



All that Jesus has made, all that Jesus has done, should bring awe and wonder to everyone.



The World and All That Was Made

\$16.99 • BTWAATWM • Hardcover • Also available in digital format

Explore the wonders of the Lord's handiwork with your child in *The World and All That Was Made*. Take a journey together through creation with this delightful full-color book. With its vivid illustrations and memorable poetry, it's bound to become a family favorite.



God Created Monkeys

\$7.99 • BGCM

"In the beginning God created" (Genesis 1:1). God created land animals on Day 6 of the creation week. That includes monkeys! These frisky furry creatures have fascinated people for thousands of years. But what makes a monkey, well....a monkey?

In *God Created Monkeys*, you'll find answers to your questions, colorful pictures, crazy hairstyles, and cool fossil facts! Amazing monkeys point to the power and creativity of our Creator and Savior, the Lord Jesus Christ.





ACTS & FACTS

VOLUME 51 NUMBER 3

MAY | JUNE 2022

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.

We cannot accept subscription requests
on behalf of another person.

DESIGNER

Dennis Davidson

[Jesus Christ] is the image of the invisible God, the firstborn over all creation. For by Him all things were created that are in heaven and that are on earth, visible and invisible, whether thrones or dominions or principalities or powers. All things were created through Him and for Him. And He is before all things, and in Him all things consist. And He is the head of the body, the church, who is the beginning, the firstborn from the dead, that in all things He may have the preeminence. For it pleased the Father that in Him all the fullness should dwell, and by Him to reconcile all things to Himself, by Him, whether things on earth or things in heaven, having made peace through the blood of His cross.

(Colossians 1:15-20)

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

Copyright © 2022
Institute for Creation Research

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







Front cover: Midway Geyser Basin, Yellowstone National Park Image credit: BigStock











feature

4 Lifting the Curtain on Scientific Elitism
RANDY J. GULIUZZA, P.E., M.D.

research

7 Flood Explains Mysterious Iceland Plant Fossils

TIM CLAREY, PH.D.

park series

10 Yellowstone National Park, Part 1: A Flood Supervolcano

TIM CLAREY, PH.D., AND BRIAN THOMAS, PH.D.

impact

14 The Five Rules of Flood Paleontology

back to genesis

17 Big Bacterium—a Missing Link?
FRANK SHERWIN, D.Sc. (HON.)

18 Speculation, Invention, and the Invisible Hand

MICHAEL STAMP

19 ICR's School of Biblical Apologetics

apologetics

20 Altruistic Birds Embarrass Evolutionists

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

stewardship

21 Caring for the People in Your Life

creation kids

23 Grand Canyon

CHRISTY HARDY AND SUSAN WINDSOR

Lifting the Curtain on Scientific Elitism

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

he curtain has been lifted" is an idiom that aptly portrays when a hidden truth is revealed. On the public side of a curtain called "biological science," the perception of scientists for decades was that of rational, ideologically neutral researchers who were admirably dead to ambition and were driven to discover biological truths beneficial to all mankind. People trusted them.

Then came the COVID-19 pandemic, and the curtain was lifted. Many scientists were revealed to be biased, political ideologues in white lab coats given over to group think. They hypocritically admonished others to "follow the science" while they selectively ignored scientific data contrary to their agenda.

Perhaps for the first time, people outside the academic arena could see how scientists consider themselves so much smarter than "common" people that they are justified in decreeing to others—for their own good, of course—what to think and how to behave. The pandemic exposed this hidden side. Scientists had been able to get away with abusing the public trust precisely because people were kept naïve about how scientists manipulate behavior and, more ominously, thought. The descriptive label given to scientists who practice elitist-typical behaviors is scientific elites. What's important for us to focus on is not the label but the behaviors.

Creationists have cautioned for a long time against trusting what scientific elites pronounce about Darwinian evolution. Why? Because one disturbing elitist behavior is the one-sided presentation of information—the pro-evolutionary side. Adherents rationalize this behavior because they're convinced their position is so obviously correct that something must be wrong with dissenters. Thus, it's for everyone's own good to be force-fed only the "correct" informational diet. The companion elitist behavior is intolerance of differing beliefs. Many

scientific elites embrace a worldview that's as coercive as any militant religion that resorts to intimidation to ensure total conformity.

Conversely, one would be hard-pressed to find creationist literature that wants to exclude people from learning about evolution. The reason these approaches to the dignity and autonomy of humans are different is that creationists and evolutionists begin with different worldviews that are founded on diametrically opposing beliefs about creation. One side sees the first humans as created by, and bearing the image of, a loving heavenly Father. In Darwin's death-driven selectionism, "survival of the fittest" is the creative substitute god shaping all life.

Both worldviews greatly influence what people believe and how they behave toward each other. Creationists celebrate intellectual freedom. But scientific elites feel justified to habitually manipulate people—again, for their own good—by controlling the content of textbooks, educational programs, and, say, the Smithsonian National Museum of Natural History.

Increasing Skepticism of Scientific Elites

Certainly, not everyone previously embraced the virtuous, romantic notion of bias-free biological scientists. But what we've discovered behind the curtain has led to a rapid change in perception. In the United States, medical scientists are almost revered when compared to other professional groups (e.g., journalists, business leaders, elected officials). Yet, prestige for them has markedly declined during this last year of the pandemic.

A recent Pew Research Center survey found that "overall, 29% of U.S. adults say they have a great deal of confidence in medical scien-

article highlights

- The COVID-19 pandemic has shed light on the fact that scientists can be biased and elitist.
- Creationists have long cautioned that scientific elites act in an authoritarian and manipulative manner to suppress dissenting views.
- The pandemic has led more people to mistrust scientists, providing creationists with an educational opportunity.
- Creationists must keep warning people against trusting what scientific elites claim about evolution and origins.

tists to act in the best interests of the public, down from 40% who said this in November 2020." Remarkably, 22% surveyed reported they have "not too much or no confidence at all," which was slightly more than a 50% increase. The COVID-19 pandemic provided a path other than the origins dispute for people to see the unappealing behavior of biological scientists.

Since scientists do investigations, one would expect a fair search by them for all potential causes for this hit to their status. A recent post titled "How to Confront Anti-Science Sentiment" explored some reasons for scientists' loss of respect and the increasing resistance to their exercise of power. This discussion candidly revealed what many established scientists commonly think about nonscientists. It surveyed several causes for the surge in people's "bashing of expertise."

But judging by its conspicuous absence, one cause was ruled out immediately—that scientific elites' own authoritarian behavior is what's alienating people. "How to Confront Anti-Science Sentiment" identified the problem as "a number of individuals, especially an increasingly vocal cadre of social media users, [who] don't always trust physicians and scientists. Rather, they view them as elites and members of the establishment."²

Typically, when *non*-elites know they're being perceived negatively, they feel that an initial look in the mirror is at least warranted. But scientific elites reflexively look outward. In what seems like a projection of their motives to others, they identify the resistance to their controlling behavior as due to a "political agenda."

How to Alienate the Public? Disrespect and Censorship

What do some scientific elites truly think of nonscientific people? They agree with "Voltaire [who] observed, 'Common sense is not so common." Thus, they think ordinary people are easily duped by "certain pundits and politicians" pushing "pseudoscience" who dismiss "mainstream science and medicine." It's inconceivable to these elites that the ideas or views contrary to theirs that, they admit, are "currently succeeding in the marketplace of ideas" could be due to the *scientific merit* of those views. Rather, to elites it "demonstrates the human proclivity to reject the scientific method in favor of unestablished, or even disreputable, goods and services." The takehome message here is that scientific elites don't respect the reasoning

abilities of ordinary people.

Yet, no evidence was offered in "How to Confront Anti-Science Sentiment" confirming that a "human proclivity" toward self-befuddlement even exists. Given that this proclivity is central to the beliefs of scientific elites about nonscientific people, one would expect them to offer some verification. A problem can be identified here. Scientific elites may substitute their unsubstantiated stories for scientific evidence to support their claims. Then, based solely on their scientific authority, they expect—but during the pandemic demanded—non-scientists to accept their claims and obey their mandates.

But when people ask for scientific evidence, they like to *get* scientific evidence. Perhaps, substituting stories for evidence could explain the increase in people who have "not too much or no confidence at all" in these biological scientists.

How else has the behavior of biological scientists demonstrated their lack of respect for the public that, in turn, might have prompted the public's diminishing respect for them during the pandemic? There was also the incongruity that those who claimed to "speak for science" were dictating different—and sometimes contradictory—weekly mandates. Then there was their incessant virtue-signaling in public about "following protocols" but hypocritically not doing so in private.

