

ACTS & FACTS



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JANUARY | FEBRUARY
2026

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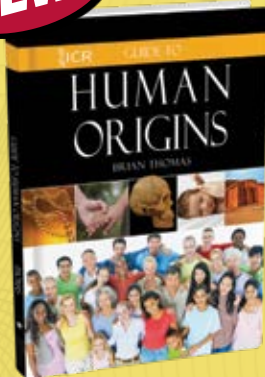
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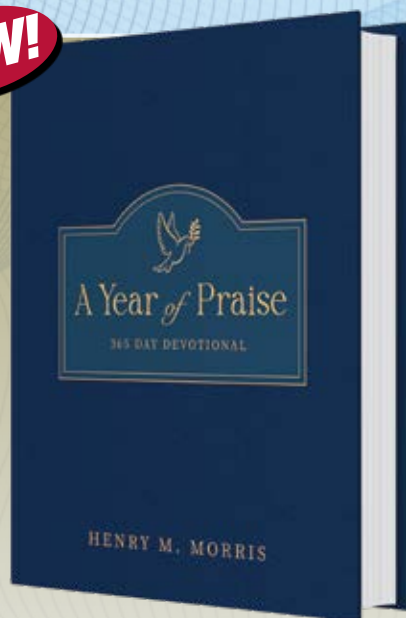
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NEW!**Guide to Human Origins****\$19.99** | 2292 | Hardcover**Brian Thomas, Ph.D.**

Where did humans come from? Evolution says we came from an ape-like ancestor and evolved into what we are now. Genesis says we were created in God's image and are unique from other creatures. They can't both be true, so which should we believe?

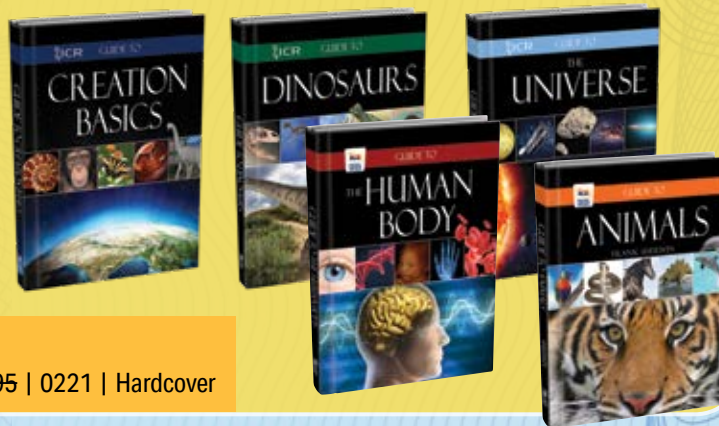
Guide to Human Origins takes a deep dive into this question, exploring human history over the ages, digging into evolutionary fossil fails, examining what DNA reveals about a human-chimp relationship, and more. In the end, we find our starting point in the One who made us and offers life through Himself both now and forever—our Creator Jesus Christ.

**NEW!****A Year of Praise****\$14.99** | 2288 | Hardcover**Henry M. Morris, Ph.D.**

We invite you to enrich your days with the devotional thoughts and spiritual insights of ICR founder Dr. Henry M. Morris. These pages contain the fruit of his study, wisdom, and interpretation of the Bible's most profound teachings—enough to last all year long!

GUIDE TO BOOKS

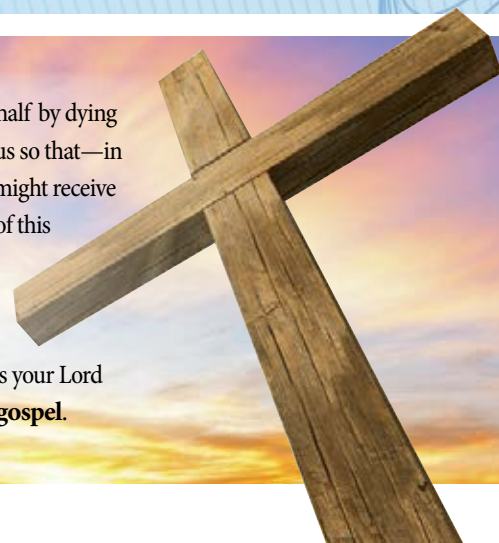
Covering crucial topics in an approachable manner, each colorful Guide To book provides scientific knowledge from a biblical perspective. These books are a great way to start your creation science journey or build upon your existing knowledge!

Guide to Creation Basics**\$19.99** | 0008 | Hardcover**Guide to Dinosaurs****\$19.99** | 0009 | Hardcover**Guide to the Universe****\$19.99** | 0216 | Hardcover**Guide to the Human Body****\$19.99** | 0010 | Hardcover**Guide to Animals****\$19.99** | 0007 | Hardcover**Pack: Guide To Books****Special pack price \$75.95** ~~\$99.95~~ | 0221 | Hardcover

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You are deeply loved by God! This certain truth is expressed in a Scripture that sums up the gospel of Jesus Christ: "For God so loved the world that He gave His only begotten Son, that whoever believes in Him should not perish but have everlasting life" (John 3:16). We all need Jesus as our Savior because we are all sinners and can't by our own efforts fulfill the requirements of God's justice. But Jesus Christ, our Creator, could satisfy the Father's holiness, so He

suffered the punishment for sin on our behalf by dying on the cross. Jesus was made to be sin for us so that—in the most remarkable exchange ever—we might receive the righteousness of God. We can be sure of this because Jesus rose again from the dead. What a gift of love! You can have the promise of everlasting life when you turn from your sin and believe in Jesus Christ as your Lord and Savior. To learn more, visit **ICR.org/gospel**.



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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)

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Front cover: Illustration of *Iguanodon*
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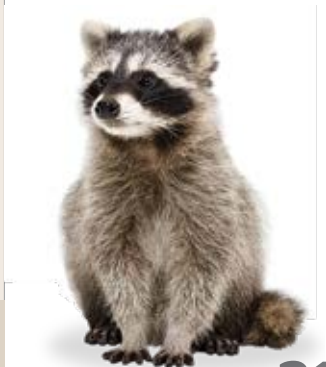
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AN INCREDIBLE YEAR OF ADVANCEMENT!

2025 YEAR IN REVIEW

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

The Institute for Creation Research had another incredible year advancing creation science in 2025! As a long-time supporter of ICR, I'm always thrilled to see the hand of the Lord Jesus empowering ICR's progress for creation science. Our founder, Dr. Henry M. Morris, regularly used the January *Acts & Facts* issue to recount ICR's major activities—and our blessings—from the prior year. It's my joy to continue that tradition. As always, all credit belongs to the Lord Jesus, who is head of His body and Lord of His church. Together we can thank Him for His abiding presence with ICR, demonstrated by the many good things He did.

I would love to recognize all of the ICR staff members and our dedicated army of volunteers as I walk through 2025. All of these dear people deeply love ICR, and each deserves a portion of this article highlighting their contributions. Nearly every department added new personnel with outstanding skills last year. The Lord continues to faithfully provide for ICR's staffing needs according to His riches in glory.



Dr. Hebert presents his keynote address

Research Mission

A major 2025 highlight was the entire science staff presenting our research at Missouri Baptist University during the Creation Research Society's annual conference. Dr. Hebert gave an outstanding keynote presentation on his longevity research. Attendees were updated on important findings with



Dr. Guliuzza at chapel in Corban University, Salem, Oregon

our cave fish research and Dr. Clarey's worldwide borehole analysis. Of significance, Dr. Jeffrey Tomkins expanded his groundbreaking findings of only 80%–85% genetic similarity between humans and chimpanzees—this was also confirmed by a conventional scientific study in April.

My research on a theory of biological design was selected for a keynote presentation at the annual Origins Conference hosted by the Creation Biology, Geology, and Theology Societies at Dayton College. I was excited to set the vision for what creation science research and education could look like over the next 100 years through insights provided by engineered biology and with increased cooperation amongst creationists.

ICR scientists were primary or contributing authors to five books and 10 technical articles. These included one co-authored by Dr. Brian Thomas in the non-creationist journal *Analytical Chemistry*, titled “Evidence for Endog-

enous Collagen in *Edmontosaurus* Fossil Bone.” ICR Publishing Group published our first science textbook: an outstanding young-earth creationist product titled *Earth Systems: An Introduction to Earth System Origins, Structures, and Processes* coauthored

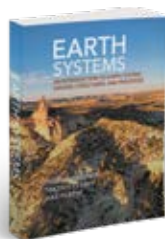
by Professor Tom Breuner and Drs. Tim Clarey and Jake Hebert. This text was adopted by Liberty University where about 1,000 students will use it each year.

