

ACTS & FACTS

INSTITUTE FOR
CREATION RESEARCH

www.icr.org

FEBRUARY 2014

VOL. 43 NO. 2

The Power of Love

page 5

**New Discoveries from
2,700 Species Comparisons**
page 9

The Solar System: Uranus
page 10

Counting Sheep Since Jacob's Day
page 15

**Human and Chimp DNA—
Nearly Identical?**
page 20

NEW!

THE BOOK OF BEGINNINGS

VOLUME THREE:

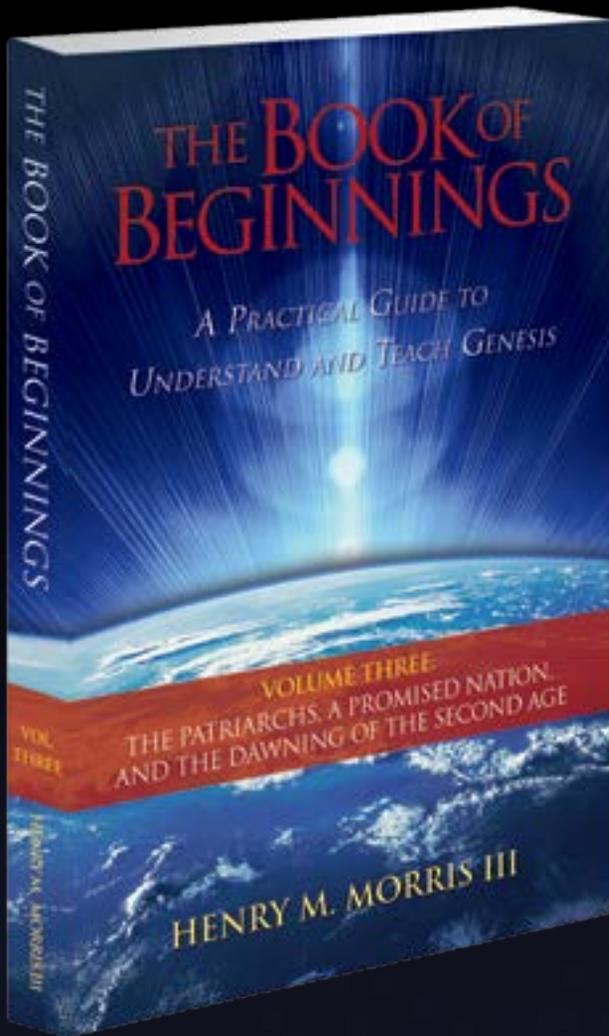
THE PATRIARCHS, A PROMISED NATION,
AND THE DAWNING OF THE SECOND AGE

DR. HENRY M. MORRIS III

BTBOB3

Introductory Price: \$9.99

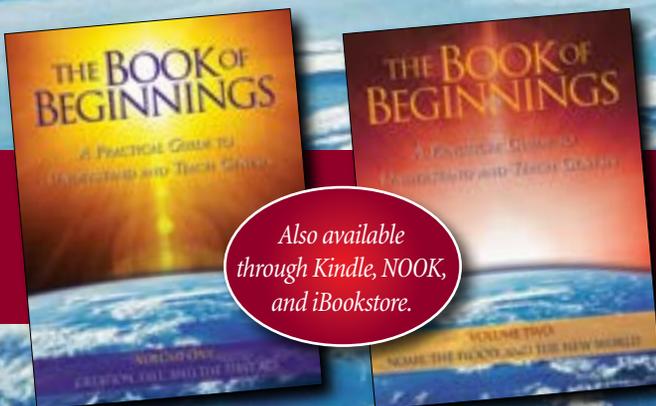
(regular price \$12.99)



In his *Book of Beginnings* trilogy, Dr. Henry M. Morris III addresses the tough issues of the Genesis record in a straightforward, comprehensible manner, clearly demonstrating that Genesis can only be understood as God's inerrant documentation of real human history.

In volume one, Dr. Morris presents commentary on the Genesis creation account through the eve of the great Flood of judgment. Volume two explores the pre-Flood world, Noah's preparations, the Flood's tremendous destruction, and the restarting of human history. This final volume picks up with Genesis 12 as God zeroes in on Abraham—tracing events in his life and the lives of his descendants as God builds the nation through which He will work out His great plan of redemption.

The book of Genesis is the foundation of the Bible. *The Book of Beginnings* provides a powerful resource for all those who would impact their world for Christ.



Also available
through Kindle, NOOK,
and iBookstore.