Drawing from their playbook against creationists, "How to Confront Anti-Science Sentiment" also sought to marginalize dissenting scientists by characterizing them as "anti-science." The intent is to suppress alternate voices by hurting their credibility so others will disregard their message.

The name-calling doesn't end there. Another epithet depicts others with differing positions as deniers of, presumably, the truth. Additionally, the research of qualified scientists who oppose the "consensus" is derisively called pseudoscience, disinformation, or propaganda. Again, the intent is to suppress their message. Yet, ordinary people may view with suspicion the censorship of conflicting views, whether it's done by government, news organizations, or on social media.

Do Scientific Elites Act for Their Benefit or Yours?

The trick for scientific elites is to maintain access to public funds while distrusting those who supply them. In a clunky attempt to say that unscientific people lack judgment but not fault them for it, "How to Confront Anti-Science Sentiment" makes an excuse that's really a condescending insult.

Many people have not had the privilege of learning how to critically evaluate this plethora of conflicting information. Rather than blaming the victim for being lured away by a siren's song, we should learn to sing a more appealing tune.²

The gist of their message is "if you were smart, you'd agree with us, but no worries; it's society's fault that you're dumb." But it seems that non-elites are, in fact, quite capable of discerning what's happening behind the curtain...they just don't like it.

A recent historical essay, "Why the School Wars Still Rage" by Jill Lepore, recounts the referenced 130-year battle from the perspective of scientific and educational elites who felt duty-bound to take on parents "over who gets to tell our origin stories." Quoting original sources, she detailed a long saga of the elites' distrust of ordinary parents, saying:

The magazine *Parents* began publishing in 1926. "Devoted but unenlightened parenthood is a dangerous factor in the lives of children," its editor said, maintaining that parents weren't to be trusted to know how to raise children: they had to be taught, by experts.³

Lepore accepts that "experts seek the power of the state" to gain control over parents. Citing another educational elite, she revealed the remarkably long campaign for state control: "Each year the child is coming to belong more and more to the state, and less and less to the parent," the Stanford professor of education Ellwood Cubberley wrote approvingly in 1909."³

To sum up, two related behaviors should be noted that likely diminish public confidence. First, people might not like being constantly admonished to "listen to the experts." Many interpret this as "shut up and obey." Second, biological scientists' relentless efforts to control people's access to information, present one side of a story, and cancel dissenters—along with their near-hysterical reactions if any contrary information escapes to reach the public's ears—don't come across as protective measures but rather as a lot like indoctrination.

So, why do biological scientists engage in these two behaviors? They're both manifestations of authoritarian control. The steady drumbeat that experts reason things out better than others ever could tends to gradually lull the public into willingly accepting a misleading depiction of their own competence. This leads to blissful compliance. Similarly, controlling the public's access to information is necessary precisely because most people really *do* know how to critically evaluate both sides of an argument. Limited information leads to a guaranteed outcome.

The COVID-19 pandemic didn't create scientists who abuse the esteem that comes with the science profession in order to suppress nonconforming scientists and scientific findings; the pandemic merely exposed them. We may now be better informed to reconsider the role "the experts"—with their very human weaknesses and subjective emotions—should play in developing public policy.

A Rare Chance to Expose Darwin's Scientific Elites

We should appreciate that curtain-lifting seldom happens. This rare moment of scientific candor affords an opportunity for creationists. People may be open to contemplate the ways coercive tactics hurt science. We have an opportunity to teach them that *evolutionary* biologists pioneered and refined the thought-constraining tactics that have been employed to indoctrinate a trusting public.

How have they done this? By claiming that it's inconceivable to practice biology in any other way. Evolutionary biologists used intradepartmental strong-arm tactics to take control of how biologists must think about biology and must interpret biological phenomena.

We mustn't let history obscure our observations. During the pandemic we've witnessed members of the biological profession rushing to conform their advice to politically driven agendas, suppressing and persecuting dissenters, and, for many, clearly demonstrating they aren't quite the experts they'd led people to believe.

When we refresh people's memories, perhaps they'll be less inclined to regard the questions "Why do so many biologists believe in evolution? Can they all be wrong?" as *evidence for* evolution. They might be more willing to supply their own skeptical answers. It also makes it easier to show the ability of "consensus science" —especially when abetted by sympathetic news organizations and powerful governmental institutions—to effectively suppress minority views like those of creation scientists.

Conclusion

Creationists must continue to warn against trusting what scientific elites pronounce about Darwinian evolution. Evolutionists strive relentlessly to get people to believe one absurd story after another. These stories are rooted mostly in imagination and inference, not in science. People's beliefs about origins matter in terms of their behavior.

Many scientists embrace a worldview with a long history of misery and death—Darwin's death-driven selectionism, i.e., "survival of the fittest." The pandemic further highlighted the fact that the scientific elites' oppressive behavior has never been benign and is rapidly progressing to outright totalitarian control. Our practice of science should be the exact opposite.

The Lord Jesus loves scientists and nonscientists alike, and as creationists we should too. Respect for others is a way to show this love and that we trust their reasoning abilities enough to give them both sides of the story.

Let's lift the curtain all the way. Reject paternalistic control of information. Avoid substituting unsubstantiated stories for scientific evidence. Champion freedom of speech. And in humility speak the truth in love.

References

- Kennedy, B., A. Tyson, and C. Funk. Americans' Trust in Scientists, Other Groups Declines. Pew Research Center. Posted on pewresearch.org February 15, 2022, accessed February 27, 2022.
- Sullivan. B. How to Confront Anti-Science Sentiment: Reaching a science skeptic is not a matter
 of credentials; it's a matter of heart. The Scientist. Posted on the-scientist.com March 1, 2022,
 accessed March 2, 2022.
- Lepore, J. Why the School Wars Still Rage. The New Yorker. Posted on newyorker.com March 14, 2022, accessed on March 15, 2022.
- 4. Guliuzza, R. J. 2021. The Tyranny of Consensus Thinking. Acts & Facts. 50 (8): 4-6.

Dr. Guliuzza is President of the Institute for Creation Research. He earned his Doctorate of Medicine 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 and holds a B.A. in theology from Moody Bible Institute.



For the serious science reader

Flood Explains Mysterious Iceland Plant Fossils

ecently, a colleague alerted me to some unusual fossil discoveries on Iceland that are best explained by ICR's Flood model. ^{1,2} The fossils of interest are plants, specifically lignite, ³ trapped between lava layers. It's the plants' source that's the real mystery. How did these plants arrive on an island in the middle of the Atlantic Ocean?

Lignite layers have been found within six different sedimentary units along Iceland's coast, mostly on the northern and western flanks. 1-2 Some of these layers contain leaf fossils, stems, and pollen. About 40 species of flowering plants, seven conifers, and four ferns and fern allies have been identified in the lignite beds. 2 Many of these same plant fossils are found on North America and Europe at the same geological level.

Conventional scientists believe that the plants that make up lignite beds grew in the same place they were buried. In this case, the plants were sealed off and preserved by lava flows. But, plants cannot materialize on this island. Their presence requires a migration path from either North America or Europe or both. Although most of the species identified could have been dispersed to Iceland via wind, insects, or birds, some of the species are more problematic.

The authors of one of the studies clearly recognized this issue.

At least *Fagus* [beech] and *Aesculus* [buckeye and horse chestnut] have no potential for long distance dispersal and taxa such as *Ulmus* [elm], *Fraxinus* [ash], and *Tilia* [basswood] have a very restricted dispersal radius. Only Betulaceae [birch] and *Rhododendron* would have had the possibility to reach the island crossing extensive water masses.¹

Iceland is thought to have resulted from an anomalously high outpouring of

article highlights

- Lignite, also known as brown coal, is a form of sedimentary rock made from plants.
- Lignite is a fossil, and its discovery on Iceland was unexpected because the plants that make up the lignite had to have come from other continents.
- The Flood ripped up vegetation and pushed it onto Iceland's edges.



lava called a mantle plume.⁴ It formed in the middle of the Atlantic Ocean. According to ICR's research, Iceland's volcanism began late in the receding phase of the Flood during the deposition of Miocene (Upper Cenozoic) units. At this time, there was already a sizable ocean separating Iceland from the continents of Europe and North America.

Uniformitarian scientists have resorted to claims of "stepping stone" islands to explain the presence of these diverse plant species, a situation in which the plants essentially "island hopped." But, there is little evidence that the necessary closely spaced islands ever existed. Today, there are no sunken volcanoes between Europe and North America to provide an island pathway for these plants.