Our fourth scientific expedition was the best yet for collecting samples of fossilized pollen. Additionally, multiple on-site interviews were filmed for new podcasts.

Research is clearly ICR's distinguishing characteristic. We strive to consider the big picture and make a big impact. Across the board it's advancing well. Our scientific research feeds many other ministries while being used by ICR's varied departments to educate several million people throughout the year.



ICR scientists collecting samples on the expedition



New ICR Earth Systems textbook

Creation-Science Education Events

ICR's Events team orchestrated 65 events, including seven conferences in major cities. These events educated over 17,000 attendees. This year's Dinosaur Dig Experience in Glendive, MT, was a hit (next year's is already in the works). Everyone loved our third Parks Across America Tour conducted in South Florida. The 2026 trip is planned for central California's parks (Yosemite, Sequoia,

Kings Canyon, Death Valley, and perhaps Monterey Bay).

Dr. Brian Thomas taught creation science at 10 schools in Fiji in February. Dr. Thomas, Mr. Dave Napier, and ICR's valuable volunteer, Mr. Paiboon Sithiyopasakul, partnered with Scripture Union Thailand to invest two weeks teaching creation science at Thai churches and Christian schools. The strong hunger for creationist education re-energizes us, and this trip opened doors for increased outreach in Southeast Asia.

On the educational front closer to home, Kids on Mission's reach continued to expand and now has a total of seven Foundations challenges. Enrollment is over 300, with kids participating from across the United States and from two foreign countries (Montenegro and Norway).

Our Media Outreach Is Exploding

The impact ICR has in reaching millions of people for our rather small size is astounding. In less than five years, ICR's YouTube subscriptions crossed the one-million-subscriber milestone. We also completed our 100th episode of *The Creation Podcast*. We're grateful that the Lord continues to bring in viewers—not just for number's sake, but to deepen their thinking about creation. For instance, *The Creation Podcast* episodes accrued 2.8 million views, equaling 86,000 hours of viewing. Our new 12-episode *Cre-*

ation Connection series had 500,000 views with 16,000 hours of watch time. The brief *Creation on Location* videos have accrued 100,000 views. Our creation-science YouTube Shorts amassed five million views with 32,000 hours of watch time. The ICR.org web page attracted over 1.6 million visitors. We currently have 331,000 followers on Pray.com, and on Facebook we have around 166,000 followers. Let's not forget our flagship program, Science, Scripture, and Salvation, on 186 radio stations.



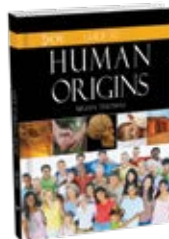
The ICR Discovery Center, Acts & Facts, Days of Praise, and Support Services

Our attendance at the Discovery Center was again right about 40,000 visitors. Significantly, about 60% are under 18 years. We added four new exhibits in key locations to exclusively present the gospel. A highly attractive lobby display educates visitors on ICR's longstanding successes in creation science and points guests toward our home ministry. Educational events like Dinosaur Days, Homeschool Days, and the Biblical Archeology Conference minister to thousands in the Dallas-Fort Worth area. Please plan on a visit if you're ever in Dallas—it will be time very well spent.

ICR's Communications department's expert production of seven issues of *Acts & Facts* magazine draws about 78,000 subscribers, and we ship over 180,000 quarterly *Days*

of Praise devotionals. Thank you for enabling ICR to make these freely available. In addition to the colossal project producing the *Earth Systems* textbook, we added 14 books. These included our

first creation-oriented, biblically consistent futuristic graphic novel *Project Artifact*, which we hope will be edifying to younger



people. A valuable addition for young and old is the highly visual *Guide to Human Origins* by Dr. Brian Thomas.

In addition, our support staff saved our ministry tens of thousands by using in-house personnel to construct five new office spaces. All computers were placed on an uninterrupted power supply, and office computers were upgraded with the latest operating systems and productivity programs.

Wrapping Up

Our beloved chief academic officer and resident attorney, Dr. Jim Johnson, was promoted to glory in July. He is deeply missed by all of us. He was also an integral part of our expanding planned giving initiatives. If estate planning interests you, please see ICR.giftlegacy.com. And finally, the good news Dr. Henry Morris used to always add is that "ICR finished the year in the black."

That covers many of the highlights for 2025—what a year it was! I hope you feel that your eternal investments through ICR are worthwhile. On behalf of the whole team, "Thank YOU!"

It's exciting to see the Lord Jesus empowering ICR's progress for creation science. Again, our deep thanks to the many *Acts & Facts* readers who regularly pray for ICR in your daily devotions. We need the Lord Jesus' help for scientific insights, creativity in our communications, and spiritual protection for the ICR family. We look forward to 2026 together with you. 🙏

Dr. Guliuzza is the president of the Institute for Creation Research. He earned his doctor of medicine from the University of Minnesota, his master of public health from Harvard University, and received an honorary doctor of divinity from Southern California Seminary. He 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.



Behind the scenes filming at ICR's studio

Sickle Cell Research Confirms TOBD Prediction Directed Genetic Adaptations

R A N D Y J . G U L I U Z Z A , P . E . , M . D .

Students of the creation-evolution debate know the changing explanations for how creatures originated and operate. Originally, the great minds of most pioneering scientists concluded that creatures were designed by God. Darwin's contradictory narrative claimed that nature cobbles organisms together by trial and error so that they look designed when they actually aren't. Now a body of research that's gained momentum for over two decades is pointing back to an engineering-based explanation. ICR and others use these findings to construct a theory of biological design (TOBD).

Yet, a passionate defender of theistic selectionism claimed at an ICR event that the TOBD's engineered approach to biology could never explain a classic example of "natural selection favoring" a totally random genetic mistake like sickle cell hemoglobin. When challenged that the genetic change perhaps wasn't a truly random genetic mistake but possibly a directed type of genetic change (by as yet a poorly understood innate mechanism), he dismissed this way of thinking as inconceivable. But not conceiving of directed genetic adaptations is years out of date.

We'll discuss two powerful genetic studies of human adaptive response to disease, one of which relates to that venerated icon of selectionists: the sickle cell trait and its relative protection against malaria. These studies allow us to put the basic assumptions of Darwinian selectionism and a TOBD to a head-to-head test. They confirm the basic premises of the TOBD and completely contradict evolutionary assumptions.

But far more importantly, they'll assist creationists and intelligent design advocates to move beyond simply seeing complex biological features toward experiencing the real benefits of thinking radically differently about biological observations. This means *not* mentally framing our

explanations as lighter, limited versions of Darwinism but within an engineering framework.

Sickle Cell Trait as a Nonrandom Genetic Change: Implications for Theoretical Assumptions

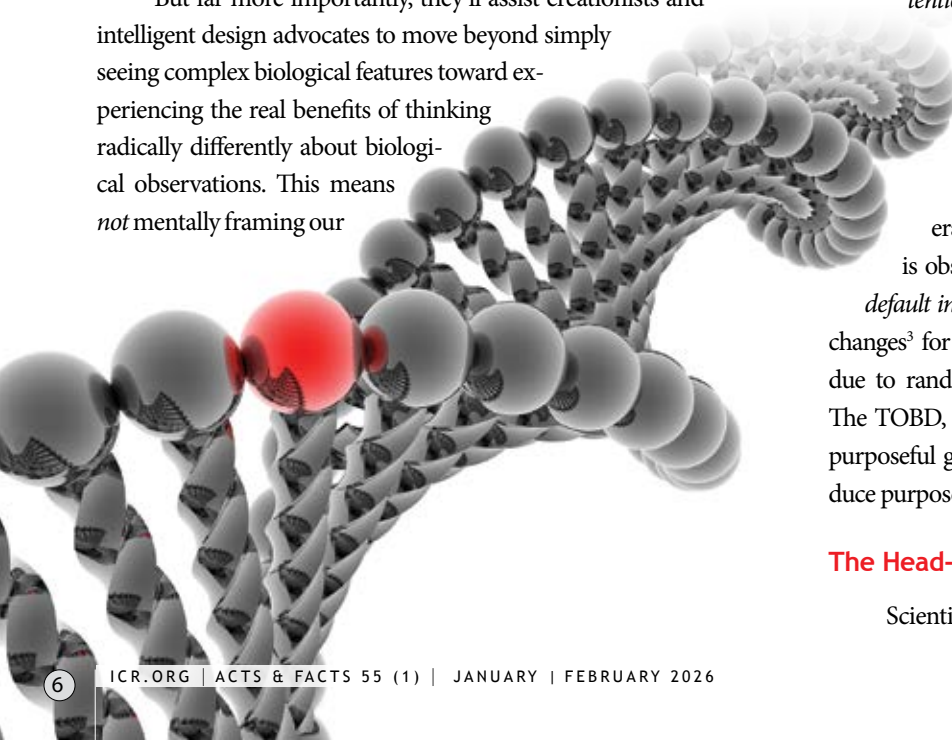
The American Association for the Advancement of Science provocatively titled the sickle-cell hemoglobin research: "Ground-breaking Study Uncovers First Evidence of Long-Term Directionality in the Origination of Human Mutation, Fundamentally Challenging Neo-Darwinism."¹ It identifies the fundamental assumption of selectionism (Neo-Darwinism) that this research disputed:

For the past century scientists have assumed that mutations occur by *accident* to the genome and that natural selection, or the survival of the fittest, favors beneficial *accidents*. The accumulation of these presumed genetic *accidents* under natural selection over the millennia leads in turn to adaptations, from the hawk's sharp eye to the human cardiovascular system.¹ (emphasis added)

In contrast, the TOBD's basic premises, assumptions, and predictions are essentially the opposite of selectionists.² In short, a TOBD is *intentionalistic*. The theory doesn't concoct ways to explain away the purposeful biological activity observed in countless areas. Rather, goal-directed activity on an organism-wide basis is predicted at every research level. Next, a TOBD is necessarily *internalistic*. Identifiable control systems within an organism are the true cause for all operations, including adaptations. When an organism's trait(s) is observed to solve an environmental challenge, the TOBD's *default interpretation* is that the underlying genetic (or epigenetic) changes³ for the successful trait(s) were purposeful or directed—not due to random mutations—unless evidence confirms randomness. The TOBD, therefore, predicts multiple innate mechanisms facilitate purposeful genetic changes (or post-genetic modifications) that produce purposefully adaptive anatomic or physiological traits.

The Head-to-Head Test of Basic Assumptions

Scientists from Israel and Ghana have developed a new ultra-



accurate detection method to determine if the probability of genetic changes associated with protective outcomes in humans for certain diseases indicates randomness or internally directed mechanisms.

Two studies, a 2022⁴ and 2025⁵ study, found the genetic changes protective for malaria and African sleeping sickness were not random after all but directed. These researchers first observe that previous research had not measured the likelihood of adaptive genetic change in people regularly exposed to disease versus in those not routinely exposed.

Given that previous studies had not measured the probabilities of target individual mutational events in the DNA, could it be that there actually is a relationship between the likelihood of a particular mutational event and its specific value to the organism, which could not have been systematically and effectively uncovered with previous methods? It is tempting to answer with a resounding “no” to this question, given that there could hardly be a more fundamental assumption in evolutionary theory that data could violate.⁵

Professor Adi Livnat of Haifa University, Israel, explained the shocking results: “For over a century, the leading theory of evolution has been based on random mutations. The results show that the HbS [sickle cell] mutation is not generated at random but instead originates preferentially in the gene and in the population where it is of adaptive significance.”¹ The news report expounded on the significance, saying,

Unlike other findings on mutation origination, this mutation-specific response to a specific environmental pressure cannot be explained by traditional theories. . . .

The HbS mutation originated *de novo* not only much faster than expected from random mutation, but also much faster in the population (in sub-Saharan Africans as opposed to Europeans) and in the gene (in the beta-globin as opposed to the control delta-globin gene) where it is of adaptive significance. These results upend the traditional example of random mutation and natural selection.¹

The follow-on study on the adaptive genetic change to the parasite causing African sleeping sickness also found that “the human APOL1 gene arises not randomly but more frequently where it is needed to prevent disease, fundamentally challenging the notion that evolution is driven by random mutations.”⁶ Livnat added, “The new findings challenge the notion of random mutation fundamentally.”⁶

Internal Control Systems Regulate Genetic Changes

How are genetic changes preferentially directed toward adaptive outcomes? Discoveries from multiple studies point to extreme regulation of the strength of the interaction between genes.⁵ This includes the movement of transposable elements and gene-fusions (each pair of genes has its own fusion probability). Fusions and other changes are highly influenced by regulated information in the genome such as promoters, enhancers, transcription factors, and epigenetic markers.


Livnat characterized these regulatory system elements as “a previously unrecognized internal force [that] operates inside the organism, putting together genetic information that has accumulated over generations in useful ways”⁶—as the TOBD assumes.

Infusions of Serendipity and Mysticism to the Rescue

Evolutionary biologists know that when their findings contradict Darwinian selectionism and clearly point to purposeful outcomes, they must come up with an atheistic alternate explanation to maintain their evolutionist bona fides and stave off excommunication. Thus, Livnat developed a theory he specifically identifies as “parsimonious” (meaning succinctly tying many individual observations into a single explanation).⁷ The press release summarizes Livnat’s theory:

Genes *that evolved* to interact tightly are more likely to be fused; single-letter RNA changes *that evolved* to occur repeatedly across generations via regulatory phenomena are more likely to be “hardwired” as point mutations into the DNA; genes *that evolved* to interact in incipient networks, each under its own regulation, are more likely to be invaded by the same transposable element that later becomes a master-switch of the network, streamlining regulation, *and so on*.¹ (emphasis added)

That seems like a lot of serendipity to explain that creatures have internal regulating mechanisms. Livnat invented a concept called natural simplification as life’s indispensable mystical power to coordinate all the materialistic kismet he needs.^{5,7} Natural simplification carries all of the transcendent personifications of Darwin’s natural selection.

The bottom line is that none of these researchers’ findings fit with Darwinian selectionism, but they align perfectly with the internalistic and intentionalistic interpretative framework of a TOBD. The most parsimonious explanation for why creatures look engineered at every research level is that they are engineered. At ICR, we gratefully give the credit to the Lord Jesus Christ for these creatures that were “created by Him and for Him” (Colossians 1:16). 

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Dr. Guliuzza is the president of the Institute for Creation Research. He earned his doctor of medicine from the University of Minnesota, his master of public health from Harvard University, and received an honorary doctor of divinity from Southern California Seminary. He 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.

JANUARY 11

Glenn Heights, TX
Bear Creek Baptist Church

Creation Sunday

(B. Thomas)

ICR.org/GlennHeightsTX or 214.615.8333



FEBRUARY 20-21

Allen, TX
Cottonwood Creek Church

Stand to Reason Reality Student Conference

(Booth only)

Registration required
RealityApologetics.com
or 214.615.8325



JANUARY 14-15

Panama City, FL
First Baptist Church

(F. Sherwin)

ICR.org/PanamaCityFL
or 214.615.8325

FEBRUARY 28

Rocklin, CA

Genesis Apologetics G1 Conference

(R. Guliuzza)

Registration required

ICR.org/RocklinCA or 844.743.6374

FEBRUARY 7-8

Piggott, AR
Shady Grove Missionary Baptist Church

(T. Clarey)

ICR.org/PiggottAR
or 214.615.8333

FEBRUARY 28

Kansas City, KS

Colonial Presbyterian Church

Midwest Christian College Expo

(E. Steele)

Registration required

ICR.org/OverlandParkKS or 214.615.8339

SAVE THE DATE

JUNE 16-18

Grand Canyon, AZ
Landmark Events Grand Canyon Raft Adventure

Space is limited—register today!
(T. Clarey)

LandmarkEvents.org/grandcanyon
or 210.885.9351



JULY 22-25

Glendive, MT
Dinosaur Dig Experience

Registration required
(T. Clarey)

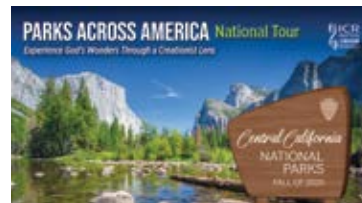
ICR.org/DinoDig



FALL 2026 (dates coming soon!)

Parks Across America Tour: Central California

Registration details coming soon!
ICR.org/Parks-Across-America-Tour
or 214.615.8325



Please check [ICR.org/events](https://www.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.



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1830 Royal Lane, Dallas, TX 75229

For more information visit ICRDiscoveryCenter.org/Special-Events, email discover@icr.org, or call 800.743.6374.

FEBRUARY 28



Serious Science Talks

These programs are designed specifically for college students, faculty, and staff who are ready to dive deeper into the world of science and faith. Attendees will enjoy an in-depth, interactive science presentation, a free lunch, and complimentary access to the exhibit hall and a planetarium show.

Registration is available on our website.

