody Bible Institute, I was taught the church's mission could be organized into three basic functions: worship, evangelism, and the edification (building up) of believers. If a church undertook an activity that couldn't reasonably be plugged into one of those functions, then that activity was a distraction from its mission. Have you ever considered the effect evolution has on our worship of God?

As an illustration, let's say you've just met Barbara, a young woman who accepted Jesus as her Savior two years ago. Since then, she's found great fulfillment through her life in Christ and ministry to others. She especially loves worshipping her great God with fellow believers. But three months ago she began dating David, a Christian man who attends her church. He's smart and well-read, but he has ideas that are new to her.

For one thing, David believes many Christians have "outdated" doctrines that keep people from becoming believers—doctrines such as a literal Adam and Eve. He asserts that the revelations of modern science conclusively demonstrate humanity evolved through natural processes. Belief in a Creator who spoke the world into existence in six days is not only pointless, it actually hinders the gospel.

David's convincing convictions raise questions in Barbara's mind. Many of the Bible's truths that once gave her comfort are now sources of doubt. The great and powerful God she felt was worthy of her adoration, praise, and gratitude has somehow been diminished. The next Sunday at church, she looks at the people around her. How

can she join them in worship if the God they believe in isn't based on reality? Quietly, she makes her way to the exit and leaves.

If you and Barbara had a chance to talk, what would you say to her about the question of origins and how it relates to her ability to honor and glorify God? Let's consider the way the doctrine of biblical creation and the historical challenge from natural evolutionism affect our thoughts about the function of worship.

The Doctrine of God Is Based on Creation

The link of the creation event to the reality of a Creator God is the supreme reason why the Bible begins with "In the beginning God created the heavens and the earth" (Genesis 1:1). The very name "God" designates the status of the One who surpasses everything. We conceive of the highest being by reckoning that He is the ultimate source, or cause, of everything. He has always existed, and all things owe their existence to Him. These thoughts relate to God's essence and the transcendent attributes He doesn't share with any created thing. Scripture continuously affirms this:

For the LORD is great and greatly to be praised; He is to be feared above all gods. For all the gods of the peoples are idols, but the LORD made the heavens. Honor and majesty are before Him; strength and beauty are in His sanctuary....Oh, worship the LORD in the beauty of holiness! Tremble before Him, all the earth. (Psalm 96:4-6, 9)

"You are worthy, O Lord, to receive glory and honor and power; for You created all things, and by Your will they exist and were created." (Revelation 4:11)

Then I saw another angel flying in the midst of heaven, having the everlasting gospel to preach to those who dwell on the

earth...saying with a loud voice, "Fear God and give glory to Him, for the hour of His judgment has come; and worship Him who made heaven and earth, the sea and springs of water." (Revelation 14:6-7)

The creation of the ultimate "effect"—the universe itself—requires the ultimate cause: the reality of God. Worship acknowledges the rightful authority and majesty of God. The first use of the word "worship" is in the insightful narrative of Abraham and Isaac on Mount Moriah (Genesis 22). This account illustrates the appropriate acts of submission and sacrifice.

Christians have a fuller revelation. We can practice worship in the light of the love and perfection of the Lord Jesus Christ. These Christian authors express how a special relationship is now possible:

Worship is practiced by paying religious reverence and homage to God....Pure worship expresses adoration and veneration without making petition, and predicates self-renunciation and sacrificial giving to God. Strictly speaking, worship is the occupation of the soul with God Himself and does not include prayer for needs and thanksgiving for blessings.¹

Yet, conclusions drawn from evolution undermine biblical doctrines supporting the church's function of worship.