THE BOOK OF BEGINNINGS

Vol. 1 – Creation, Fall, and the First Age — BTBOB

Vol. 2 – Noah, the Flood, and the New World — BTBOB2

Now Reduced to \$7.99 each!

To order, call 800.628.7640 or visit

www.icr.org/store

Prices good through February 28, 2014

Published by
INSTITUTE FOR CREATION RESEARCH
P. O. Box 59029
Dallas, TX 75229
214.615.8300
www.icr.org

EXECUTIVE EDITOR
Jayme Durant

SENIOR EDITOR
Beth Mull

EDITORS
Christian Staley
Michael Stamp

DESIGNER
Dennis Davidson

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

Copyright © 2014
Institute for Creation Research



9



13



15



17



5

FEATURE

5 The Power of Love

HENRY M. MORRIS III, D. MIN.

RESEARCH

9 New Discoveries from 2,700 Species Comparisons

NATHANIEL T. JEANSON, PH. D.

IMPACT

10 The Solar System: Uranus

JASON LISLE, PH. D.

BACK TO GENESIS

13 Trilobites: Sudden Appearance and Rapid Burial

TIM CLAREY, PH. D.

14 Earth's Age: Science or Consensus?

JAKE HEBERT, PH. D.

15 Counting Sheep Since Jacob's Day

BRIAN THOMAS, M. S.

16 Scripture and the Flood

JOHN D. MORRIS, PH. D.

APOLOGETICS

17 Fishy Science

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

LEGACY

18 The Vital Ministry of Teaching

HENRY M. MORRIS, PH. D.

CREATION Q & A

20 Human and Chimp DNA—Nearly Identical?

JEFFREY TOMKINS, PH. D.

STEWARDSHIP

21 Don't Give... Sow!

HENRY M. MORRIS IV



Following Faithful Footsteps

During their growing-up years, I was often amused at how my younger children wanted to emulate the older ones. As a tiny toddler, my youngest daughter regularly tromped through the house in her older brother's cowboy boots that came up to her knees. My oldest daughter had the gift of talk, and her little sister would often stop eating at the dining room table, mesmerized by every word as the stories flowed. All my kids wanted to be pianists, just like their big sister—and every one of them stuck through lessons, recitals, and state theory exams for a dozen years. At many points in their lives, all of my children demonstrated a desire to follow in someone's footsteps.

In this issue of *Acts & Facts*, we look at the impact of following in faithful footsteps—we return to our roots with an eye on the future. Though these words by ICR founder Dr. Henry M. Morris were penned years ago, their message is timeless: “What is learned and implemented in one generation would be useless if not transmitted to the next generation. That requires the vital ministry of teaching!” (See his article “The Vital Ministry of Teaching” on pages 18 and 19.) At ICR, we are sensitive to the needs of this generation of millennials, so many of whom are leaving the church and, ultimately, rejecting God's Word. We are continuing the mission of our founder, working to equip you to teach others and lead them to truth.

Our CEO, Dr. Henry M. Morris III, emphasizes that God's Word illumines God's love, enabling us to follow His ways and to live confidently in a world that doesn't always embrace Scripture. In “The Power of Love” (pages 5-7), Dr. Morris says:

Individuals seeking God's character and instructions for a successful life...find their focus in a love for the Word of God.

Our secular world is struggling to find love....In stark contrast, God's love stimulates good works....God's love produces confidence and even fearlessness and a growing maturity in our ability to understand and cope with life. And God's love enables us to love others as He has loved us.

What better way to demonstrate love to the next generation than by sharing God's truth—leaving footsteps worthy of being followed!

Henry M. Morris IV, following in his grandfather's and father's footsteps, speaks about his grandfather's legacy in his stewardship article, “Don't Give...Sow!” (page 21). He reminds us of the founder's desire to glorify God through reaching out to others with God's truth:

As a child, I was unaware of the many books he had written, the multitudes who had heard him speak, or even of the early formation of ICR. I simply knew that everywhere my grandfather went people would enthusiastically share testimonies about the impact he had made on their lives. Such outpourings of gratitude were genuinely uncomfortable for him. But with a gracious humility that characterized his life, he deflected all glory and praise to God....Eight years ago this month the Lord called my grandfather home to heaven. Since that time, God has faithfully supplied for ICR through His people—just as my grandfather believed.