MARCH 17-21



Dinosaur Week

Mark your calendar for spring break—Dinosaur Week is making a roaring return! Enjoy an unforgettable week filled with full-scale fossil exhibits, hands-on activities, fascinating presentations, and special discounts for everyone!

APRIL 23-24



Homeschool Days

Dive into the study of God's amazing creatures at this special zoology-themed Homeschool Days event! Experience engaging presentations about God's incredible design in the animal kingdom, hands-on activities, and discounts for the entire family.

DAY4 ASTRONOMY MEETING

Third Saturday of each month at 5:00 p.m.

Grow your faith in Christ while learning astronomy from a biblical worldview.

Free event, no registration is needed.



DINOSAUR RIDGE

Last Stand of the Dinosaurs

article highlights

- Hundreds of preserved dinosaur tracks make Dinosaur Ridge a must-see for paleontologists and the public alike.
- Rippled and cross-bedded sandstone indicate the sediments here were deposited by water.
- The lack of erosion at the contact between the Dakota Sandstone and the Morrison Formation is best explained by continuous deposition of one layer atop the other, with very little time in between.
- The preserved footprints and the dinosaur bone fossils found here could only have been preserved by rapid, catastrophic burial.
- The Genesis Flood provides the ideal conditions to form the remarkable Dinosaur Ridge rocks, tracks, and fossils.



Dinosaur Ridge is an official National Natural Landmark

Image credit: Tim Clarey

Paleontologists have ranked Dinosaur Ridge as the top dinosaur track site in North America.¹ Run by the nonprofit group Friends of Dinosaur Ridge, it was designated by the National Park Service as a National Natural Landmark.² Located just 20 minutes west of Denver and just north of the town of Morrison, Colorado, it consists of a 1.1-mile-long rock outcrop that showcases strata from the lower Dakota Group and its underlying Morrison Formation. Over 300 individual fossil prints of dinosaurs and crocodiles are visible in the Dakota alone, with many darkened for easy visibility.

Approximately 250,000 visitors take the self-guided walking tour, ride bikes, or take a bus tour each year.² But visitors are only exposed to the conventional, old-earth explanation for this site. Few likely realize that this topographic ridge is a stunning reminder of the judgement of the global Flood.

Dr. Clarey in front of numerous dinosaur tracks at Dinosaur Ridge

Image credit: Clint Loveness



Geology of Dinosaur Ridge

Dinosaur Ridge exposes sedimentary units from what uniformitarian geologists call the Cretaceous and Jurassic Systems. Both rock systems are part of the dinosaur fossil-bearing strata found across the globe. ICR geologists place them in the upper part of the Zuni Megasequence. This set of rock layers reflects the time during the Flood year when the water was approaching its highest level.³

The lower strata (Jurassic) are part of the famous Morrison Formation. This unit was named for the nearby town of Morrison, CO. In 1877, Arthur Lakes and Henry Beckwith found the very first dinosaur bones within the Morrison exposures on the west side of the ridge.⁴ These bones represented *Stegosaurus*, *Apatosaurus*, and *Diplodocus* specimens.⁴

Conventional scientists think a series of rivers deposited the Morrison over many thousands of years or more. They believe the overlying Cretaceous layer, in some places called the Dakota Sandstone, was deposited over a vast amount of time by a shifting shoreline or beach environment with some influence from rivers along the coast.⁴ But do beaches and rivers preserve footprints and create fossil bones today? Not at all.

Footprints in Stone

Most of the dinosaur footprints along Dinosaur Ridge were made by *Iguanodon*-type dinosaurs. These animals walked on all fours, making footprints from eight to 18 inches long.⁵ But there are also many other prints found along the trail, including those belonging to crocodiles. Even bird tracks are preserved just north of the site.⁵



In addition, the dinosaur footprints at Dinosaur Ridge are part of a massive line of tracks called the Dinosaur Freeway.⁵ These tracks extend south from Dinosaur Ridge hundreds of miles along the Colorado Front Range to parts of the high plains of Oklahoma and New Mexico.⁵ What could have caused these tracks to be preserved over such a vast region?

A Better Explanation: The Global Flood

Four observations testify that the global Flood best explains both the rocks and the fossils at Dinosaur Ridge.

1. Evidence of water deposition

In outcrops and in well cores, the Dakota is full of ripples and cross-bedded sands.^{4,6} These sedimentary structures indicate water flow. Cross-bedded sands form as ripples or dunes migrate during energetic water flow. Moving water shoves sand grains up the back of the ripple. The sand then falls down the lee side where the grains stop, forming a bed-form that appears to cut across the bedding.



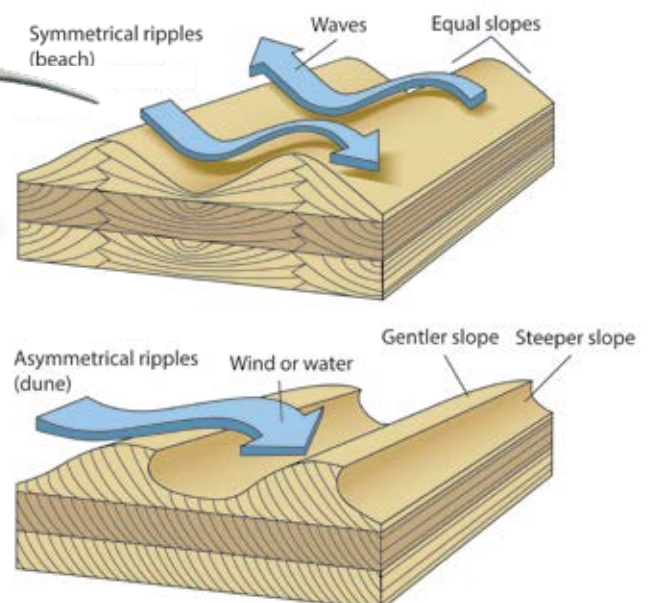
Rippled sandstone in Cretaceous rocks at Dinosaur Ridge

Image credit: Tim Clarey



Rippled beds in Dakota Group sandstone show evidence of flowing water

Image credit: Tim Clarey



Two types of ripples and how they form



ICR Events Director Joel Kautt pointing to crossbeds in the Dakota sands

Image credit: Tim Clarey

Fossils found in the Dakota also reveal water's influence. Many burrows and trails of worms and other invertebrates like crustaceans are found in the sandy sediment.⁴ And many of the crocodile tracks indicate they were swimming in shallow water, having left only scratches in the substrate.⁵



Worm tracks and trails

Image credit: Tim Clarey

2. Rapid deposition of layers

Not only does the science point to a watery deposition, but several observations demonstrate that the Dakota Group was deposited right after the Morrison. First, in order to preserve tracks, prints, and ripples, they must be buried fast so they are not destroyed. Footprints on beaches or in rivers do not last long today.

The Morrison also contains downward bulges from dinosaurs stepping into freshly deposited sedimentary layers. These demonstrate that the sediment was still soft when the dinosaurs stepped upon it, compressing several individual beds at once. The bulges are most likely from large, long-necked dinosaurs like *Apatosaurus*, whose bones were found just a short distance away in the quarries.



Footprint bulges in the Morrison Formation at Dinosaur Ridge

Image credit: Tim Clarey

Conventional geologists believe that there is a gap of 30–40 million years in between the deposition of the Morrison and the overlying Dakota Group. But the contact between the two shows little evidence of erosion and missing time, being nearly flat along Dinosaur Ridge and beyond. Just one million years of erosion should have marred the contact with gullies, channels, and canyons cut into the Morrison. Flat, planar erosion does not occur today. The Morrison and Dakota units were most likely deposited one atop the other in a matter of days or hours. Thus, the pancake-like deposition is again best explained by the global Flood. Massive tsunami waves washing back and forth across the continent could both deposit and erode vast planar surfaces.



Bones at Dinosaur Ridge

Image credit: Tim Clarey

3. The extent of the sedimentary units

The 200- to 300-foot-thick Dakota Sandstone extends from near the Arctic Circle in Canada to northeast New Mexico and Oklahoma and from Minnesota and Iowa to west of the Continental Divide.⁶ How many shorelines today extend across such a vast, wide region of the continent? Zero. Even a large seaway migrating across North America for eons, as envisioned by conventional geologists, would not result in such a relatively uniform blanket of sand.