Worship Diminished, Distorted, and Diverted

Just as Barbara sensed, if an evolutionary process is substituted as the creator of life and its diversity, then the person and attributes of the Creator God are either denied outright (as atheistic evolutionists do) or diminished in glory (as theistic evolutionary frameworks do). William Provine, the late Cornell University evolutionary authority, explains:

As Jacques Monod, E.O. Wilson, and many other biologists have pointed out, modern evolutionary biology has shattered the hope that some kind of designing or purposing force guided human evolution and established the basis for moral rules. Instead, biology leads to a wholly mechanistic view of life....There are no gods and no designing forces...The frequently made assertion that modern biology and the assumptions of the Judeo-Christian tradition are fully compatible is false.²

Sydney Ahlstrom, who taught religious history at Yale University, recounts why the acceptance of evolutionism within many churches led rapidly to worship being distorted. Worship shifted from adoring the Creator to emphasizing *earth-centered* social reforms like the social gospel or social justice. Influential writers "insisted on an entirely 'secular' interpretation of the Gospel, or thoroughly 'demythologized' the biblical message" in the mid-20th century.³ Ahlstrom adds:

Yet, the question returns, Why now? Why so suddenly?...Radical theology is fundamentally an adjustment of religious thought to an ordered understanding of the natural world....Until the nineteenth century, the idea of providential design

had easily turned man's knowledge of the animate, as well as the inanimate world to the uses of natural theology [a Creator God]. With the rise of evolutionary theory, however, and especially after Darwin, this grand structure of apologetical theory began to crumble before the incoming tide of naturalism.³

When people fail to give credit for the creation to the Creator, then they divert worship of the Creator to worship and serve the creation (Romans 1:25).⁴ As early as 1905, the content in a college course on evolution stated:

Matter is the origin of all that exists: all natural and mental forces are inherent in it. Nature, the all-engendering and all-devouring, is its own beginning and end, its birth and death. She produces man by her own power and takes him again.⁵

This thinking grew until it even reached a publication that popularized science for lay audiences, in which a Georgetown University professor elevated a new "ecothology" that was "an approach to religion that starts with the premise that the *Universe is God*."⁶

Kenneth Woodward, longtime religion editor of *Newsweek*, described the first real formalization of the transfer of worship to nature at a conference by the World Council of Churches consisting of a "new breed of eco-theologians" that included Father Thomas Berry. Woodward wrote that "if religious leaders want to know what God thinks about nature, [Berry] says, books like the Bible...are the wrong places to look."⁷ Rather:

The evolving cosmos is teacher, its destiny is our destiny, its values our values....Moreover, unlike the Book of Genesis, which is designed to desacralize nature, Berry's new cosmology resacralizes the natural world and imposes certain values on its human offspring....Among some enthusiasts, the ecology movement itself has become a kind of religion, in which cosmic piety replaces worship of a transcendent God.⁷

The question of origins clearly impacts not only the capacity to worship but also who (or what) is worshiped. The effect of evolutionism on this key function of the church is primarily and profoundly negative. Next month's article will examine what it does in the area of evangelism. ✎

References

1. Pfeiffer, C. F., H. F. Vos, and J. Rea, eds. 1975. *The Wycliffe Bible Encyclopedia*. Chicago: Moody Press, 1823.
2. Provine, W. B. 1982. Influence of Darwin's Ideas on the Study of Evolution. *BioScience*. 32 (6): 501-506.
3. Ahlstrom, S. E. 1977. The Radical Turn in Theology and Ethics: Why It Occurred in the 1960's. In *Religion in American History: Interpretive Essays*. J. M. Mulder and J. F. Wilson, eds. Englewood Cliffs, NJ: Prentice-Hall, 449-450.
4. Guliuzza, R. 2017. Engineered Adaptability: Engineering Principles Point to God's Workmanship. *Acts & Facts*. 46 (6): 16-19. See also Guliuzza, R. 2011. Darwin's Sacred Imposter: Natural Selection's Idolatrous Trap. *Acts & Facts*. 40 (11): 12-15.
5. Townsend, Luther. 1905. *Collapse of Evolution*. New York: Loizeaux Brothers, 6.
6. Long, M. 1981. Visions of a New Faith. *Science Digest*. November: 36-42. Emphasis in original.
7. Woodward, K. A. New Story of Creation. *Newsweek*, June 5, 1989, 68-71.