Secondly, there is no indication that the plants ever actually grew on Iceland. The thin sediments and lignite beds trapped between the lava flows show no evidence of rooting or erosion between layers. What is observed are extensive, flat-lying lava layers, one on top of the other, with no large time gaps in between.⁵

Is there a better explanation? ICR's Flood model suggests these plants were ripped off the land surface as the floodwaters rose over the pre-Flood continents. Many flowering plants lived at higher eleva-

tions and were the last to be inundated and stripped away.⁶ These plants were also mixed with ferns and other lower-elevation vegetation.

Catastrophic tsunamilike waves during the Flood's recession likely washed some of this floating plant debris mat onto the edges of Iceland as it emerged from the sea. Other waves washed plant debris out to the deep ocean, creating coal and lignite far offshore.⁷ Subsequent lavas, within days

or weeks, buried and sealed the plant fossils as lignite beds between flows.

No island hopping is necessary to explain these mysterious plant fossils—just a global flood like no other.

References

- Grimsson, F., T. Denk, and L. A. Simonarson. 2007. Middle Miocene floras of Iceland—the early colonization of an island? Review of Paleobotany & Palynology. 144 (3-4): 181-219
- Denk, T., F. Grímsson, and Z. Kvaček. 2005. The Miocene floras of Iceland and their significance for late Cainozoic North Atlantic biogeography. Botanical Journal of the Linnean Society. 149 (4): 369-417.
- Lignite is a low-grade form of brown coal created by compressed and heated plant material.
- A mantle plume is a deep-sourced melt that originates well below the crust. The origin of these plumes is unclear.
- Oskarsson, B. and M. S. Riishuus. 2014. The mode of emplacement of Neogene flood basalts in eastern Iceland: Facies architecture and structure of simple aphyric basalt groups. *Journal of Volcanology and Geothermal Research*. 289: 170-192.
- Clarey, T. 2020. Carved in Stone: Geological Evidence of the Worldwide Flood. Dallas, TX: Institute for Creation Research.
- 7. Clarey, T. 2021. Offshore Cenozoic Coal Confirms N-Q Flood Boundary. Acts & Facts. 50 (7): 7.

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

Gholson, TX First Baptist Church **Creation Sunday**

(J. Hebert) 214.615.8339

MAY 22

Lolo, MT Lolo Community Church (B. Thomas) 214.615.8306

JUNE 10

Dallas, TX ICR Discovery Center

Student Ministry Leaders Appreciation Day

ICR.org/StudentMinistryLeadersDay or 214.615.8333

MAY 13-14

Arlington, TX **Arlington Homeschool Resource Fair**

> (J. Johnson) 214.615.8339

MAY 30

Dallas, TX Memorial Day at the **ICR Discovery Center**

ICRdiscoverycenter.org/ Special-Events or 214.615.8364

JUNE 19

Tempe, AZ Grace Bible Church (B. Thomas, J. Hebert) 214.615.8333

MAY 15

Ypsilanti, MI Calvary Bible Church (F. Sherwin) 214.615.8339

MAY 30 - JUNE 4

Milligan, TN Milligan University **Biblical Worldview Student Conference** (T. Clarey)

BWSCTN.org or 214.615.8333

JUNE 19-23

Grand Canyon Adventure with Landmark Events

> (T. Clarev) LandmarkEvents.org or 210.885.9351

MAY 20-21

Missoula, MT

Mega Truth Conference with the **Institute for Biblical Authority**

(R. Guliuzza, B. Thomas) InstituteforBiblicalAuthority.org/ **Upcoming-Events**

JUNE 3-5

Tyler, TX CrossPointe **Community Church** 214.615.8306



Frank Sherwin, D.Sc. (Hon.)





CROSSPOINTE CHURCH

JUNE 21-24

Dallas, TX ICR Discovery Center

Christian Educators Conference with the Creation Training Initiative

CreationTraining.org



Mike Riddle



MAY 22

Missoula, MT Crosspoint Church (R. Guliuzza) 214.615.8306



For the latest ICR Discovery Center live science presentations, check our schedule at ICRdiscoverycenter.org/Live-Presentations

Providing a safe and enjoyable experience is a priority for ICR, and we are closely monitoring the COVID-19 situation. Since the public health recommendations change on a frequent basis, please check ICR.org/events for the most up-to-date event information. If you have questions about a specific event, please send an email to events@icr.org or call 800.337.0375 and press 6.

SAVETHE AUGUST 14-15

Martinsburg, WV Independent Bible Church

Designed to Diversify Seminar

(R. Guliuzza) 214.615.8306

SAVETHE SEPTEMBER 3

Dallas, TX

ICR Discovery Center Third Anniversary Celebration

ICRDiscoveryCenter.org/Special-Events or 214.615.8364

SEPTEMBER 14-20

Grand Canyon Adventure with Landmark Events

(T. Clarey) LandmarkEvents.org or 210.885.9351

SAVETHE OCTOBER 11-15

Dallas, TX | ICR Discovery Center

The Great Recital: The Entire New Testament Quoted Dramatically from Memory

(Tom Meyer and others)
ICR.org/ScriptureMemory or 214.615.8364

SAVETHE OCTOBER 14-15

Spokane, WA Fourth Memorial Church

Unlocking the Mysteries of Genesis Conference

(R. Guliuzza, T. Clarey, F. Sherwin) ICR.org/SpokaneWA or 214.615.8306



Dr. Tim Clarey at Houston's First Baptist Church



Dr. Clarey and Dr. John Baumgardner at Houston's First Baptist Church



Dr. Randy Guliuzza at the Made in His Image Seminar at the ICR Discovery Center, Dallas, Texas



Dr. Tim Clarey at Goodnews Baptist Chapel, Dozier, Alabama



Dr. Brian Thomas at Trinity Christian Academy, Addison, Texas



YELLOWSTONE NATIONAL PARK, PART 1: A FLOOD SUPERVOLCANO

TIM CLAREY, PH.D., AND BRIAN THOMAS, PH.D.



The Yellowstone portion of ICR's 2021 science expedition. Left to right: Media Director Michael Hansen, Events Director Joel Kautt, and Research Scientists Drs. Tim Clarey and Frank Sherwin at the Grand Canyon of the Yellowstone River overlook.

ellowstone became the world's first national park in 1872. Geologist Ferdinand Hayden led an expedition the year before through much of what became the 2.2 million-acre park, and his report helped convince the U.S. Congress to set aside the land for that purpose. It occupies the northwestern corner of Wyoming and spills into Idaho and Montana.

The park is unique for its travertine flows, mud pots, hot springs, and canyons. It houses over 10,000 thermal features and over half the world's geysers. Its otherworldly landscapes plus raw wildlife have been sufficient causes to protect the region for generations. In this two-part series, we'll explore park features that fit well with biblical history.

Volcanic Beginnings

Yellowstone is one of about 12 supervolcanoes in the world. Thick layers of volcanic ejecta from huge eruptions cover most of the area and beyond. The middle of the park is a volcanic plateau that lies about 7,300 feet above sea level. Yellowstone Lake rests within the plateau, and mountain peaks taller than 11,000 feet surround it.



article highlights

- A supervolcano formed Yellowstone National Park's dramatic landscape, erupting during the Flood about 4,500 years ago.
- Volcanic evidence in Yellowstone and nearby demonstrates the rapid tectonic plate movements and catastrophic conditions that slowed dramatically after the Flood.
- The magma that heats the park's geysers is evidence of the short time that's elapsed since the Flood, and microbial life flourishes in the hot springs' steaming waters.
- Yellowstone's geological formations, unique geysers, and microbe-loving hot springs point to the Flood's effects and Christ Jesus' creative genius.

The central plateau has three overlapping calderas, or collapsed volcanoes. Each collapse occurred after a major eruption. The largest eruption occurred first, and the smallest happened last. This trend reveals diminishing power over time instead of the steady processes that uniformitarians imagine. That scenario fits what we would expect as Earth recovered from the tumultuous Flood about 4,500 years ago.²

Geologists noticed a line of older calderas that extends from Yellowstone to Oregon. Conventional scientists consider this trail to have formed from a mantle hot spot as Earth's crust slowly moved across it over millions of years.³

However, millions-of-years age assignments rely on an assumed evolutionary timeline, not directly on data. The Institute for Creation Research has a far better interpretation. Evidence continues to build that Earth's tectonic plates moved much faster during the Flood year. A Rapid relative movement of North America over a mantle hot spot likely formed the volcanic trail, perhaps within months. Catastrophic conditions slowed dramatically after the Flood. Today, we see little plate motion or volcanism at Yellowstone.

The magma source at Yellowstone is high in silica (quartz-rich). This resulted in especially violent eruptions. In contrast, basalt magmas are lower in silica and flow more gently, like those erupting in Hawaii. Silica-rich continental crust likely altered the deep mantle magmas that rose to the surface at Yellowstone. This unique magma

chemistry also helps explain its geysers and hot springs.