Extent of Dakota Sandstone

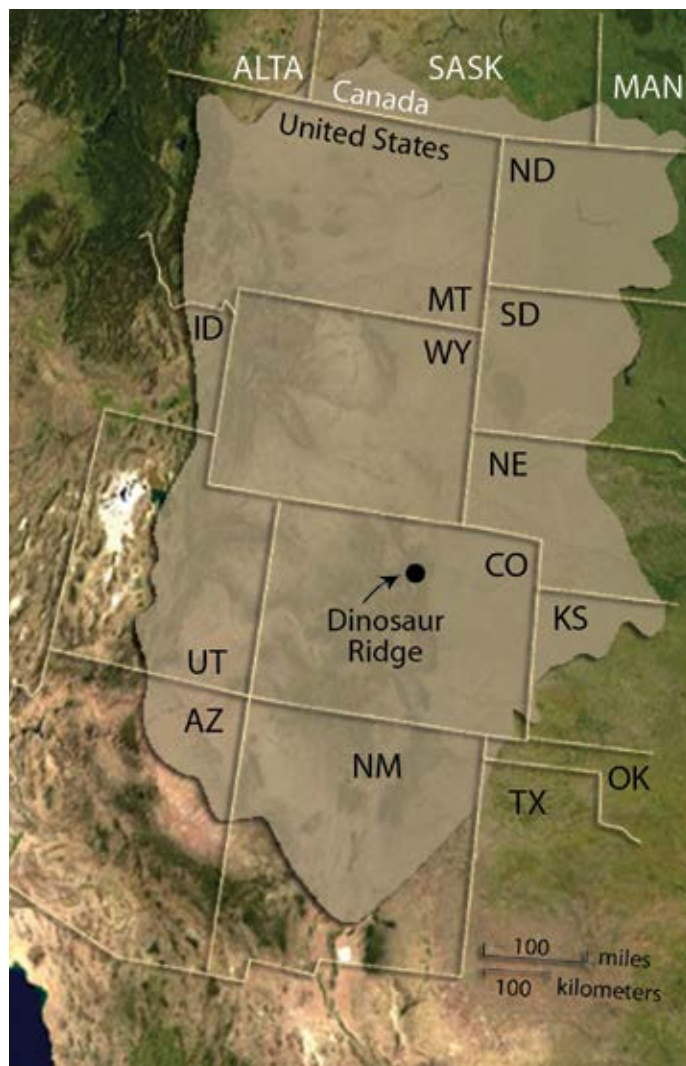
Image credit: Melissa Marquez

Similarly, the 300-foot-thick Morrison Formation extends from Canada down to southern New Mexico and from central Utah to Nebraska and Kansas. Layers deposited by rivers should be dominated by narrow sandy channels mixed within mostly muddy floodplains. Instead, we see individually deposited, continuous layers in the same order and in the same relative thicknesses across this entire, multi-state region. Both the Dakota and the Morrison are best explained by massive water waves that pushed across the continent, leaving mostly continuous beds.

4. Rapid, catastrophic burial

The fossils found at the various quarries by the nineteenth-century dinosaur hunters on the south and west side of Dinosaur Ridge testify to the catastrophic conditions needed to bury these animals. And there are also dinosaur bone beds in the Morrison at hundreds of sites throughout Colorado, Wyoming, and Utah, including Dinosaur National Monument. Bone beds like these do not form in such numbers or across such a vast region anywhere today. They need the special conditions provided by the global Flood.

The reason so many dinosaurs and other animals left their footprints here is because they likely lived near here in the pre-Flood world. ICR researchers have suggested a long peninsula of lowlands existed where dinosaurs lived, which is now found near the center of the continent.³ Before the dinosaurs were completely swept away by floodwaters, many likely tried to find any remaining land, or at least the shallowest water, where they could still stand and walk. This temporary respite created the Dinosaur Freeway as many dinosaurs congregated there to survive. Eventually, though, they were all swept away.



Extent of Morrison Formation

Conclusion

The remarkable sets of trackways exposed at Dinosaur Ridge could only have been preserved by rapid burial. Beaches and rivers do not preserve vast bone beds, ripples, or footprints. And the massive extent of the sand and mud layers that encapsulate the fossils are better explained by colossal waves washing across the continent than the conventional story of rivers and/or beaches slowly spreading across the continent. The global Flood, detailed in the book of Genesis, provides the perfect conditions to explain Dinosaur Ridge. 🌊

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Novel Orphan Genes Aid in Regulated Adaptation

J E F F R E Y P . T O M K I N S , P H . D .

article highlights

- Orphan genes are unique to creature kinds, are widespread among all tested organisms, and display no evolutionary ancestry.
- These complex genes can make up almost a third of some creatures' genomes.
- Evolutionists struggle to explain orphan gene origins, claiming they just somehow evolved rapidly across numerous creatures.
- In many studies, orphan genes have been found to play key functional roles in adaptive responses.
- The unique orphan gene code was designed by our brilliant Creator, Christ Jesus.

Orphan genes (OGs) are genes that are unique to a specific kind of creature. This is especially significant when creatures that are considered evolutionary ancestors lack these genes. In other words, OGs have no discernable evolutionary ancestry but appear suddenly without any evolutionary precursors—debunking the story of gene evolution and biological evolution in general. And even more interesting is that many OGs play significant roles in environmental adaptation. In laying out this paradigm, I'll begin with some definitions and will go into conventional speculation on OG origins and why these explanations are unsatisfactory. I'll then delve into some of their known functions (specifically in adaptation) and finish with some important creationist conclusions.

Definition and Significance of OGs

OGs are genes that lack detectable similar DNA sequences, called homologs, outside of a given type of creature or broader taxonomic group. That is, the gene (or its protein product) has no clear similarity in its DNA sequence to genes in more distantly related or-

Yeast colonies in a petri dish

ganisms.^{1,2} Other terms for OGs include taxonomically restricted genes or lineage-specific genes.³

OGs were first elucidated in the context of the brewer's yeast (*Saccharomyces cerevisiae*) genome sequencing project. It was shown that approximately one-third of the genes fell into this category compared to other microorganisms.¹ Then OGs began to be discovered in bacterial genomes where the term ORFans was used. This is now the standard term for OGs amongst microbial researchers.

Following these initial discoveries along with the boom in genome sequencing, it became apparent that the OG phenomenon is prevalent across the spectrum of life, including multicellular creatures. In many such genome analyses, OGs make up 10%–30% of genes in any given genome. While many creatures contain similar genes for daily metabolism and other common traits, this huge amount of OG novelty is a big problem for the conventional model of so-called gene evolution.^{1,2}

OGs are also found at different levels in the spectrum of life. In a simplified and general model, there appear to be three different classes of OGs, as illustrated in a recent review paper:³

- 1) OGs that are shared across a broad group of eukaryotes such as vertebrates but are not found in invertebrates. These are referred to by conventional scientists as evolutionary conserved genes.
- 2) OGs that are only shared within a more defined broad group of organisms such as teleost fishes but are not found in non-teleost fishes.
- 3) OGs that are specific to a certain interbreeding taxonomic group—often called species-specific OGs.

This article will focus on this third category of orphan genes since they are the most evolution-defying.

A grouper is an example of a teleost fish



Conventional Speculation on Mechanisms of Origin

Because evolutionists do not ascribe the design and complexity of the genome to the Creator God, they have come up with a wide variety of speculative mechanisms for the origin of OGs. The most popular idea is called *de novo* gene birth, where they claim genes somehow arise from noncoding regions of the genome such as areas between genes (intergenic segments) or noncoding regions within genes (introns).^{1,2} This idea is absolutely untenable since genes are very complex, containing promoters, regulatory elements, open reading frames (if coding for proteins), and many different types of embedded signal sequences to regulate transcription, cellular transport of the RNA product, and translation (protein production).⁴ To think that such information-rich code could magically pop out of so-called random DNA sequences borders on absurdity. And *de novo* gene birth has *never* been scientifically documented. And because the process of this type of “gene birth” has never been observed in the gradual development of a new gene, evolutionists claim that it happens rapidly.

Another speculative mechanism is that OGs diverge from existing genes, where a gene is duplicated and then somehow becomes so mutated in its sequence through copying errors or other damage that the duplicated gene appears “orphanish.”^{1,2} The problem with this idea is that random genetic errors, especially on a massive scale, can never create new and useful information. Furthermore, genetic corruption on the scale required to radically alter a gene are not allowed to occur in the genome due to the effective application of built-in DNA surveillance and error-correction systems that are constantly at work to protect the chromosomes from such dangerous activity.

Yet another proposed mechanism is the precise rearrangement of preexisting genes that actually occurs in a single step during chromosomal recombination during meiosis. This can include gene fusion, gene fission, exon shuffling, and other rearrangements.^{1,2} These structural changes in the genome can produce novel combinations and new reading frames. The problem with this idea for evolutionists is that genetic recombination is a highly regulated, nonrandom process, and these sorts of functional structural variants are part of built-in design features to create adaptive variability. If genetic recombination were not strictly controlled, organisms would soon die.