Mr. Morris recently welcomed his first grandchild, Aubrie Grace, someone ICR's founder never met on this earth—yet Dr. Henry Morris cared for his great-great-granddaughter even before she was born. He cared by living a life worthy of being followed and by establishing a ministry based on God's love and truth, a ministry that would impact little Aubrie's world for generations to come. When this child begins toddling—maybe even in an older child's cowboy boots—hopefully she will encounter a world that has been changed for the better by those in previous generations who loved the Lord and faithfully followed in His footsteps.

Jayme Durant

Jayme Durant
EXECUTIVE EDITOR



Aubrie Grace Morris
“For this child I prayed...”
(1 Samuel 1:27)

Though I speak with the tongues of men and of angels, but have not love, I have become sounding brass or a clanging cymbal. And though I have the gift of prophecy, and understand all mysteries and all knowledge, and though I have all faith, so that I could remove mountains, but have not love, I am nothing. And though I bestow all my goods to feed the poor, and though I give my body to be burned, but have not love, it profits me nothing.

(1 CORINTHIANS 13:1-3)

The Power of Love

HENRY M. MORRIS III, D. MIN.

The term “love” brings up all sorts of ideas in our widely mixed Western world. The media tend to picture love with desire and feelings and most often promote an equation of love with lovemaking—especially when love is the result of chemistry that bursts into passionate magic. Most of today’s thriving online matchmaking services market their brand of “happily ever after” using personality tests or compatibility pairing—and all of them brag about their success rates.

Speed-dating services and companies like It’s Just Lunch—along with Zoosk,

OurTime, ChristianMingle, SingleParent-Meet.com, and a host of others—promise to find love for you with “that special someone.” eHarmony alone has more than 15 million members and Match.com has more than 21 million.¹ One reliable source estimates that the dating industry brings in over one billion dollars in revenue each year in the U.S. alone, and the average client spends well over two hundred dollars per year to find the “right person.”¹

Reasonable, you might say, if real love is found.

It is interesting to note, however, that although the Bible does validate physical lovemaking in marriage as the purpose and design of the Creator, the concept of recreational sex outside of marriage is never promoted in Scripture—all promiscuous, premarital, and extramarital sex is strictly forbidden. Biblical love is based on a much different premise.

When reciprocated, *agape* love produces a bond that is almost impossible to break.

Perhaps the easiest way to understand the focus that God requires in a love relationship (both in marriage and in friendship) is to note the play on words in the interaction between the Lord Jesus and Peter

after the resurrection. The apostles met with the Lord on the shore of the Sea of Galilee, and Jesus asked Peter if he “loved” Him. Jesus used the word *agapao*.² Peter responded with *phileo*. The interchange in John 21:15-17 runs like this:

Jesus: “Do you *LOVE* Me?”

Peter: “Yes, Lord, You know I *LIKE* You.”

Jesus: “Feed My lambs.”

Jesus: “Do you *LOVE* Me?”

Peter: “Yes, Lord, You know I *LIKE* You.”

Jesus: “Tend My sheep.”

Jesus: “Do you *LIKE* Me?”

Peter: “You know that I *LIKE* You!”

Jesus: “Feed My sheep.”

These two words are at the heart of the human problem. God’s love—the love that God exercised when He “gave His only begotten Son”—was *agape* love.³ That kind of love is unilateral. That kind of love is a promise from the giver to the receiver with a men-

tal commitment to continue that love without regard to circumstances, feelings, or reciprocation. When reciprocated, *agape* love produces a bond that is almost impossible to

break. Yes, the human heart is fallible and sometimes breaks a relationship established on biblical love. But God’s love never fails. Many may reject His love, but God’s love was extended to all humanity with the re-

quest that they believe that He loved them.

Human love, on the other hand, in its normal form is *phileo* love—love that is based on mutual fondness. Hence, the emphasis of the modern dating services on compatibility. And it works...for a while. If folks like each other and enjoy the same sort of behavior, they can get along together under normal circumstances. But when any kind of crisis erupts, disability occurs, or serious differences of opinions develop (and they will), the “like” shows its weakness because it is not “love.” The relationship suffers and may ultimately dissolve.

The Bible speaks of the two pillars of the Law upon which the relationships of man with God and man with man rest. The first pillar is called the Greatest Commandment: “You shall love the LORD your God with all your heart, with all your soul, and with all your mind” (Matthew 22:37). This pillar, of course, summarizes the first four of the Ten Commandments (Exodus 20:2-11).

- God is to reign—nothing is superior.
- God is not reproducible—there is no other likeness.
- God is to be revered—He is not “ordinary.”
- God is to be remembered—He is the Creator!