Geysers and Hot Springs

Geysers are hot springs that emit jets of hot water and steam. They need an active shallow heat source to superheat groundwater into steam. Yellowstone provides that with magma detected just three miles below the surface.⁵

They also need a fairly watertight plumbing system.⁶ The silica-rich magma provides that too. Silica dissolves in circulating hot groundwater. It then drops out of solution (precipitates) onto the fracture surfaces and conduits to form a hard deposit called sinter. This deposit seals water in and makes constrictions that allow geysers to build up pressure.⁶



Water underground expands as it warms until spaces inside the conduits become compressed, like a pressure cooker. Steam and fluids rise, and in places reach Earth's surface at nearly 200°F, sometimes jetting into the sky.⁶ Creation scientists speculate how the geysers might illustrate the eruptions through great fractures that took place around the planet when the fountains of the great deep burst open at the start of the Flood (Genesis 7:11).

Old Faithful

Yellowstone's most popular geyser, Old Faithful, may not produce the tallest eruption—although its 130 feet-plus average is impressive—but, as its name implies, it's one of the most predictable. This regularity stems from its steady source of underground water.

But Old Faithful does change. Several decades ago, it averaged less time between eruptions. Local tremors have since lengthened that time.⁷ Geysers like Old Faithful point to the role that water played in the formation of Earth and then its reformation during the Flood (2 Peter 3:5-6).

Rainbow Pools

Rainbow-colored hot springs like Grand Prismatic Spring may present the most striking of Yellowstone's natural wonders. Different microbial mats form rainbow-like rings when viewed from above. Ferdinand Hayden stated in 1871, "Nothing ever conceived by human art could equal the peculiar vividness and delicacy of color of these remarkable prismatic springs."

Hot water rising from depth cools as it flows from the center of the pools. Heat-loving (thermophilic) microbes called *Synechoccus* use unique biochemistry to pioneer the perimeter of the 370 foot-diameter Grand Prismatic Spring. They live there at about 150°F (65.6°C).

These cyanobacteria harvest sunlight to obtain energy. In the summer, they deploy yellow pigments to protect their vital DNA from the sun's UV rays. Remarkably, it uses those same pigments to reassign that would-be-damaging light energy toward its green pigments (chlorophylls) for photosynthesis.

Outside the pool's yellow ring grows a mixture of microbes that together look orange. An even wider red ring lies outside of that. The wider variety of microbes here also use their pigments for protection and light harvesting, but each variation harvests a dif-

ferent part of the light spectrum available for photosynthesis. As the microbes share the light, they convert and store its energy into sugars.

These marvelous microbes form strings, filaments, and mats as they trade resources. Surface dwellers give their sugars to microbes beneath them and receive other nutrients in return. None of this works without precision microengineering, for which an actual engineer like the Lord Jesus deserves full credit.

Mammoth Hot Springs

Hot springs can bring up dissolved lime, sulfur, and even mud. North of Yellowstone's main caldera, Mammoth Hot Springs conveys two tons of dissolved lime from depth per day.5

The water here likely gets its heat not from magma like the geysers but from Earth's thermal gradient (increasing temperature with depth) far beneath the surface. The complex at Mammoth Hot Springs covers nearly a square mile and deposits more lime than any other spring in the world.6

As the water cools at the surface, lime precipitates to form travertine, a form of limestone, in a complex of terraces. Travertine deposits can grow fast under the right conditions. Extrapolating today's deposition rate into the past shows that this hot spring complex has been active for only thousands of years.

Conclusion

Yellowstone is a beautiful and awe-inspiring reminder of the global Flood. Calderas and thousands of feet of volcanic rock bear witness to great catastrophes that occurred during the Flood year. The magma that powers active geysers has not yet fully cooled, which is what would be expected from the relatively short time since the Flood.

Christ Jesus' creative genius explains the microbes that collaborate to thrive in extremely hot waters. The hot springs display part of the Lord's provision of the hydrologic cycle that moves water around our planet. Although the Flood destroyed the world that then was, it left behind beauty and wonders that point us to Him.

References

- Tweit, S. J. 1999. Yellowstone. In America's Spectacular National Parks. L. B. O'Connor and D. Levy, eds. Los Angeles, CA: Perpetua Press, 76-79.
- Austin, S. A. 1998. The Declining Power of Post-Flood Volcanoes. *Acts & Facts.* 27 (8). A hot spot is thought to form from a near-stationary deep mantle plume of high heat capable of producing a melt through the overriding crust.
- Clarey, T. Plate Subduction Beneath China Verifies Rapid Subduction. Creation Science Update. Posted on ICR.org December 23, 2020, accessed February 12, 2022; Clarey, T. 2020. Carved in Stone: Geological Evidence of the Worldwide Flood Dallas, TX: Institute for Creation Research.
- How big is the magma chamber under Yellowstone? U.S. Geological Survey FAQ. Posted on usgs.gov, accessed February 17, 2022.

 Hacker, D. and D. Foster, 2018. Yellowstone National Park: Northwest Wyoming, Eastern Idaho,
- Southern Montana. In *The Geology of National Parks*, 7th ed. D. Hacker, D. Foster, and A. G. Harris, eds. Dubuque, IA: Kendall-Hunt, 765-791.

 Milstein, M. Old Faithful slows, but grows. *Billings Gazette*. First captured online January 17,
- 2001. Retrieved from webarchive.org January 11, 2022.

 Theurer, J. Colors of Curiosity: Yellowstone's Microbes. Yellowstone Quarterly. Posted on yellowstone.org April 16, 2019, accessed January 13, 2022.

 Geiling, N. The Science Behind Yellowstone's Rainbow Hot Spring. Smithsonian Magazine. Post-
- ed on smithsonianmag.com May 7, 2014, updated May 12, 2016, accessed January 14, 2022.

Drs. Clarey and Thomas are Research Scientists at the Institute for Creation Research. Dr. Clarey earned his Ph.D. in geology from Western Michigan University, and Dr. Thomas earned his Ph.D. in paleobiochemistry from the University of Liverpool.





Grand Prismatic Spring



Mammoth Hot Springs



Dr. Brian Thomas (left) and editor Truett Billups at Grand Prismatic Spring on the ICR 2021 science expedition, on which this article's images were taken

For the serious science reader

The Five Rules of Flood Paleontology

ost people assume that both geological and fossil evidence support the story of evolution. Geology textbooks portray the formation of canyons, mountains, oil deposits, and other features as representing millions of years. And charts and diagrams line up fossils that supposedly show seamless transitions between life forms that branch from a "simple" initial ancestor to the complex diversity we find today.

But what does the evidence actually show? When you look closely at the rock record, you'll see that five rules of global Flood paleontology explain both the fossil evidence and also the overall succession of global megasequences that were deposited by the Genesis Flood. No evidence for deep time is found in the rock column, and fossils show the order of burial in the Flood year.

Synopsis of the Global Flood

The ICR Column Project team, led by geologist Dr. Tim Clarey, has mapped out the rock record of the global Flood across the world's continents using extensive data from petroleum industry wells, rock

outcrops, seismic data, and published cross-sections. ¹ ICR scientists have input detailed sedimentary rock data along with megasequence boundaries across every region, including the continental shelf. These data confirm the reality of a global geologic column created by the action of the global Flood. This monumental and unprecedented project has shown that the global Flood is represented by the same sedimentary rock-record trends on every continent that's been evaluated.

Not only does the overall stratigraphic sequence of the Flood record correspond globally, but the data also show that the Flood occurred in a series of progressive inundations corresponding to each megasequence. These inundations were caused by violent tsunamilike waves over the yearlong period of the Genesis Flood. These progressive ebb-and-flow events began their sediment and fossil deposition in the lowest regions of the continental shelf (shallow seafloors near land), proceeded to the edges of landmasses (lowland coastal regions), and then moved progressively upward onto land until finally the entire global landscape was under water.

During this violent global catastrophic process, aided by rapid tectonic plate movement, the original pre-Flood mega-continent split

The Five Rules of Global Flood Paleontology

- Sudden appearance: creature kinds appear suddenly in the rock record with no evidence of evolutionary ancestors.
- Stasis: fossil creatures look similar to living counterparts as well as fossil counterparts buried later, with no evidence of evolution.
- **3.** Marine mixing: land creatures are often found mixed and buried together with marine creatures.
- **4.** Burial by ecological zonation: as the floodwaters steadily progressed from the oceans onto land, there's a corresponding representation of ecosystem burial.
- **5.** Recent burial around 4,500 years ago: soft tissue and biomolecules are found in fossils in all Flood strata.



apart into the global configuration of the various continents we see today. Then in the latter stage of the Flood, the newly separated continents experienced continental and mountain range uplift, and the floodwaters receded. This final stage of the Flood was characterized by vast amounts of water and sediment draining across and pouring off the continents. Much of this sediment deposition took place especially in large basins on land next to mountain ranges and offshore in the oceans.