Dr. Guliuzza is ICR's National Representative. He earned his M.D. from the University of Minnesota, his Master of Public Health from Harvard University, and served in the U.S. Air Force as 28th Bomb Wing Flight Surgeon and Chief of Aerospace Medicine. Dr. Guliuzza is also a registered Professional Engineer.



Q: Does Palo Duro Canyon Show Deep Time?



A Some friends and I recently hiked into Texas' Palo Duro Canyon, where sedimentary rock layers span the horizon. Eighteenth-century naturalists thought rock layers represented vast ages, a tradition most scientists still cling to. We looked for evidence of deep time in the rocks but instead found three mysteries that Noah's recent Flood explains more readily than long ages.

These three mysteries fit the initials of Palo Duro Canyon. The first letter, P, stands for *planar*. The upper surface of each major sedimentary rock unit looks as though some immense giant smoothed it flat with a colossal carpenter's plane.

Today's rivers carve V-shaped channels into the subsurface. When flooding creeks or rivers overflow, they don't leave sediments across wide areas but only along or near their river banks. In contrast, sediments lie flat for *miles* across Palo Duro Canyon and beyond. We saw no trace of river channels in the layers. Water blanketed whole states to deposit the flat, planar beds of sediment.¹

D stands for *disconformity*. This represents a supposed time gap between two parallel layers even when there's no physical evidence of elapsed time between them. Palo Duro Canyon layers show two enormous disconformities.

The lowest canyon layer, the Quartermaster Formation, is a red sandstone

with a secular age assignment of some 250 million years.² The layer right above is a rust-colored Triassic System shale named the Tecovas Formation. It lies flat atop the Quartermaster even though naturalistic geologists claim that Tecovas formed a full 40 million years later. What would happen to the Quartermaster layer in 40 million years?

First, if we extend today's slow and gradual worldwide erosion rates into the past, then the world's continents would have eroded into the sea in that amount of time.³ Why do we still have continents with canyons instead of a water world? Second, even super-slow erosion rates in the past would carve valleys, rills, and ravines into the Quartermaster. The flat-topped rock shows no such chevron-shaped features.

Neither do the Trujillo and Ogallala Formations—the next-highest in the canyon. The supposedly 10-million-year-old Ogallala, the caprock that forms the canyon's upper rim, stretches from Texas all the way up to South Dakota.⁴ My daughter Abby and I could span our hands across this assumed 200-million-year gap. A total lack of ruts or ravines refutes this missing time. It's as though the Ogallala landed on the Trujillo within years or even days.

The third mystery—the C—concerns *cross-beds*. This describes grains deposited at an angle to the horizontal. Cross-beds form at small scales today in river channels, offshore seafloor sand dunes, desert

article highlights

- Texas' Palo Duro Canyon contains rock layers claimed to be millions of years old, but the canyon's initials (PDC) connect to three geological clues that they were deposited only thousands of years ago.
- P (planar): The layers appear flat and level for miles on end, and only a massive amount of water could've caused this.
- D (disconformity): There's a supposed time gap between rock layers, but the rocks show no evidence for it.
- C (cross-beds): The canyon's cross-beds show vast, fast water flows.

sand dunes, and in laboratory flume studies. Sometimes cross-bedding is faint, and other times it shows bold colors. All cross-beds indicate fast-flowing sediment, with taller cross-beds indicating deeper waters. And any cross-beds with an angle of less than 25°, like those in the canyon, indicate water formation, not wind formation.

Noah's Flood solves all three Palo Duro Canyon mysteries. The broad, planar layers surely formed from widespread waters rather than river channels or sloping seaside surf zones.⁵ By erasing imaginary millions of years, the disconformities disappear, with no trace of erosion between the layers' flat contacts. Last, cross-beds show that fast-flowing waters once blanketed the whole region, which is what we would expect from a world-covering flood. The Flood really happened, just like the Lord Jesus taught.⁶ ✨

References

1. Morris, J. 2012. The St. Peter Sandstone. *Acts & Facts*. 41 (1): 14.
2. Guy, D. F., ed. 2001. *The Story of Palo Duro Canyon*. Lubbock, TX: Texas Tech University Press.
3. Portenga, E. W. and P. R. Bierman. 2011. Understanding Earth's eroding surface with ¹⁰Be. *GSA Today*. 21 (8): 4-10.
4. Clarey, T. 2018. Palo Duro Canyon Rocks Showcase Genesis Flood. *Acts & Facts*. 47 (7): 10.
5. Thomas, B. and T. Clarey. 2018. Dinosaur Tracks Back Noah's Flood. *Acts & Facts*. 47 (2): 11-14.
6. Matthew 24:38.