The second pillar is: “You shall love your neighbor as yourself” (Matthew 22:39). The neighbor has a broad application according to the parable of the Good Samaritan (Luke 10:29-37). That second pillar is summarized by the last six of the Ten Commandments.

- Respect authority (Ephesians 6:1-3; Romans 13:1-7).



Perhaps the greatest test of whether love or fondness

dominates our lives is examining our practice to see if we do *not* love what God does *not* love.

- Protect life (Deuteronomy 19:11-12; 1 John 3:15).
- Protect marriage (1 Corinthians 6:13-18; James 4:1-4).
- Respect property (Exodus 22:1-15; Malachi 3:8-10).
- Honor truth (Zechariah 8:16-17; Ephesians 4:29-32).
- Reject greed (Psalm 106:13-15; 1 Timothy 6:9-10).

Coupled with the obvious emphasis on the *agape* love outlined in the Ten Commandments, the Bible speaks of a two-master problem. You cannot love two opposing ideas (people, lifestyles, worldviews, etc.); one or the other will dominate your heart (1 Timothy 6:9-10; Matthew 6:23). Put simply, relationships with God and with other humans will either be based on a mutual fondness (*phileo*) or an intellectual, unilateral commitment (*agape*).

Perhaps the greatest test of whether love or fondness dominates our lives is examining our practice to see if we do *not* love what God does *not* love. And that boils down to how we relate to the “world” (1 John 2:15-17)—the system that places self and monetary success or personal dominance over submission to the authority of the Creator.

On the positive side, “love does no harm to a neighbor; therefore love is the fulfillment of the law” (Romans 13:10). This

kind of human love is really an expression of God’s love. That love is easy to define, even if difficult to keep, and is found in the classic passage in 1 Corinthians 13:4-7. God’s love is summed up by the following qualities:

- Patient (Ephesians 4:2; 2 Timothy 4:2)
- Kind (Ephesians 4:32; 1 Peter 3:8)
- Not jealous (Romans 13:13; Galatians 5:26)
- Does not brag (Proverbs 27:1; Ecclesiastes 7:8)
- Not arrogant (1 Corinthians 8:1; Philippians 2:5-7)
- Does not act unbecomingly (Ephesians 5:12; Philippians 3:19)
- Does not seek its own (Philippians 2:2, 21; Romans 15:2)
- Not provoked (Proverbs 14:17; James 1:19)
- Does not think evil (Mark 7:20-23; Micah 2:1)
- Does not delight in evil (Psalm 10:3-4; Romans 1:32)
- Rejoices in truth (2 John 4; 3 John 3)
- Bears, believes, hopes, endures all things (2 Timothy 2:3, 24-26; 4:5)

Individuals seeking God’s character and instructions for a successful life (i.e., successful in God’s eyes) find their focus in a love for the Word of God (John 14:15-24; 1 John 5:2-3). Our secular world is struggling to find love and falling prey to relation-

ships based only on a mutual fondness that fades with time and circumstance.

In stark contrast, God’s love stimulates good works (Hebrews 10:24). It causes us to honor our leaders (1 Thessalonians 5:12-13). God’s love produces confidence and even fearlessness (2 Timothy 1:7; 1 John 4:18) and a growing maturity in our ability to understand and cope with life (Ephesians 4:15; Colossians 2:2). And God’s love enables us to love others as He has loved us (John 13:34).

Ultimately, of course, God’s love—made efficacious in us through His salvation—provides confidence in His sovereign control (Romans 8:28) and security in His faithful preservation (Romans 8:35-39). When God gives instructions for husbands to love their wives, He uses *agapao* rather than *phileo* (Ephesians 5:25). That kind of love continues “for better or for worse” and does not waver when circumstances change. *Agape* love commits for life; *phileo* love falls away when the passion fades. It allows only surface sacrifice and protects self rather than the other. But God grants the twice-born special ability to demonstrate the powerful *agape* love that unreservedly sacrifices for the sake of the one loved. “Greater love [*agapen*] has no one than this, than to lay down one’s life for his friends” (John 15:13). ●

References

1. Online Dating Statistics. Statistic Brain. Posted on statisticbrain.com January 1, 2014, accessed January 7, 2014.
2. *Agapao* is the verb form, and *agape* is the noun.
3. John 3:16.

Dr. Morris is Chief Executive Officer of the Institute for Creation Research.