The Importance of Integrating the Fossil Record

Now that an accurate geological model of the global Flood has been developed, it's important to begin integrating the fossil record with the stratigraphic data. After all, the thousands of meters of Flood sediments across the globe contain vast amounts of fossils buried within them as a further testament to the Genesis Flood record. But do these vast layers of fossil-laden sediments confirm the story that geology has revealed?

Indeed, they do fully corroborate the Flood's rock record, and they also tell us much more about the nature of the Flood's processes. For many years creationists have rightly acknowledged that the fossils bear record of the global Flood. In other words, why are trillions of dead plants and animals buried all over the earth? Localized catastrophes certainly do not provide a satisfying answer.

And even worse for those who ignore the truth of Scripture, there's virtually no evidence of evolution in the fossils. The huge diversity of plants and animals all appear suddenly with no signs of transitional forms (discussed further below). Even the renowned Harvard paleontologist Stephen Jay Gould candidly admitted this inconvenient but obvious truth.

The extreme rarity of transitional forms in the fossil record persists as the trade secret of paleontology. The evolutionary trees that adorn our textbooks have data only at the tips and nodes of their branches; the rest is inference, however reasonable, not the evidence of fossils.²



Coelacanth, a living fossil

Creationists have also noted that various kinds of creatures not only appear suddenly in the rock record but look nearly identical to their living representatives after supposed millions of years of time.³⁻¹⁴ Paleontologists call this lack of evolutionary change "stasis."

But is sudden appearance and stasis the end of the story when it comes to applying the fossil data as proof of a global flood? Clearly, it isn't, and now that an accurate global sedimentation model for the Flood has taken shape, we need to add the paleontological data as well. This will help answer the questions of why we often find land creatures mixed with marine creatures, and why we find distinctive types of fossils that correspond to the various strata in the geologic column.

Sudden Appearance and Stasis

From the Cambrian rock layers near the bottom of the geologic column, where complex life first appears, to the uppermost section of Flood sediments in the Cenozoic, we see many types of fossil creatures and plants appearing suddenly with no previous evolutionary ancestors. In fact, the sudden explosion of marine animals in mind-boggling diversity in the Cambrian is one of evolution's greatest conundrums.³

Not only does this initial explosion negate evolution, many Cambrian creatures are still with us today and look highly similar to their alleged 400 million-year-old-plus ancestors. Starfish, brittle stars, and horseshoe crabs are stellar examples of not only sudden appearance but stasis. This same evolution-negating fossil trend can be observed at every stratigraphic level of the geologic column.³⁻¹⁴



Horseshoe crab

Marine Mixing

The Flood was a marine event with massive successive tsunamilike waves generated by tectonic plate motion that progressively pushed the ocean's water up onto land. Thus, we would expect the constant mixing of marine life with land creatures in the fossil sediments. In fact, that's exactly what we see in the paleontological record beginning with the Carboniferous strata, when the floodwaters first began inundating land.⁸

In the Carboniferous, we see huge levels of marine life (fish and shellfish) mixed with land plants, insects, and lizards. This same trend continues upward in the geologic column at every level. 9-14 For example, sharks are found buried with dinosaurs in the Cretaceous, and squirrels, bats, and other mammals are found buried with rays and herring in the Lower Cenozoic.



Fossil bat from Green River Formation, Wyoming

Burial by Ecological Zonation

The progressive global cataclysm initially buried marine life, as found in the earliest Flood layers known as the Cambrian, Ordovician, Silurian, Devonian, and Lower Carboniferous systems, which correspond to the Sauk, Tippecanoe, and Kaskaskia Megasequences. As the floodwaters began inundating and destroying land, they buried tropical coastal ecosystems, which included a variety of insects, lizard-like creatures, and immense amounts of lush coastal vegetation that formed the first massive coal seams in the geologic column. This first cataclysmic pulse onto land is represented by the Late Carboniferous or first part of the Absaroka Megasequence.

Then as the floodwaters continued, we see the progressive burial of other inland ecosystems in successively higher and more temperate environments until the high-water mark of the Flood was reached near the end of the Cretaceous system (Zuni Megasequence). The final burial phase of inland plants and animals culminated with the massive Flood runoff that occurred as the mountains and continents were uplifted at the end of the Flood, creating most of the Cenozoic layers and massive basin deposits (Tejas Megasequence).

Recent Burial 4,500 Years Ago

Another key aspect of the entire sedimentary rock record is the overwhelming evidence that it was laid down recently, about 4,500 years ago in the yearlong global Flood. This biblical date for the Flood, determined by genealogies and chronologies, fits perfectly with the rock record evidence. The recent date is proven by the fact that every layer of the sedimentary rock record from the Cambrian to the Pliocene (Late Cenozoic) contains fossils with soft tissue and/or sensitive biomolecules that shouldn't be present if they are millions of years old as claimed by evolutionists.³⁻¹⁴

Conclusion

In summary, the five rules of global Flood paleontology explain the fossil evidence of the rock record and also fit closely with the overall succession of global megasequence deposition by the Flood. These rules are 1) Sudden appearance: creature kinds appear suddenly in the rock record with no evidence of evolutionary ancestors; 2) Stasis: fossil creatures look similar to living counterparts as well as fossil counterparts buried later, with no evidence of evolution; 3) Marine mixing: land creatures are often found mixed and buried together with marine creatures; 4) Burial by ecological zonation: as the floodwaters steadily progressed from the oceans onto land, there's a corresponding representation of ecosystem burial; and 5) Recent burial around 4,500 years ago: soft tissue and biomolecules are found in fossils in all Flood strata.

The Genesis record is accurate.

References

- Clarey, T. 2020. Carved in Stone: Geological Evidence of the Worldwide Flood. Dallas, TX: Institute for Creation Research, 312-353.
- 2. Gould, S. J. 1977. Evolution's Erratic Pace. Natural History. 86 (5): 12-16.
- 3. Tomkins, J. P. 2020. The Fossils Still Say No: The Cambrian Explosion. Acts & Facts. 49 (12):
- Tomkins, J. P. 2021. The Fossils Still Say No: The Origin of Vertebrates. Acts & Facts. 50 (1): 10-12.
- Tomkins, J. P. 2021. The Fossils Still Say No: The Mystery of Jawed Vertebrates. Acts & Facts. 50 (2): 12-14.
- Tomkins, J. P. 2021. The Fossils Still Say No: The Fins-to-Feet Transition. Acts & Facts. 50 (3): 10-13.
- Tomkins, J. P. 2021. The Fossils Still Say No: Missing Early Evolution of Land Vertebrates. Acts & Facts. 50 (4): 10-12.
 Tomkins, J. P. 2021. The Fossils Still Say No: Enigma of the Carboniferous Explosion. Acts &
- Facts. 50 (5): 11-13.

 9. Tomkins, J. P. 2021. The Fossils Still Say No: Global Flood Solves Permian Perplexities. Acts &
- Facts. 50 (6): 10-12.

 10. Tomkins, J. P. 2021. The Fossils Still Say No: Tumultuous Triassic Tussle. Acts & Facts. 50 (7):
- 10-12.
- Tomkins, J. P. 2021. The Fossils Still Say No: Jostle in the Jurassic. Acts & Facts. 50 (8): 10-12.
 Tomkins, J. P. 2021. The Fossils Still Say No: Capping a Cretaceous Conundrum. Acts & Facts. 50 (9): 8-11
- Tomkins, J. P. 2021. The Fossils Still Say No: The Surly Cenozoic Flood Finale. Acts & Facts. 50 (10): 8-11.
- Tomkins, J. P. 2021. The Fossils Still Say No: The Post-Flood Providential Pleistocene. Acts & Facts. 50 (11): 8-11.

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





acteria are tiny single-cell organisms that show a huge range of metabolic and genetic variation, and also exist in a wide array of shapes and sizes. Bacteria, which are classed among the life forms called prokaryotes, are a part of the three domains of taxonomy, the other two being Eukarya (organisms with nuclei) and Archaea (the second group of prokaryotes). Like bacteria, archaea have no nuclei, but they don't cause disease and have very different cell walls.

Some people call bacteria "simple," but this is incorrect.1 All bacteria have very complex cellular systems, and some are even photosynthetic.² In fact, many bacteria are symbionts (interreacting with plants and animals) and are essential to life on Earth.