Dr. Thomas is Research Associate at the Institute for Creation Research and earned his Ph.D. in paleochemistry from the University of Liverpool.



Deep Wonders of Slapping Sharks and Snapping Shrimps

Those who go down to the sea in ships, who do business on great waters, they see the works of the LORD, and His wonders in the deep.

— PSALM 107:23-24 —

The super-fast and powerful movements of sharks and shrimps are among “the works of the LORD” and “His wonders in the deep.” Consider how their body parts and physiologies providentially empower sharks to slap and shrimps to snap.

Slap-Happy Sharks

The pelagic thresher shark (*Alopias pelagicus*) forcefully slaps his tail underwater to catch its prey. An extra-long tail facilitates this, according to video-camera documentation.

Thresher sharks employed tail-slaps to debilitate [by stunning or killing] sardines at all times of day. Hunting events comprised preparation [including “wind-up” for a tail-slap], strike, wind-down recovery and prey item collection phases, which occurred sequentially.... Tail-slaps occurred with such force that they may have caused dissolved gas to diffuse out of the water column forming bubbles. Thresher sharks were able to consume more than one sardine at a time, suggesting that tail-slapping is an effective foraging strategy for hunting schooling [fish] prey.¹

How did the thresher shark get its extra-long prey-slapping tail? Bible-believing

Christians recognize that God designed the shark’s genetic blueprint, growth, and development, including its tail-slapping capacities that utilize the physiology of its pectoral fins and its extra-long tail.

Evolutionists, however, give credit to a pantheistic process that magically “gives” body parts to animals as they need them to survive. Consider how Oliver Simon, leader of the Thresher Shark Research and Conservation Project, lauds evolution as the shark’s helpful benefactor. Regarding the shark’s tail and tail-slapping ability, he says, “Evolution doesn’t provide you with something like that unless you intend to use it that way.”²

Thus, Oliver Simon assumes that the mystical-magical process of evolution can read animal minds to “see” if an extra body part or two would be used for survival if “provided” by evolution.

Snap-Happy Shrimps

The pistol shrimp (a.k.a. snapping shrimp) is famous for its powerful and noisy underwater snapping that forcefully stuns or kills prey and scares off predators.

The snapping shrimp (*Alpheus heterochaelis*) produces a loud snapping sound [>210 decibels, louder than a gunshot] by an extremely rapid closure of its snapper claw....During the rapid snapper claw closure, a high-velocity water jet is emitted from the claw with a speed exceeding cavitation conditions [with front-end cavitation bubble expansion at 32 m/s, with bubble gas temperature briefly rising to ~5,000°F]. Hydrophone measurements

article highlights

- Wonders of God’s great design are found in His oceans.
- Thresher sharks and pistol shrimps are two powerful examples of these wonders.

in conjunction with time-controlled high-speed imaging of the claw closure demonstrate that the sound is emitted at the cavitation bubble collapse and not on claw closure.³

The undersea crackling sounds of snapping shrimp populations were used to camouflage the undersea noise of World War II submarines hiding in coral reefs.⁴ Thus, the snapping shrimp is famous for both its noisy “bark” and its powerful (cavitation-bubble-striking) “bite.”