Another proposed mechanism for creating OGs involves transposable element activity, which is also a highly regulated process. I will cover the topic of regulated structural genomic changes in an upcoming article.

There is actually one type of mechanism that does introduce new genes into an organism called horizontal gene transfer (HGT), but there are important caveats to this. The problem for the evolutionist is that this is a very rare occurrence in multicellular eukaryotes but is relatively common among bacteria. When HGT does occur in multicellular creatures, it does not lead to new functional genes. For example, among about 66% of insects, the bacterial endosymbiont *Wolbachia* has had fragments of its genome integrated into the host genome, but the genes and chromosomal segments involved are typically genomic relics and nonfunctional.⁵ In vertebrates, HGT has not been empirically proven.

Roles in Adaptation

At present, the roles of hundreds of orphan genes have been characterized, but this is just a tiny fraction of the total.^{6,2} It is known that many of them code for proteins that bind to well-known standard proteins such as transcription factors or cell receptors. Some OG proteins are predator-repelling toxins, some are involved in reproduction, and many are integrated into metabolic and regulatory networks. And some OGs confer resistance to stress and other adaptive traits, which is the topic that will be addressed next.

Because they represent genetic novelty, OGs can be sources of novel functions unique to specific kinds of organisms and their particular needs. Thus, they can underlie adaptation to specific conditions and changing environments. They can also confer specializations in morphology, behavior, physiology, and ecology.² In fact, current data indicate that OGs can provide unique tools for responding to a diversity of abiotic stresses (e.g., drought, salinity, temperature extremes) that may be specific to the organism's habitats.²

Cowpea

One study was done in cowpeas (*Vigna unguiculata*), a domesticated legume, using a breed that was adapted to dry conditions and

a breed adapted to wet and humid conditions.⁷ This study found that drought stress in cowpea roots can induce OGs more than common plant genes, such as those involved in metabolism, growth, and development. In fact, they discovered 578 different OGs were induced by drought, of which 73.2% were predicted to be long noncoding RNAs.⁸

The researchers then chose one OG that was strongly induced by stress and modified it to be expressed at even higher levels. When they put the modified gene back into the cowpea genome, they found that overexpressing the OG improved drought tolerance even more. And it is worth mentioning that this study is just one of many plant studies linking OGs to adaptive traits in insect pest resistance, pathogen resistance (bacterial and fungal), carbon and nitrogen allocation, root biomass modulation, drought resistance, biosynthesis of adaptive proteins and metabolites, immunity, and cell death regulation.⁹

Water Flea

Daphnia pulex is a freshwater crustacean vital to aquatic ponds and lakes. It has a small translucent body (~0.2 and 3.0 mm long) that makes its internal organs, including its heart and digestive tract, easily visible under a microscope. These traits have established it as a key model organism for research in ecology and ecotoxicology, where scientists observe its physiological responses to environmental changes. And as a filter feeder, it plays a critical role in the food web by consuming bacteria, algae, and detritus. It also serves as a key food source for other creatures like fish and other aquatic invertebrates.



Cowpea seedlings



Daphnia water flea

For the purpose of this article, *Daphnia* exhibit extreme adaptive responses to things like crowding, temperature changes, and drought. In harsh conditions, *Daphnia* produce highly resilient, dormant eggs that can survive extreme environments and then later hatch when circumstances improve. In addition, it can rapidly reproduce asexually under favorable conditions and then switch to sexual reproduction when environmental stressors like crowding or temperature changes occur. When the *Daphnia* genome was sequenced, it was discovered that over 36% of its 30,907 genes were unique to *Daphnia* and not found in any other creature.¹⁰ This is highly significant because a large portion of these genes were found to change in their expression patterns with specific environmental changes. This led the researchers to call these OGs eco-responsive.



Leafcutter ant

Ants and Other Insects

One large study across 30 arthropod genomes (28 insects and two non-insect out-groups) was published with a special focus on complete sequences of seven different ant genomes. The data showed more OGs being found in Hymenoptera (ants and bees) than in Dip-tera (flies).¹¹ The main difference between these two groups (orders) is that ants and bees are social insects living in large, highly structured colonies, while flies are solitary creatures. More unique and highly specified genetic code is needed for the complex social behavior and different caste anatomies that are required among ants and bees. Re-

markably, many orphan genes were unique and unshared even between individual species of ants and bees.

For example, the leafcutter ant (*A. echinator*) genome contained a whopping 34,821 genes with 12,151 not found in any other insect or ant species. Not only does the leafcutter ant have a highly complex social structure, but it farms a specific fungus from the leaves its workers cut/harvest in a large fungal garden. The complexity of this ant's behavior and the specialized digestive system needed to farm and eat fungus require a large set of specialized genes. Averaged over all 30 included insect and arthropod out-group species, approximately 13% of all protein-coding genes lack a similar counterpart in any other species. These numbers fall within the expected range of 10%–30% for species-specific OGs in other studies.

Conclusion

Orphan genes represent an exciting frontier in biology but are a huge problem for the idea of gene evolution since OGs have no evolutionary precursor from which they could have evolved. That's why evolutionists use the magic phrase: "they evolved rapidly," meaning they popped up so fast no one saw it coming. Clearly, OGs and their complex code that cannot be explained by random genetic errors are one of the key biological evidences against biological evolution and the spectacularly failing neo-Darwinian paradigm.¹²

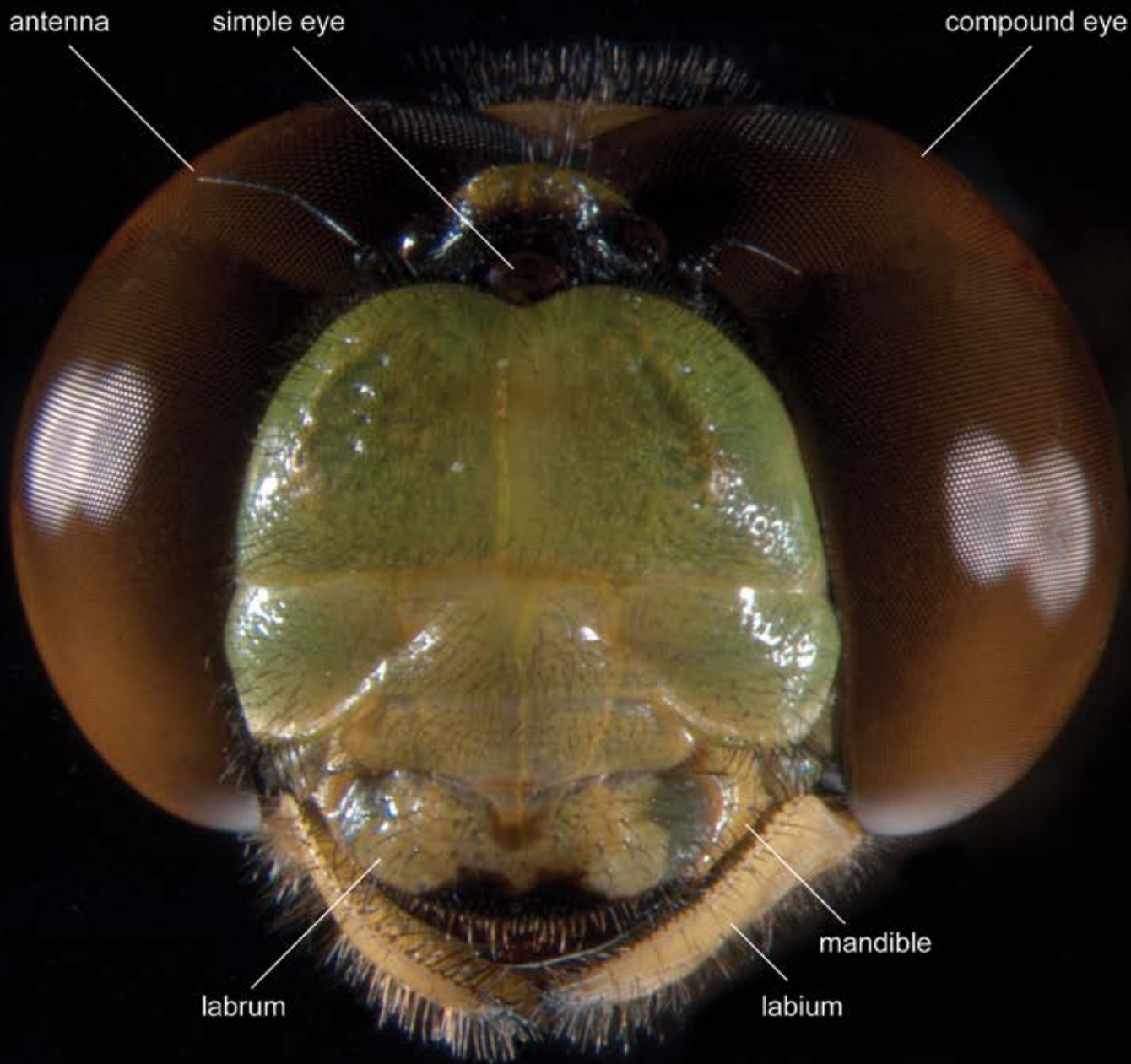
Furthermore, these OGs play very specific adaptive roles, especially for species-specific environmental challenges, morphological novelties, and reproductive functions. And these genes do not operate independently but are precisely integrated into complex gene networks like a gear in a car transmission. All of this together shows that this unique OG code was engineered by the all-powerful and all-wise Creator, the Lord Jesus Christ. 🙏