In early 2022, a huge bacterium was discovered that measured at just over threequarters of an inch long (about 2 centimeters). It looks like a thin string and resides among mangroves in the Caribbean. Researchers named it *Thiomargarita magnifica*.³

There is nothing simple about this bacterium. Scientists "found the genome [the total genetic material within the cell] was huge, with 11 million bases harboring some 11,000 clearly distinguishable genes. Typically, bacterial genomes average about 4 million bases and about 3900 genes."3

Some evolutionists have suggested that T. magnifica might be an evolutionary link between bacteria (prokaryotes) and cells that have a membrane-bound nucleus

Biq Bacterium a Missing Link?

article highlights

- A recently discovered bacterium, Thiomargarita magnifica, has 11 million bases in its genome—over twice that of normal bacteria.
- Due to its unique DNA pouch, some evolutionists think this organism might be a missing link between prokaryotes and eukaryotes.
- But Thiomargarita magnifica is simply another intricate life form designed by the Creator Jesus Christ to thrive on Earth.

(eukaryotes). People, fungi, plants, and animals are all made up of eukaryotic cells.

T. magnifica is suggested as a missing link because this huge bacterium's DNA is enclosed inside a membranous pouch, just as eukaryotic cells have a very complex membrane-bound nucleus containing DNA. However, there are other ways to view this structure without invoking evolution. For example, having the cell's genetic material concentrated within a small area makes sense from a creation/design standpoint. Indeed, according to a Science article:

Protein production factories called ribosomes were inside the DNA-filled sac as well, likely making the translation of a gene's code into a protein more efficient. "Separating genetic material from everything else allows more sophisticated control and greater complexity," says Chris Greening, a microbiologist at Monash University, Clayton.3

In addition, T. magnifica has a large water-filled pouch that takes up over 70% of the cell's volume. It pushes the cell's contents against its outer wall. "The bacteria's essential molecules can still diffuse in and out because 'only [along the edge] is the cell living, says [Verena] Carvalho, [a University of Massachusetts microbiologist] who worked on this group of bacteria."3 This is a critical design feature that evidently maintains the metabolic activities of the bacterium and has nothing to do with random evolution.

Creationists view this unique bacterium just as we do Tiktaalik, an extinct lobefinned fish that was a former missing link candidate.4 Instead of representing a transition between fins and legs, Tiktaalik's features would have worked well in the marshy interface between open water and land in the pre-Flood world, making it well-suited to this transitional zone.

The same might be said on a smaller scale for Thiomargarita magnifica. Instead of being a "microbe [that] blurs the line between prokaryotes and eukaryotes,"3 it was specifically designed by the Creator to proliferate in a unique ecological niche among the tropical mangroves.

References

- Sherwin, F. Bacterial Complexity. Creation Science Update.
- Posted on ICR.org February 7, 2022. Kim, M. and J. Lee. 2011. Comprehensive Biotechnology, 2nd ed. Waltham, MA: Elsevier. Consider also Chloroflexi (green, non-sulfur bacteria), and the large group called cyanobacteria.
- Pennisi, E. 2022. Largest bacterium ever discovered has an unexpectedly complex cell. *Science*. 375 (6584).
- Sherwin, F. Banner Fossil for Evolution Is Demoted. Creation Science Update. Posted on ICR.org January 27, 2010.

Dr. Sherwin is Research Scientist at the Institute for Creation Research. He earned an M.A. in zoology from the University of Northern Colorado and received an Honorary Doctorate of Science from Pensacola Christian College.





The recently discovered Thiomargarita magnifica bacterium is three-quarters of an inch long. Its single-cell filaments are visible next to a dime.

Image credit: Copyright © 2022 American Association for the Advancement of Science. Used in accordance with federal copyright (fair use doctrine) law. Usage by ICR does not imply endorsement of copyright holder.

Speculation, Invention, and the Invisible Hand

volution is broadly and almost unequivocally accepted as fact. Creationists who try to present the evidence contradicting it are often met with "How can you go against proven science?" But is evolution really based on science?

How Does Science Work?

The scientific method is an investigative process based on stringent observations and testing. It starts with a speculation based on logic. This scientific hypothesis is a prediction, essentially an educated guess about how observations of nature might work together or what causes them to happen. As such, a hypothesis is a limited explanation of a phenomenon.

A scientific theory is a demonstrable step beyond a hypothesis. It's a logical explanation of an aspect of nature based on confirmed observations. In other words, the initial hypothesis' prediction has been tested and substantiated to a high degree of scientific confidence. An explanation of a phenomenon is categorized as a theory only if the data merit the classification. A theory must therefore have substantial explanatory power.

Only after a series of observational testing from many different angles does a theory become scientific law. The key to this process is testability. A hypothesis must be readily testable to move beyond a hypothesis, and a theory must be exhaustively testable to be called a law. Scientific precision results from a prediction that's successfully gone through the rigors of the scientific process and has a demonstrable conclusion.



article highlights

- The scientific method begins with a question about an observation. A proposed answer is a hypothesis—a prediction.
- Successful testing of the hypothesis leads to a theory, and successful testing of the theory over time leads to a scientific law.
- A scientific construct is an invention, an undemonstrated hypothesis used to explain something such as evolution's foundational construct called natural selection.
- Evolution is unscientific because it's based on an invention rather than a scientific conclusion.

Evolution's Invisible Hand

How does evolution measure up to the scientific method? At first glance, Darwin's "I think" drawing of the first rudimentary evolutionary tree appears to be a hypothesis. He observed that species vary widely per environment. The Galapagos Islands are a showcase for dramatic speciation, and Darwin used his observations there as a springboard for his idea that creatures somehow evolve.

But Darwin never observed one creature evolving into another creature kindhis imagination was the source of his idea. Even today, the examples evolutionists offer as demonstrations of evolution are all lowconfidence science.1 Darwin conjectured about the forces that might drive creatures to change and invented a mystical concept called natural selection from outside his observations.

Darwin never saw nature selecting; he observed speciation, a step in the process of how creatures adapt to changing environments. His concept of natural selection isn't built on objective empirical evidence; it's a subjective framework for interpreting observations.

Here's the point: Nature can't select—it has no such ability. When Darwin offered natural selection as a means by which creatures change, he invented an unseen intelligent agent—an invisible, undetectable power—that supposedly exerts remarkable creative power. Darwin thus conjured an "invisible hand" that propels living organisms to somehow change in just the right ways to become more fit for survival.

But nature has no volition, mind, will, or consciousness. Instead, it's the creature's own innate abilities that lead to its adaptation. The creature possesses the potential responses to change for its programmed systems to select; nature does not. Nature is a set of vibrant, complex, ever-changing conditions-and that makes the creatures' continuous reading of and appropriate adaptations to nature's changing conditions all the more remarkable.2

In contrast, Darwin's natural selection is a fictional account of living processes driven by imagination, not observation. As such, it's a construct, an abstract idea largely dependent on the subject's mind. By definition, a construct isn't real and has no true explanatory power, although it's undemonstrated speculations can be misused as an explanatory cause.

Science must be data-driven, not imaginary construct-driven. Darwin's "invisible hand" of natural selection has no basis in reality and doesn't measure up to the dictates of science.

The invisible hand in nature is the creative hand of our Creator, Christ Jesus. He designed creatures to respond to their environments in just the right way from the beginning: "By Him all things were created that are in heaven and that are on earth."3

References

- Stadler, R. 2016. The Scientific Approach to Evolution: What
- They Didn't Teach You in Biology. CreateSpace.
 The creature is 1) on constant lookout for specific changes in the environment and 2) possesses the ability to react to each change with a variety of possible appropriate responses. The creature then 3) responds with the correct action to the condition, 4) performs the action within

a conducive time frame, and finally 5) transfers the response ability to subsequent generations.

Colossians 1:16.

Mr. Stamp is an editor at the Institute for Creation Research.



ICR's School of Biblical Apologetics

he Institute for Creation Research's School of Biblical Apologetics (SOBA) was launched over 12 years ago. ICR's SOBA programs provide biblical creation-based apologetics for seeking, finding, and sharing God's truth. SOBA teaches biblical education and apologetics, blending over 50 years of biblical creationaffirming research, education, and outreach.

SOBA programs prioritize the Lord Jesus Christ as the preeminent Creator God, who is worthy of our worship, with educational programs emphasizing commitment to God's truth for personal and ministry applications. SOBA's Bible-honoring faculty is committed to ICR's core tenets regarding the creation account, Adam's original sin in Eden, the global Flood, the Genesis dominion mandate, the Great Commission, and debunking "science falsely so called" (1 Timothy 6:20, KJV).