The psalmist reminds us that the “works of the LORD,” including “wonders in the deep” like sharks and shrimps, are available to see and appreciate—for those with open eyes. Yet evolutionists, with no empirical or forensic evidence in support, imagine that snapping shrimps were “given” their amazing powers from a mystical-magical-mythical process called natural selection, because “nature” will “provide you with something” if you “intend” to employ that new physiological something for survival.²

But no mix of materialistic accidents can “select” (much less “provide”) helpful body parts for a snap-happy shrimp or a slap-happy shark. Rather, the great God who made us (and who offers us redemption) is the Architect and Bioengineer of shrimps and sharks, as well as all of His other works and wonders. ✎

References

1. Oliver, S. P. et al. 2013. Thresher Sharks Use Tail-Slaps as a Hunting Strategy. *PLOS ONE*. 8 (7): e67380.
2. Poppick, L. Shocking! Thresher Shark Stuns Prey with Tail Slap. *LiveScience*. Posted on livescience.com July 10, 2013.
3. Versluis, M. et al. 2000. How Snapping Shrimp Snap: Through Cavitating Bubbles. *Science*. 289 (5487): 2114. Some of the bracketed material was taken from reference 4.
4. Aspinal, R. Shrimps and Sonar—How Alpheids Helped Win the War. Posted on Reefs.com May 17, 2016.

Dr. Johnson is Associate Professor of Apologetics and Chief Academic Officer at the Institute for Creation Research.



Small Gifts Add Up

A Google search on *charitable giving* will produce countless websites. It's astonishing how much information exists about organizations dedicated to worthy causes. It seems that most are devoted to big-money donations. I suppose there's wisdom in that—big money makes it possible for larger programs to reach more people. But is bigger always better?

The danger in this approach is that larger programs require bigger budgets, and bigger budgets demand more money to sustain those larger programs, which... well, you get the picture. For Christian organizations, the resulting cycle can become self-destructive because it shifts the ministry focus toward meeting budgetary goals rather than concentrating on the ministry the Lord called us to. ICR seeks to remain true to His Word and strives to exercise careful

stewardship of what has been given to us so that only God is glorified in the end.

Please don't misunderstand me—we welcome large donations. Large gifts were needed to build the ICR Discovery Center for Science & Earth History, and the Lord provided! Yet, we know huge gifts aren't possible for most people. And gifts of any size can be unbiblical if given in the wrong spirit. Consider the words of our Creator as recorded in Mark 12:41-44:

Now Jesus sat opposite the treasury and saw how the people put money into the treasury. And many who were rich put in much. Then one poor widow came and threw in two mites, which make a quadrans. So He called His disciples to Himself and said to them, "Assuredly, I say to you that this poor widow has put in more than all those who have given to the treasury; for they all put in out of their abundance, but she out of her poverty put in all that she had, her whole livelihood."

Christ wasn't impressed with the large amounts given by the rich because they "put in out of their abundance" and had plenty left over to maintain their lavish lifestyles. Rather, Christ was so impressed by the widow's mite that He called His disciples over to point this truth out to them: God measures a gift not by its size but by the motive with which it is given and the amount left ungiven. The widow's two mites were more valuable than all the other gifts because, in her poverty, she gave "all that she had, her whole livelihood."

article highlights

- ICR has been blessed by faithful givers for almost 50 years.
- Large gifts are welcome—we needed them to build the ICR Discovery Center—but we also cherish small gifts.
- If you haven't supported ICR, please prayerfully consider a gift today.

In this age of bigger is better, perhaps some are reluctant to give "too small" a gift, believing such amounts can't do much good for the Lord's work. Yet, the widow's example clearly shows God isn't interested in size but in motive and proportion. Consider the following: For those who are currently receiving our material but haven't yet partnered with us, please know if only 10% gave \$10 per month, the Lord would use you to increase ICR's ministry budget by over one million dollars per year. And if 100% were able to give just \$5 per month, our resources would more than double. Many "mites" add up and can become mighty for our Lord's work!

For almost 50 years, ICR's ministry has been supported by those who share our passion to proclaim the wonders of God's creation. We carefully apply the resources the Lord provides through His people so that many can be brought to a saving knowledge of Him. If you haven't already, won't you prayerfully consider joining us? Your help will make a difference for the cause of Christ. ✉

Mr. Morris is Director of Operations at the Institute for Creation Research.