■ **FEBRUARY 5**

Odessa, TX – Sherwood Baptist Church
(F. Sherwin) 432.362.0331

■ **FEBRUARY 6-8**

Odessa, TX – University of Texas Permian Basin Baptist
Student Ministry
(F. Sherwin) 432.553.0770

■ **FEBRUARY 9**

Dallas, TX – First Baptist Church Discipleship University
(R. Guliuzza, F. Sherwin) 214.969.2402

■ **FEBRUARY 9-10**

Jasper, TX – First Baptist Church
(T. Clarey, B. Thomas) 409.384.7033

■ **FEBRUARY 9-12**

Sebring, FL – Maranatha Baptist Church
(H. Morris III) 863.382.4301

■ **FEBRUARY 16**

Dallas, TX – First Baptist Church Discipleship University
(B. Thomas, H. Morris III) 214.969.2402

■ **FEBRUARY 21-23**

Augusta, GA – Cliffwood Presbyterian Church
(N. Jeanson) 706.798.2691

■ **FEBRUARY 21-23**

Baton Rouge, LA – Grace Presbyterian Church
(J. Hebert) 225.261.0890

■ **FEBRUARY 23**

Dallas, TX – First Baptist Church Discipleship University
(H. Morris III, J. Morris, T. Clarey) 214.969.2402

■ **FEBRUARY 23**

Blue Ridge, TX – Ridgeview Fellowship
(F. Sherwin, B. Thomas) 972.752.9123

■ **FEBRUARY 25**

Lindale, TX – Teen Mania Worldview Symposium 2014
(N. Jeanson, B. Thomas, R. Guliuzza) 800.229.8336

For more information on these events or to schedule
an event, please contact the ICR Events Department at
800.337.0375, or visit www.icr.org/events, or email us at
events@icr.org.

April 25-27, 2014

11TH ANNUAL BRANSON WORLDVIEW WEEKEND

Branson, Missouri
Oak Ridge Boys Theater
464 State Highway 248
Branson, MO 65616



**ICR Speaker:
Dr. Henry M. Morris III**

For more information and registration, visit
branson.worldviewweekend.com



BioOrigins Project Update

New Discoveries from 2,700 Species Comparisons

How would you answer the evolutionist who says that DNA comparisons demonstrate human-ape common ancestry? You might cite the results of Jeff Tomkins' recent research which show that 900,000,000 DNA differences divide us and our supposed evolutionary cousin.¹

But how would you answer the evolutionist who says that *relative* DNA comparisons depict a branching tree of life across the entire animal kingdom? For example, he might ask why humans are still genetically closer to chimpanzees than to horses. He might also ask why mammals are genetically closer to one another than to reptiles. You might invoke function as the explanation since mammals share more physiological functions with one another than with reptiles.

But what if the evolutionist narrows his scope further and claims that the DNA sequences he compared coded for proteins that perform *similar functions* in each of these many creatures? What if the proteins were involved in certain chemical transformations of basic biomolecules found in nearly every animal species? How would you answer this challenge?

At least two creation hypotheses can be invoked to explain these patterns. First, the DNA differences among these species

might have resulted from mutations in each of these species over the last 6,000 years. This would require significant amounts of DNA change in just a couple thousand years, and this requirement presents a daunting hurdle to this hypothesis.

Second, these proteins might perform more functions than previously expected. Perhaps the DNA differences were created in these creatures for purposes hitherto unknown. This hypothesis seems attractive at first pass, but delving into the molecular biology behind it reveals an equally formidable hurdle. Invoking multiple roles for proteins goes against the conventional molecular biology paradigm of the last several decades.

ICR has been analyzing these hypotheses over the past few years by comparing the DNA sequences from mitochondria, and we recently made some major discoveries.^{2,3,4,5} One of the keys to our breakthroughs was expanding our dataset to include thousands of species—nearly 2,700. Another key was dividing our analyses into two groups—a group of comparisons between separately created categories of creatures (i.e., creatures belonging to separate kinds) and a group of comparisons among creatures related to a common ancestor (i.e., belonging to the same kind).⁶

Our first finding uncovered an answer for the patterns of DNA comparisons between different kinds. Testing the hypotheses of random mutation versus created DNA diversity required deriving a new method to distinguish between these possibilities. Results from applying this method to thousands of species suggest that God created differences in separate kinds from the start for a functional purpose. These new data challenge the prevailing paradigm, and they suggest exciting new areas of investigation.