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*“The eyes of all look expectantly to you, and You give them their food in due season.
You open Your hand and satisfy the desire of every living thing.”*

—— P S A L M 1 4 5 : 1 5 – 1 6 ——

Stereomicroscope image showing a frontal view of the head of a dragonfly. A pair of large compound eyes enable this aerial predator to pursue and capture other insects in midair.

Image credit: Michael J. Boyle; The William B. Dean, MD Imaging Center of the Institute for Creation Research.

Longevity Before the Flood

When gazing through a telescope, we see beauty so vast even the most powerful optics can't see how far it spans. Trillions of stars are arranged in perfect order, each declaring the matchless glory of its Creator, the Lord Jesus. When we look through a microscope, we glimpse that vast beauty in reverse. Molecules, patterns, and structures are so intricate that the most precise man-made optic won't reveal the tiniest details that convey the unmistakable mark of expert engineering.

At the Institute for Creation Research, every study and discovery, from galaxies to genetics, testifies to the truth that the Bible means exactly what it says. That conviction drives ICR physicist Dr. Jake Hebert and his fascinating longevity research, which supports the clear record of Genesis as literal history and challenges the claim that its early chapters are poetic or symbolic.

Genesis plainly records that the patriarchs lived extraordinarily long lives: "So all the days that Adam lived were nine hundred and thirty years; and he died" (5:5); "So all the days of Methuselah were nine hundred and sixty-nine years; and he died" (5:27); "Noah was six hundred years old when the floodwaters were on the earth" (7:6). These are not metaphorical or exaggerated

ages but inspired historical records.

In light of such extended human lifespans, Dr. Hebert's research explores what the lives of pre-Flood creatures may have been like. According to published conventional science literature, fossil evidence shows that many pre-Flood creatures like giant clams, massive oysters, and enormous mammals once flourished in abundance. Large animals today typically have longer lifespans than small animals, so it is likely these pre-Flood animals, like pre-Flood humans, lived longer than their contemporary counterparts. Some animals like sharks and crocodiles were much larger than their modern-day descendants. This aligns beautifully with Genesis' description of a creation that was "very good" (Genesis 1:31), filled with life, strength, and longevity.

There is another biological pattern that matches Scripture's account. In the animal kingdom, long-lived creatures tend to developmentally mature more slowly (see page 20). The Bible records that the earliest fatherhood occurred at age 65 (Genesis 5:15). This is rather old to have children compared to today. ICR recently hosted a visiting church staff, and Dr. Hebert pointed out to our visitors that

Sarah was still strikingly beautiful at 90 when Abraham called her his sister (Genesis 20:2). The looks on our visitors' faces were priceless, since this had never occurred to many of them. It seems humans were aging much slower then as well. These details make perfect sense in a world where humans lived for centuries, as the Bible describes.

Dr. Hebert's longevity research strengthens confidence in the accuracy of Genesis and confirms Scripture's history of Christ's creation. The Lord Jesus Himself affirms this when He said, "For if you believed Moses, you would believe Me; for he wrote about Me" (John 5:46).

ICR's mission is to defend the authority of Scripture. But this vital work depends on the faithful financial partnership of believers like you. I ask for your help in making work like Dr. Hebert's possible. We are so grateful to our existing ICR supporters and to those who will make their first gift and join ICR's mission today. The challenge is great, but the Lord Jesus, our Creator and Redeemer, is greater. He multiplies our efforts far beyond what we could achieve alone.

Mr. Gadberry is the director of development and donor relations at the Institute for Creation Research.



Deinosuchus hatcheri, Natural History Museum of Utah. Estimates indicate this extinct crocodile could grow to over 40 feet in length and weigh over 8,000 pounds.

Image credit: Daderot, CC BY 1.0, public domain

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Did Fossil Birds Live Longer than Today's Birds?

The Bible matter-of-factly states that humans living before and shortly after the Genesis Flood had centuries-long lifespans (Genesis 5 and 11). Yet the Bible gives no indication that this remarkable longevity was supernatural. If such human longevity was indeed natural, then early animals likely also had very long lifespans, since almost any conceivable cause for greater human longevity (fewer DNA mutations, a more optimal environment, etc.) would also have affected the animals. This would include birds, and a new proposal for why fossil birds lost their teeth is consistent with longer pre-Flood lifespans.

article highlights

- People living before the Flood had much longer lifespans than people today. Pre-Flood animals also likely lived longer.
- Fossil birds often had teeth, but none of today's birds possess them. A recent hypothesis explaining why birds lost their teeth is consistent with longer pre-Flood lifespans.
- Though evolutionists believe this tooth loss was accomplished through natural selection, it's possible it was accomplished through birds' God-given ability to adapt.
- If people only use an evolutionary lens, they'll only get evolutionary answers when alternative, and often better, explanations may exist that are consistent with Scripture.

because they take less time to hatch than fossil birds.⁶ Tooth growth in some extant reptiles doesn't even start until at least 40% of the incubation time has elapsed, and embryonic bird teeth may follow a similar development schedule. If so, today's birds may lack teeth because they hatch too quickly for teeth to form. Therefore, teeth could be indirect evidence that fossil birds had longer incubation

times. And since longer-lived creatures often take longer to mature than shorter-lived animals, *both before and after birth or hatching*,⁷ this could be more evidence that fossil birds had longer lifespans than today's birds.

Evolutionary scientists claim fossil birds inherited their teeth from reptile ancestors but eventually lost them through mutations and natural selection. But there could be another explanation. Teeth are useful but not *absolutely necessary* structures. Perhaps there are coded instructions within a bird's genome or other non-genetic information that instruct the embryo *not* to begin tooth formation when teeth are not an adaptive priority and/or when the anticipated incubation time is too short to complete the tooth formation process. Rather, instructions optimize the developing embryo to give higher priority to more essential structures and functions. This could be another example of adaptation guided by continuous environmental tracking.⁸

Bible-believing Christians should be encouraged by this. Delayed maturation and larger body sizes in at least some fossil birds are consistent with the Bible's testimony of greater longevity on the pre-Flood earth. And the evolutionary lens is not the only, nor often the best, one through which one can interpret scientific data. Living things, and even their fossils, confirm Scripture and testify to Jesus' engineering genius. 🦴

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The famous bird Archaeopteryx had teeth

Image credit: James L. Amos, CC BY 1.0, public domain

Direct and indirect evidence already published in the conventional scientific literature shows that fossil clams and oysters, sharks, crocodilians, and some small mammals lived much longer than comparable creatures today.¹ Also, generally, larger animals live longer than smaller animals, and long-lived animals take longer to mature than shorter-lived animals.²

At least some fossil birds were much larger than today's birds.³ And most of today's birds take a few weeks to months to reach adulthood,⁴ yet multiple fossil birds took several *years* to do so.⁵ Such delayed maturation is consistent with longer bird lifespans, and it may help creationists explain why some fossil birds had teeth, though true teeth are not present in any of today's birds.

Yang and Sander suggested that teeth are absent in today's birds

Why Is Natural Selection an Illusion?

Consider the following scenario. A population of organisms, let's say raccoons, lives in an environment somewhere on Earth and eats a variety of foods.

Its kind has thrived in that relatively stable environment for centuries. The weather suddenly cools for an extended period, and the creatures' main food source diminishes. The raccoons promptly respond by shifting their diet and be-

havior and search out more of their secondary foods. Their physiology appropriately adjusts to the change in diet. The creatures also respond to the temperature change by altering their metabolism—perhaps growing thicker coats and additional layers of fat that enable them to better cope with the cold. And the codes for these trait variations can rapidly transfer to the next generation. So, the raccoons innately and quickly respond to the environmental changes in several appropriate ways.