As its name suggests, SOBA promotes biblical apologetics, a phrase chosen to emphasize the real source of authoritatively relevant and knowable truth—the Holy Scriptures.

What: SOBA programs include the in-depth Creationist Worldview certificate program; Origins Matters Short Course certificates; undergraduate and graduate degree programs (e.g., Bachelor of Christian Education, Master of Christian Education); ACSI-credentialed Back to Genesis series lectures for CEU credits; and occasional off-campus educational programs (e.g., seminary lecture series, pastors' conference messages, homeschool events, school chapel messages, etc.).

When: SOBA is asynchronous, so its online programs are usable 24/7. Whether you learn best at midnight or in the middle of the day, this online learning program will fit your busy lifestyle.

Who: The SOBA faculty includes credentialed ICR personnel, plus subject-specific adjunct faculty.

Why: SOBA's purpose is found in Revelation 4:11: "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."

How: SOBA's practice is found in Ezra 7:10: "For Ezra had prepared his heart to seek the Law of the LORD, and to do it, and to teach statutes and ordinances in Israel."

Where: Visit **ICR.edu** to register or for additional information.



Left to right: Deputy Chief Academic Officer and faculty member Dr. Jeffrey P. Tomkins, Chief Academic Officer and faculty member Dr. James J. S. Johnson, and Registrar and Academic Coordinator Mrs. Mary Smith



ICR SOBA reunion dinner on February 19, 2022



ICR SOBA reunion dinner



Deputy Chief Academic Officer Dr. Jeffrey Tomkins receives his M.C.Ed. diploma from Chief Academic Officer Dr. James J. S. Johnson

hy are evolutionists surprised to learn that birds are intelligent, careful, and very caring? Birds communicate among themselves, use tools, and often demonstrate altruism (unselfishly caring for others)-sometimes risking their own welfare to care for a neighbor in need.1 Yet, if evolutionists would take Scripture seriously, especially Genesis, they would not be surprised, because Christ bioengineered bird kinds with builtin traits designed to fit them for population success.1

Accordingly, these evolutionists err because they have the wrong biological theory of bird behaviors. They fail to recognize God's Genesis mandatepurposed designs (including continuous environmental tracking systems)2 that pre-

dispose bird populations toward successful "filling" of various post-Flood environments (Genesis 9:1-7).

Consider, for example, how caring birds—such the African savannah thrush called the southern pied babbler (Turdoides bicolor)—altruistically serve as risk-taking sentinels, willingly endangering themselves to protect their friends and families.

We found that [Turdoides bicolor] sentinel behaviour was costly because (a) sentinels were targeted by predators more often, (b) they were further [sic] from cover than foragers, and (c) they took longer to reach the safety of cover following a predator alarm....These results suggest that individuals do not become sentinels because it is safer. This is the first study to demonstrate that sentinels are at greater risk of predator attack than foraging group members.3

Likewise, consider how some corvids-such as America's scrub jay, Eurasia's Siberian jay, and the Australian magpie rescue other birds from predators or from "ankle bracelet"-like GPS monitors.



article highlights

- Some birds act as sentinels to guard other birds—a dangerous activity, the opposite of self-serving survival-of-the-fittest behavior.
- Other birds help each other in similar ways, something that evolutionists can't explain.
- Men and women are higher creatures than animals, not because we have better abilities but because we're made in God's image.

Here, we describe one such study trialling [i.e., trial-experimenting] a novel harness design for GPS tracking devices on Australian Magpies Gymnorhina tibicen. Despite previous testing demonstrating the strength and durability of the harness, devices were removed within minutes to hours of initial fitting. Notably, removal was observed to involve one bird snapping another bird's harness at the only weak point, such that the tracker was released.4

Humans deem themselves higher than animals, but how are we higher? Some animals are bigger, faster, hear better, smell better, reproduce better, swim better, live longer, communicate farther, ascend

> higher, descend lower, etc.5 So, a quantitative comparison using "more is better" assumptions cannot explain why mankind is higher in created value and glory than the animal

> > kingdom.

Yet, as creatures go, mankind is qualitatively higher than other life forms, such as birds.6 Specifically, the greatest qualitative difference is that humans-male and female (starting with Adam and Eve)-are God's favorites, uniquely created in God's own image.6 Thankfully, as God's most-favored

> creatures, we humans can individually receive personal redemption and eternal life (John 3:16), with everlasting gratefulness unto Christ our Creator-Redeemer.

- Regarding jackdaw intelligence, see Johnson, J. J. S. Jackdaw Identify "Dangerous" from "Safe" Humans. Creation Science Update. Posted on ICR.org May 4, 2020, accessed March 14, 2022. Regarding crows using tools, see Johnson, J. J. S. 2017. Clever Creatures: 'Wise from Receiving Wisdom.' Acts & Facts. 46 (3): 21.
- 2. For more information on continuous environmental track-
- ing, visit ICR.org/cet.
 3. Ridley, A. R., M. J. Nelson-Flower, and A. M. Thompson. 2013. Is Sentinel Behaviour Safe? An Experimental Investigation. Animal Behaviour. 85 (1): 137-142, quoted in Johnson, J. J. S. 2020. Sentinels Are Needed in Perilous Times. Acts & Facts. 49 (8): 21.
- Crampton, J., C. H. Frère, and D. A. Potvin. 2022. Australian Magpies Gymnorhina tibicen Cooperate to Remove Tracking Devices. Australian Field Ornithology, 39: 7-11. See also Nowbahari, E. and K. L. Hollis. 2010. Rescue Behavior: Distinguishing Between Rescue, Cooperation and Other Forms of Altruistic Behavior. Communicative & Integrative Biology. 3 (2): 77-79. Regarding corvids' rescue altruism, see Johnson, J. J. S. Coast Guards and Corvids: Flying to the Rescue! Creation Science Update. Posted on ICR.org June 9, 2020, accessed March 14, 2022.
- Willfully ignoring God's life, evolutionists are famous for imagining humans as the "highest form of life" in the universe. However, the Lord Jesus Christ's intelligence is infinitely higher than mankind's. Christ is very active in our universe and is transcendent over it as its Creator! Evolutionist Nicholas Longrich relies upon a mix of imagined "natural selection" and "improbable fluke" luck, assuming that evolution can occur eventually, similar to how he imag-ines lucky literature from imaginary monkeys incessantly typing on magical typewriters. See Longrich, N. R. Evolution Tells Us We Might be the Only Intelligent Life in the Universe. The Conversation. Posted on theconversation. com October 18, 2019, accessed March 10, 2022. However, due to the Second Law of Thermodynamics, no such lucky typewriters can ever produce biological life via abiogenesis, despite infinite time. See Johnson, J. J. S. 2018. Infinite Time Won't Rescue Evolution. Acts & Facts. 47 (6): 21.
- Genesis 1:26-28. See also Psalm 8; Romans 8:29; Colossians 3:10; 2 Corinthians 2:18.

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





any people relate stewardship to managing money. When they consider their resources, money comes to mind, along with vehicles, homes, investments, clothes, and so on. But how often do we include *people* when we think about stewardship?

The Greek word for stewardship in the New Testament is *oikonomos*, which is translated "household manager." In the Christian context, it involves being responsible for managing the resources the Lord has entrusted to us. A steward is accountable to the "master" or owner of the resources. The master has entrusted the steward with something of value, and his desire is that these resources are managed, or stewarded, appropriately and effectively.

In Job 41:11, the Lord says, "Everything under heaven is Mine." Colossians 1:16 states, "All things were created through Him and for Him." This definitely includes people. God says in Genesis 1:26, "Let Us make man in Our image," and David proclaims in Psalm 139:13, "For You formed my inward parts; You covered me in my mother's womb." God affirms in Jeremiah 1:5 that "before I formed you in the womb I knew you." Clearly the Lord has an intimate, vested interest in people. So much so that He took on flesh and came to pay the penalty for our sins and restore us to a right relationship

with Him. Jesus loves people!

The Bible is about relationships. Loving the Lord Jesus Christ and being in a right relationship with Him are of paramount importance, and next to that is loving those around you (Matthew 22:36-40). When we show love for one another, it honors the Lord Jesus. We love others because He loves them and He loves us. As stewards of the many things God has entrusted to us, we should purposefully consider the people He has placed in our lives.

For a moment, reflect on the people in your life and know that there will be a day when you'll give an account to the Lord for how you looked after them (2 Corinthians 5:10). Did you care for them like He would? Are they better for having known you, worse, or unchanged? Being a good steward of people means caring for, encouraging, protecting, and even correcting when necessary.

What are some ways we can care for the people around us?