Our second major finding highlighted not only a likely explanation for DNA differences within kinds but also a new scientific argument for recent creation. The rate of DNA mutation has been measured in several species, and these rates can be used to make predictions based on the young earth and evolutionary models. Multiplying the evolutionary time of origin for these species by their known mutation rates leads to predictions of modern genetic differences that are impossibly high. Conversely, multiplying the mutation rates by several thousands of years predicts modern genetic differences in these kinds very well.

All of these findings have been published in creationist peer-reviewed literature.⁷ We'll be discussing them in much more depth in future *Acts & Facts* issues. ●

References

1. Tomkins, J. 2013. Comprehensive Analysis of Chimpanzee and Human Chromosomes Reveals Average DNA Similarity of 70%. *Answers Research Journal*. 6: 63-69.
2. Jeanson, N. 2010. New Frontiers in Animal Classification. *Acts & Facts*. 39 (5): 6.
3. Jeanson, N. 2012. Bio-Origins Project Update, Comparing 2,000 Animal Species Molecularly. *Acts & Facts*. 41 (9): 6.
4. Jeanson, N. 2012. Bio-Origins Project Update, Hypothesizing Differential Mutation Rates. *Acts & Facts*. 41 (10): 6.
5. Jeanson, N. 2012. Bio-Origins Project Update, Evidence Against Differential Mutation Rates. *Acts & Facts*. 41 (11): 6.
6. Jeanson, N. 2013. Is Evolution an Observable Fact? *Acts & Facts*. 42 (1): 20.
7. Jeanson, N. 2013. Recent, Functionally Diverse Origin for Mitochondrial Genes from ~2700 Metazoan Species. *Answers Research Journal*. 6: 467-501.

Dr. Jeanson is Deputy Director for Life Sciences Research and received his Ph.D. in cell and developmental biology from Harvard University.



For millennia, the science of astronomy was limited to observations that could be made with the unaided eye. That changed in the 1600s with the invention of the telescope. As telescopes grew in size and optical quality, these marvelous instruments enabled astronomers to detect and investigate astronomical phenomena that are difficult or impossible to see with the unaided eye. Not least among these was the discovery of a previously unknown planet—Uranus.

Discovery

Sir William Herschel discovered Uranus on March 13, 1781. Herschel was a skilled astronomer, having constructed and used many different telescopes. With assistance from his sister Caroline, he systematically cataloged thousands of deep sky objects—i.e., celestial objects lying beyond the solar system. His survey formed the initial basis for what would become the *New General Catalogue (NGC)* of celestial deep sky objects that is still used by astronomers today. Herschel also specialized in observations of binary stars.

It was during his systematic cataloging of binary stars that Herschel observed a small, light-blue disk. It could not have been a star since stars, which appear as shimmering points in a telescope, are too distant to appear as disks. But this unusual object did appear as a small sphere with definite size. Herschel initially supposed it to be a comet. But as he tracked the object over several nights, he found that it did not move like a comet. Comets generally have highly elliptical orbits, but the extrapolated orbit of this blue disk was nearly circular. It had to be a planet.

Herschel decided to name this new planet *Geordium Sidus* (George's Star) to honor King George III. The choice was pop-



The Solar System: Uranus

J A S O N L I S L E , P H . D .

ular in England. Unsurprisingly, the international astronomical community rejected this name. Some favored naming the planet after Herschel, but tradition ultimately prevailed. The other five known planets (excluding Earth) were all named after Roman gods.¹ That trend would continue, somewhat modified, with the new planet being named after the Greek god of the sky—Uranus (YOOR-un-us).² Since Uranus is sky-blue in color, the choice seemed fitting.³

Although Herschel is considered the

discoverer of Uranus, he was not the first person to see it. In the year 1690, John Flamsteed observed Uranus and cataloged it as the star 34 Tauri. Pierre Lemonnier also observed Uranus multiple times in the 1750s and 1760s, but neither he nor Flamsteed recognized the object as a planet. This is understandable. Uranus is a tiny blue disk and moves very slowly compared to the other planets. The planet is easily visible in binoculars but appears indistinguishable from a star at such low magnification. Patient ob-



Image credit: NASA/JPL

Uranus orbits the sun at an average distance of 1.79 billion miles—over 19 times farther out than Earth. At such a distance, Uranus takes 84 years to orbit the sun.

planet is four times the diameter of Earth. Its outer composition is similar to that of Jupiter and Saturn—mostly hydrogen and helium gas, with a small percentage of methane. Based on its density, the interior of Uranus is thought to be composed of various ices such as water, ammonia, and methane. For this reason, Uranus is sometimes referred to as an *ice giant* rather than a gas giant like Jupiter or Saturn.