One might claim that the environment influenced the raccoons to change. Yet, the environment is only a collection of conditions to which organisms are exposed. The environment doesn't possess any agency to make any of the changes happen. When

article highlights

- The concept of natural selection is often misapplied by evolutionists and creationists alike.
- Environmental conditions constantly change, and many pertinent changes are sensed by organisms.
- But nature doesn't somehow send signals to creatures; rather, changes are detected by active organisms with specific sensors. The creatures then appropriately respond because they are designed to do so.
- The phrase natural selection is misleading—natural selection only superficially appears to exist. The term is a misnomer. Nature isn't an agent. It doesn't possess intelligence and can't select.

people project human-like abilities onto nature it's called personification. What actually *caused* the creature to change? Did nature send some sort of message to the raccoons? Did nature select for their changes and survival? No, the act of sending requires a mind and a will to determine the signal's content as well as the power and means to send the signal. Nature possesses none of these attributes.


It's clear the environmental conditions changed, but the change was actively detected by the creature rather than being sent to the creature. Information possessed within creatures is what specifies any given condition to be a stimulus for reaction.

We don't observe natural selection "working," "acting on," or "favoring." Applying these verbs is inaccurate and misleading. This pseudo-activity is misused by some to project agency onto nature and to view it as a substitute Creator. But all the activity—all the sensing, triggering, processing, and selecting—originated within the creature. The raccoon is the active, causal entity in each step. Its built-in sensors actively look for the

many changes in the environment that specifically relate to its wellbeing and that of its offspring.

The creature's body systems are specifically engineered to do all these active things: they sense changed conditions, sort the incoming data, employ the innate if-then logic built into their systems for proper response—often quickly and predictively. The systems then execute responses from a number of potential actionable options, enabling the creature to adjust to and thrive in its new conditions. The systems then conduct "surveillance" for the next changes. All these phenomenal attributes are innate to the creature. They were specifically designed and placed into the creature from the moment of its creation.

Going back to our example, if environmental conditions revert back to their initial state, the raccoon usually retains the built-in ability to change itself, and its subsequent generations, back to what worked best for that context.

Darwin knew virtually nothing of the profoundly complex genetic and epigenetic codes creatures possess when he came up with the misleading concept of natural selection. Darwin based his concept on mere appearance. I can select, you can select, but nature can't select. Natural selection is clearly an illusion. Conditions simply exist. They are real and often change, but they can't create precise new code to cause change. The complex code must be written by a writer, designed by a designer, programmed by a brilliant programmer: Christ Jesus. 

Reference

1. Natural Selection Part 1: A Darwinian Deception. *Creation.Live Podcast*. Episode 1. June 20, 2022.

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





Thank you for hosting the Estate Planning [Workshop]. It was VERY informative and I appreciate ICR, your work, your mission, your heart.

—S. W.

Editor's note: Email stewardship@icr.org to get more information about estate planning. And make sure to check out upcoming educational ICR events at ICR.org/events.



Thank you for sending me *Acts & Facts*. It is a real blessing and much appreciated. **I used to believe in the gap theory but, owing to the help of *Acts & Facts*, I now believe in Jesus Christ as the Creator of the young Earth.**

—M. S. K.



I enjoyed the time spent in the [the ICR Discovery Center] with my family. It was so great to meet some of you [and] put faces to names. You made me feel so welcome! My family really enjoyed it, too, and hopes to come back soon.

—S. K.



Editor's note: Schedule your visit to the ICR Discovery Center in Dallas, TX, today at ICRDiscoveryCenter.org.



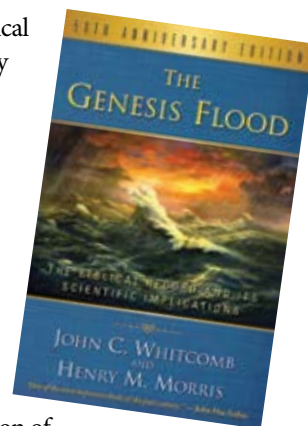
Thank you for sharing your vision. I'm one of the Christian scientists in a public school (STEAM lab teacher) who aims to use biblical science to explain concepts, history, and processes to students. . . . You gave me a lot of help when I taught mammoth and mastodon lessons a while back. **I continue to use your resources to see the Creator's design in the world.** Thank you for your work to equip the saints—even for public school ministry!

—S. B.

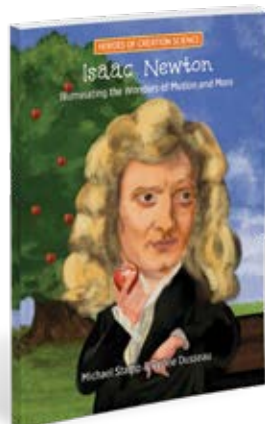


As a seminary student at Dallas Theological Seminary in 1963, I first read [Dr.] Henry Morris' book [*The*] *Genesis Flood*. **It revolutionized my understanding of the world from a biblical perspective.** . . . I have been able by the grace of God to follow the ministry of ICR since its founding in 1970. I have also been privileged to visit the Discovery Center in Dallas. I thank God for raising up such a wonderful ministry of ICR with all of its dedicated leaders, staff, and your commitment to a literal interpretation of the Word of God!

—D. C. D.



Today I received the five student-level [Heroes of Creation Science] books that my wife and I ordered for our grandsons. **I read the *Isaac***



***Newton* book myself and was very impressed with the quality and educational value of the writings and the interest it will certainly stir in my grandsons.** . . . Kudos to all the staff that researched, wrote, and produced such excellent and God-glorifying reading materials for young minds!

—J. C.

Editor's note: The Heroes of Creation Science series is available as print and digital books. To get your copy, visit ICR.org/store.

Have a comment?

Email Editor@ICR.org or write to

Editor, P. O. Box 59029, Dallas, TX 75229.

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



Written by Michael Stamp.
Illustrated by Melissa Marquez

Season's greetings! From the colorful leaves of autumn to the flowers of spring, each season is a gift from our loving Creator, Jesus. Seasons are caused by Earth's tilt on its axis, which means some places get more direct sunlight than others. So, when one hemisphere is angled toward the sun, it's summer there, and when it's pointed away, it's winter. Did you also know . . .

- ✓ There are four seasons: summer, fall (autumn), winter, and spring.
- ✓ Seasons happen on a yearly cycle, and in some areas, they can be more extreme or mild.
- ✓ The Northern and Southern Hemispheres have opposite seasons. Australia's summer happens during Canada's winter.

While some worry about global warming or cooling, God has told us that seasons will continue for as long as Earth exists. One day, He will make all things new (Revelation 21:5).

Find the hidden objects.



Fill in the Blank

"While the earth _____, seedtime and _____, cold and _____, winter and summer, and _____ and night shall not cease." (Genesis 8:22)

Find the 10 differences in the pictures below.



Answers to fill in the blank: remains, harvest, heat, day

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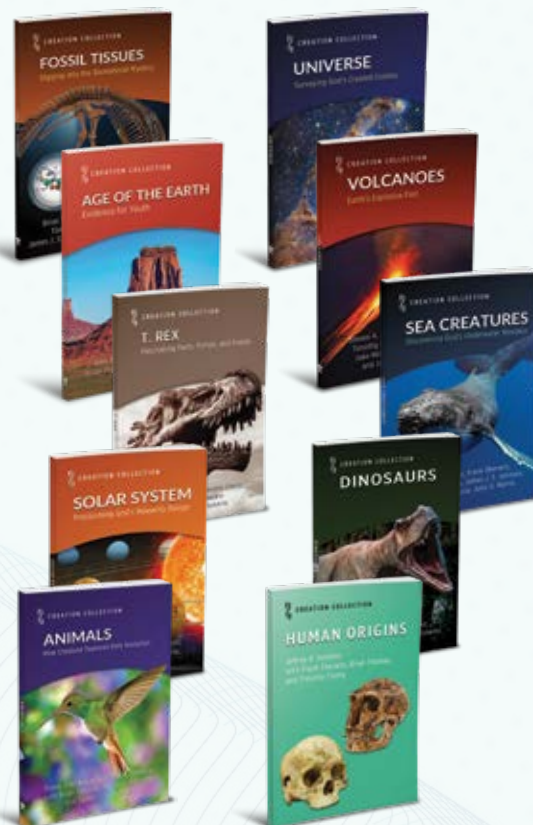
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