"Bear one another's burdens, and so fulfill
the law of Christ" (Galatians 6:2). Help
those around you become stronger in their
faith. Prioritize the people closest to you
and then work outward. What a blessing
it is to assist those under your influence to
better understand their gifting so they can
be effective in their work for the Lord.

article highlights

- Stewardship is most often associated with money and time.
- People are also a precious resource, and we're stewards of those whom Jesus has placed in our lives.
- Everyone has the opportunity to support, mentor, and love people.
- "As each one has received a gift, minister it to one another, as good stewards of the manifold grace of God" (1 Peter 4:10). Use your gifts to minister to the body of Christ.
- 3. "Sanctify the Lord God in your hearts, and always be ready to give a defense to everyone who asks you a reason for the hope that is in you, with meekness and fear" (1 Peter 3:15). Equip those around you with God's truth. Along with Acts & Facts and our daily devotional Days of Praise, ICR provides many resources to aide in this endeavor.
- 4. Finally, pray for them! "Confess your trespasses to one another, and pray for one another, that you may be healed" (James 5:16). Prayer is a vital resource in a believer's life. As part of your regular prayer time, pray for the Holy Spirit to work in the people and relationships in your life.

As a Christ follower and steward of the King, look at others as fellow servants and stewards of the resources He's entrusted to us so that together we can fulfill God's purposes. And if anything seems too difficult, we can always ask Him for help (James 1:5).

Remember, the stewardship of someone begins the moment they enter your life and only ends when the Lord decides. Con-

sider how ICR can help you steward the people in your life.

Mr. Kinman is Director of the Institute for Creation Research's Discovery Center for Science & Earth History.





Online Donations

Stocks and Securities

IRA Gifts Matchin

Matching Gift Programs CFC (Federal/Military Workers)

Gift Planning

• Charitable Gift Annuities

• Wills and Trusts

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

Visit ICR.org/donate 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.





Thanks for the excellent continued update ["Finding Biblical Clues to Design"] in the January/February 2022 Acts & Facts on your research focus for biological engineered systems. As a professional chemical engineer with great interest in



biology, I have resonated with this theoretical approach from the first time Dr. [Randy] Guliuzza introduced it several years ago.

The engineering framework is just as visible in basic chemistry and physics as biology. I am one of those strange people fascinated by just looking at the periodic table, seeing God's design and engineering principles screaming from the organization and relationships in the table.

— A. T.



In the summer of 2019, I flew to North Dakota to attend the Black Hills Creation Conference. Drs. [Tim] Clarey and [Randy] Guliuzza were the speakers, and I can't sing their praises enough. There were stunning field trips, and we enjoyed numerous talks. I had been fol-



lowing ICR since around 1983 when I read Dr. [Henry] Morris' *The Biblical Basis of Modern Science* while teaching middle school life and earth science in Tampa, Florida. **That book changed my life and was instrumental in leading me to the Lord.**

I have Dr. Clarey's book *Carved in Stone*, and it is beyond brilliant and beautiful. Dr.

Guliuzza's talks are always mesmerizing.

— T. S.



When I read in this month's magazine that you have a YouTube channel and a podcast, I went to check it out.

I watched the two-plus hour January 22, 2022, seminar "In His Image" that took place at the [ICR] Discovery Center and was truly blessed by the presentations done by the three scientists.

I shared the link with absolutely everyone in my e-mail address book, and hopefully some family members and friends will finally be ready to have ears to hear and eyes to see.

— L.



Good Company

Fifty years ago there were two factors which were responsible for my decision to attempt to follow Yeshua. **One was C. S. Lewis. The other was ICR.**

— Dr. S. K.



I am a retired pediatrician with a special interest in creation and genetics, and so have been a fan of Dr. [Jeffrey] Tomkins for a number of years, including his part in the video *DNA Battles* and his very useful research with the human/chimp genomes, etc. **However, I** believe that his one-page article ["The Creation Week: A Systems-Based Approach"] in the January/February issue of *Acts & Facts* is easily the best brief, concise summary of several of the most important issues in the current creation/evolution debate that I have read anywhere!

— A. H.



The mission and works of ICR...bring to mind Revelation 14:6-7. "And I saw another angel flying in midheaven, having an eternal gospel to preach to those who live on the earth, and to every nation and tribe and tongue and people; and he said with a loud voice, 'Fear God, and give Him glory, because the hour of His judgment has come; worship Him who made the heaven and the earth and sea and springs of waters."

— T. D.



The Creation Podcast — Episode 16

As a forensic pathologist and tissue geek myself, I really appreciate the work that Dr. [Brian] Thomas is doing. His book and thesis on *Ancient and Fossil Bone Collagen Remnants* are fascinating and compelling.



— J. N.

Have a comment? Email Editor@ICR.org or write to Editor, P. O. Box 59029, Dallas, TX 75229.

Unfortunately, ICR is unable to respond to all correspondence or accept unsolicited manuscripts, books, email attachments, or other materials.







Grand Canyon



Each year, millions of people travel to look down into a deep, wide hole in the western United States—a beautiful place called Grand Canyon. How did this colorful canyon form? The Bible's worldwide Flood gives us a good answer.

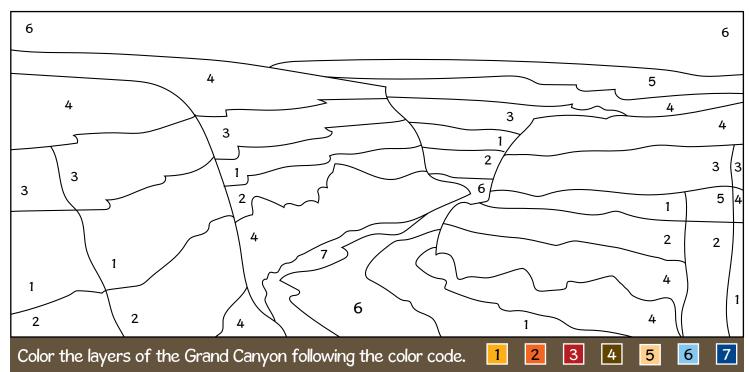
- Grand Canyon's rock layers look like stacks of flat, colorful pancakes. Each layer shows no signs that it was changed by wind and water before the next layer formed. That means all of the layers were put down quickly, one after the other.
- About 4,500 years ago, the global Flood dropped thick layers like these all over the world, including at Grand Canyon.
- Some scientists think the Colorado River slowly carved the canyon over millions of years. But the river would have had to flow uphill in some places to do this. That's not possible.
- ICR geologist Dr. Tim Clarey thinks lots of water from the end of Noah's Flood quickly carved the canyon as it drained west off the Colorado Plateau. This idea fits both the evidence and the Bible's timeline.

Word Search



Canyon Layers Water Recent Flood Rock Drained Carved Bible Geology

"And the _____ prevailed exceedingly on the earth, and all the high hills under the whole heaven were ." (Genesis 7:19)



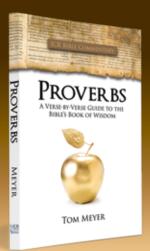
NEW!

PROVERBS

A VERSE-BY-VERSE GUIDE TO THE BIBLE'S **BOOK OF WISDOM**

\$12.99 • BPAVBVG

A word fitly spoken is like apples of gold in pictures of silver.



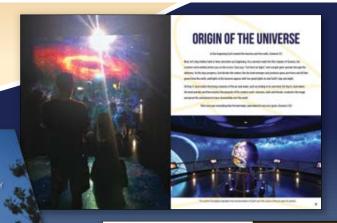
ICR DISCOVERY

In Proverbs: A Verse-by-Verse Guide to the Bible's Book of Wisdom, Tom Meyer combines research, memorization, and his higher education in the land of the Bible to reveal fascinating explanations, insights, and cultural comments on the book of Proverbs.

Tom has an M.A. in the Historical Geography of Israel and an M.A. in Middle East Culture and Religion from Jerusalem University College. His unique perspectives on Proverbs seen through the lens of Middle Eastern culture, geography, archaeology, and customs will enrich your understanding of the Bible's book of wisdom.



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



NEW!

ICR Discovery Center Museum Guide

\$9.99 • BDCMG

In the beginning God created the heavens and the earth. (Genesis 1:1)

Welcome to the ICR Discovery Center for Science & Earth History! Discover the truth about biblical creation as you examine the scientific and historical evidence of our world.

With vivid images and fascinating facts, this colorful book highlights the main exhibits and activities. The more science advances, the more evidence we find to support a recently created universe of such elaborate design that it points to the goodness, wisdom, and power of the Lord Jesus Christ.

This museum guide can be used as a reference, a souvenir, or a way to tour the Discovery Center from your own home. It certainly can't replace the in-person experience, but we hope you'll share it with friends and family, and refer to it again and again.