Detailed study of Uranus with Earth-based telescopes has been difficult due to the extreme distance. The *Voyager 2* spacecraft provided the most detailed images to date when it flew past Uranus in 1986, generating pictures of a nearly featureless blue sphere without the prominent belts and zones found on Jupiter and Saturn.^{4,5,6} Though it appeared bland during the *Voyager 2* flyby, Uranus does manifest white clouds on occasion that are detectable in large, Earth-based telescopes.

Uranus has a system of rings that are quite different from the rings of Saturn. Saturn's main rings are broad sheets of orbiting material, whereas the rings of Uranus are more like a series of 13 thin ropes. Each of these ropes encircles Uranus at a discrete distance, and all are in the plane of its equator. These rings were discovered in 1977 when Uranus passed in front of a bright star. Astronomers were monitoring the brightness of the star in order to assess the atmosphere of Uranus in the brief moment when the planet just began to cover the star.⁷ Much to their surprise, the star “winked out” five times before Uranus passed in front of it and again five times afterward. They correctly deduced that a system of five narrow rings surrounds Uranus. The other eight rings were detected at a later date. Since their initial discovery, Uranus' rings have been imaged directly by the *Voyager 2* spacecraft and also by the Hubble Space Telescope.

Unlike any other planet, Uranus rotates on its side. That is, the rotation axis is

tilted approximately 90 degrees relative to the planet's orbital plane.⁸ Consequently, Earth-based telescopes are able to look almost directly down the polar axis of Uranus every 42 years during the planet's summer or winter solstice. Since the rings orbit around Uranus' equator, they too are sideways, as are most of its moons. The extreme tilt of Uranus is contrary to the expectations of the secular model of solar system formation. Under this model, the planets ought to have formed such that their rotation axis is nearly perpendicular to their orbital plane. Only Jupiter and Mercury meet this expectation. Secular scientists usually attribute the disagreement between observations and their theory to being the result of some giant impacts in the distant past that knocked the planets from their original vertical orientations.

Moons

Uranus has 27 known moons. Two of these, Oberon and Titania, were discovered by William Herschel in 1787 and are the largest and brightest moons of the Uranus system. Yet, they are less than half the diameter of Earth's moon. The moons Ariel and Umbriel were discovered in 1851, and little Miranda was discovered in 1948. These constitute the five major moons of Uranus, all of which can be seen in a medium-sized backyard telescope under very dark skies, though Miranda is particularly challenging.

The remaining 22 moons are much smaller, all being less than about 50 miles in radius and generally non-spherical.⁹ They were discovered during or after the *Voyager 2* flyby in 1986. The naming of these moons began a new tradition—they are all named after Shakespearean characters (mostly from *The Tempest*) or characters from Alexander Pope's poetry.¹⁰ John Herschel, the son of William, began this new custom to honor his English heritage.

servers with keen vision and dark skies may be able to see Uranus with the unaided eye—but just barely. For this reason, it is likely that many ancient astronomers also saw Uranus but failed to notice its slow movement relative to thousands of brighter stars.

Properties

Uranus orbits the sun at an average distance of 1.79 billion miles—over 19 times farther out than Earth. At such a distance, Uranus takes 84 years to orbit the sun. The



From left to right: *Miranda, Ariel, Umbriel, Titania, and Oberon.*

Image credit: NASA/JPL/Ted Stryk

The Uranian moons are all composed of various combinations of rock and ice. Thirteen orbit close to the planet in nearly perfect circles. Next out are the five major moons. In order of increasing distance from the planet, they are Miranda, Ariel, Umbriel, Titania, and Oberon. They also orbit in nearly perfect circles and all in the planet's equatorial plane. All 18 inner moons orbit prograde—in the same direction that Uranus rotates. Beyond Oberon, there is a considerable gap before we encounter the remaining nine moons. The orbits of these outer moons are not in Uranus' orbital plane, and each has its own unique orbital plane. Eight of the nine have retrograde orbits—opposite the direction that Uranus rotates. This pattern of regular, prograde, coplanar moons being close to the planet and irregular, non-coplanar moons being at a greater distance seems to be a common feature of planets in the solar system.

In 1984, creation physicist Russ Humphreys predicted the magnetic field of Uranus based on the amount of magnetic decay that would have happened on Uranus in the 6,000 years since its creation. *Voyager 2* confirmed this prediction.