PRAYERFULLY
CONSIDER
SUPPORTING
ICR

GALATIANS 6:9-10

Online
Donations

Stocks and
Securities

IRA
Gifts

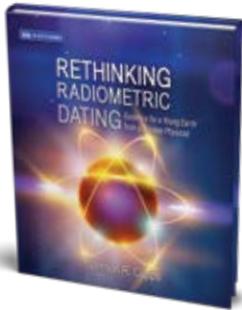
Matching
Gift Programs

CFC (Federal/
Military Workers)

Gift Planning
• Charitable
Gift Annuities
• Wills and
Trusts

Visit ICR.org/give and explore how you can support the vital work of ICR ministries. Or contact us at Stewardship@ICR.org or **800.337.0375** for personal assistance.

ICR is a recognized 501(c)(3) nonprofit ministry, and all gifts are tax-deductible to the fullest extent allowed by law.



When I was in the Air Force, I worked as a nuclear chemist. For the first year of this assignment we studied nuclear chemistry/physics. **Dr. Cupps' book [Rethinking Radiometric Dating] is an excellent text on the subject of radiometric dating.** There are so many pitfalls in this process, and he has done a wonderful job of pointing them out and explaining them. The book is accurate, well-written, and very informative. I find it astounding that the errors in radioactive dating persist, and I encourage Dr. Cupps to continue in his pursuit of real science and the Bible.

— B. S.



I've made this comment before but it bears repeating as encouragement. I didn't come to Christ until late in life while I was totally unchurched and entrenched in

evolution. **I put a young earth and six-day creation on the back burner until it was time for the Spirit to open my eyes to the lies I'd believed.** And the truth will set you free. If you don't completely believe Genesis 1, then don't bother with the other 65 books; and pray for wisdom—it will be freely given.

— S. S.



Thank you for adhering to the only reliable source of all knowledge of our perfect God. His inherent Word is infallible. We are blessed, enriched, and enlightened by His Word—sweeter than honey and the honeycomb. Thank you for your encouraging posts.

— K. L.



I didn't get saved until I was 37 years old. I wasn't raised in a Christian family. There is overwhelming evidence in my mind that the Bible is true.

Challenge the naysayers to give evidence for their assertions, and don't let them shift the burden of proof to you for verifying or disproving their statements. They have these little games they play, but lovingly and respectfully make them give evidence for their naysaying.

We have all the scientific and historical evidence on our side to show that the Bible is true. That's how the Lord grabbed hold of me. I was presented with evidence that I could not refute!

— P. D.



A young creationist cutting her teeth on the May 2019 issue of Acts & Facts during a road trip. Her usual reading includes ICR's Little Creation Books.

We have the first two Little Creation Books and are planning to get the next two. I'm so grateful for these resources. **I love to open those board books and read "God created..."** What a beautiful impression on her young heart!

— L. J.



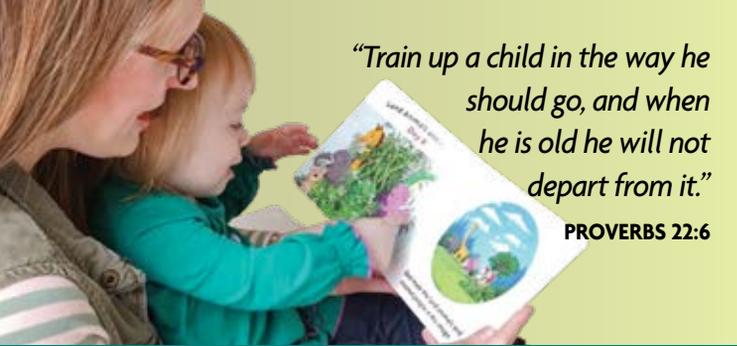
My interest in your organization began when I heard [an ICR scientist] give a talk on the majesty of the universe at Calvary Chapel Chino Hill in California. **It left me slack-jawed.** Shortly afterward, I purchased *The Henry M. Morris Study Bible*, and it was all over for me. Absolutely love it. It so resonates with my heart, soul, and spirit. The insights are breathtaking, the organization faultless, and the implication for our daily walk with the Lord inspiring.

— J. R.

Dr. Brian Thomas received his Ph.D. in paleobiochemistry from the University of Liverpool.



Have a comment? Email us at Editor@ICR.org or write to Editor, P. O. Box 59029, Dallas, Texas 75229. Note: Unfortunately, ICR is not able to respond to all correspondence.



“Train up a child in the way he should go, and when he is old he will not depart from it.”

PROVERBS 22:6

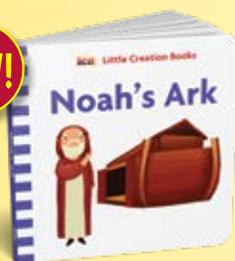


P. O. Box 59029, Dallas, TX 75229
ICR.org

Little Creation Books!

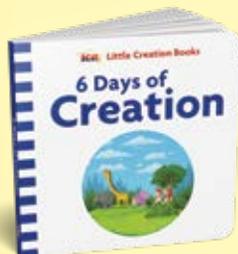
The world can be a confusing place. We help our kids separate fact from fiction by laying a solid foundation of truth during their earliest years. ICR produced the Little Creation Books series to help you teach creation basics to your preschooler. Bit by bit, they'll learn who God is, what He has done, and why it matters. These books use colorful pictures and simple words to introduce our youngest children to their very big Creator.

NEW!



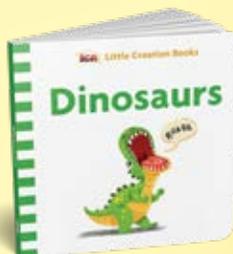
Noah's Ark
\$5.99 • BNA

In *Noah's Ark*, God uses a giant boat and a faithful man to help a group of people and animals escape the worldwide Flood. Just like the Ark saved them, Jesus saves us.



6 Days of Creation
\$5.99 • B6DOC

This little book introduces our youngest children to God's very good creation.



Dinosaurs
\$5.99 • BD

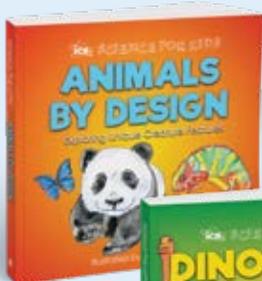
In this book, children will discover dinosaurs at creation, on the Ark, and in the ground.



Fish Have Always Been Fish
\$5.99 • BFHABF

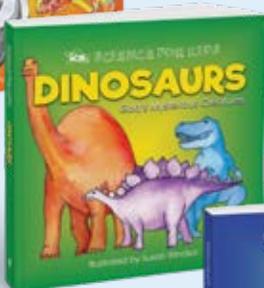
This colorful book counters evolutionary tales with the true history of creatures in our world.

SCIENCE FOR KIDS!



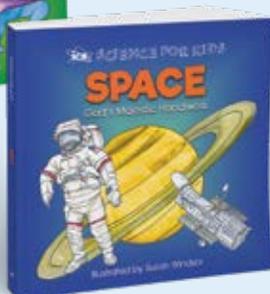
ANIMALS BY DESIGN
Exploring Unique Creature Features

\$8.99
BABDEUC



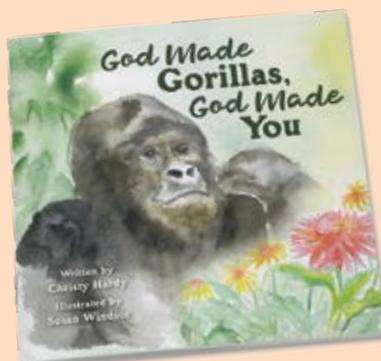
DINOSAURS
God's Mysterious Creatures

\$8.99
BDGMC



SPACE
God's Majestic Handiwork

\$8.99
BSGMH



GOD MADE GORILLAS, GOD MADE YOU

\$7.99
BGMGGMY



BIG PLANS FOR HENRY

\$8.99
BBPFH