Magnetic Riddles

The orientation of Uranus' magnetic field is quite unusual. Most planets have a magnetic field that is approximately aligned with their rotation axis. Not so with Uranus. The magnetic axis is offset from the rotation axis by an astonishing 60 degrees. Moreover,

the magnetic axis does not pass through the center of the planet but is offset to one side by roughly one third the radius of the planet. From a secular perspective, it is mystifying that Uranus should have a magnetic field at all. Magnetic fields naturally decay with time and should be nonexistent in planets that are billions of years old.

On the other hand, the magnetic field of Uranus fits perfectly with biblical creation. In 1984, creation physicist Russ Humphreys predicted the magnetic field of Uranus based on the amount of magnetic decay that would have happened on the planet in the 6,000 years since its creation.¹¹ *Voyager 2* confirmed this prediction. Although the presence of a strong magnetic field on any planet is a confirmation of recent creation, this is especially the case for Uranus.

Here's why this challenges the secular view: To salvage their belief in billions of years from the contrary evidence of planetary magnetic fields, secular astronomers usually invoke a magnetic *dynamo*. A dynamo is a device that turns mechanical energy into the electrical current necessary for a magnetic field. Secular scientists have proposed that mechanical motion due to heat in a planet's interior somehow forms a dynamo, thereby regenerating the planet's magnetic field over millions and even billions of years. But of the four giant planets in our solar system, Uranus alone lacks any measureable internal heat. So, there is no power source for the dynamo. Also, dynamo models predict that the magnetic field axis must be fairly well aligned

with the rotation axis. Uranus violates this condition as well.

Conclusion

The first planet to be discovered in modern times, Uranus is a diverse world of unique splendor. Its sky-blue disk is an enjoyable sight in a backyard telescope, and to spot its moons is a fun challenge. The properties of Uranus are fascinating and confound the secularists but clearly declare God's glory.¹²

References

1. The other five planets known at the time were Mercury, Venus, Mars, Jupiter, and Saturn. Neither Neptune nor the dwarf planet Pluto had yet been discovered.
2. The name was suggested by Johann Bode. Bode is known for his observation that the sequence of planet distances (in AU) from the sun can be approximated by a simple mathematical formula: $a = 0.4 + 0.3 \times 2^n$. This pattern is sometimes called *Bode's Law*. The distance of Uranus matches the prediction of Bode's Law. However, Neptune does not.
3. Also, in Greek mythology Uranus was the father of Kronos—the Greek name for Saturn—just as in Roman mythology Saturn was the father of Jupiter.
4. *Voyager 2* is the only spacecraft to have visited Uranus.
5. The color is caused by methane, which absorbs red light.
6. Though imperceptible in visible wavelengths, belts and zones do appear in infrared images of Uranus.
7. The astronomers who first detected Uranus' rings were James Elliot, Edward Dunham, and Douglas Mink.
8. The axial tilt of Uranus is usually reported either as 97.77° or 82.23°. The difference is due to ambiguity in which pole should be considered the North Pole. If the North Pole is considered to be the pole under which the planet rotates counterclockwise, then Uranus is tilted 97.77° and rotates prograde—in the same direction as Earth. If the North Pole is considered to be that which lies above the orbital plane, then Uranus is tilted 82.23° and rotates retrograde, i.e., "backward" from Earth. For six of the planets, there is no difference between the two conventions. Venus and Uranus are the exceptions.
9. The term *radius* is used somewhat loosely here since the moons are not generally spherical. The 22 small moons have a longest axis that is less than 100 miles in length, with the possible exception of Puck, which measures right at 100 miles.
10. Three of the Uranian moons are named after characters from Alexander Pope's humorous poem *The Rape of the Lock* in which a lock of a woman's hair is snipped off and stolen.
11. Humphreys, D. R. 1984. The Creation of Planetary Magnetic Fields. *Creation Research Society Quarterly Journal*. 21 (3).
12. Psalm 19:1.

Dr. Lisle is Director of Research at the Institute for Creation Research and received his Ph.D. in astrophysics from the University of Colorado.



Trilobites: Sudden Appearance and Rapid Burial

Trilobites are one of the most popular fossils for collectors and are found all over the world. The Ute Indians used one species as an amulet, and there is even a cave in France called the Grotte du Trilobite that contained a relic made out of one of these extinct marine creatures.^{1,2}

Trilobites are members of the phylum Arthropoda, which includes spiders, insects, and crustaceans. Today, members of this group make up at least 85 percent of the species on Earth and live in every environment. Insects alone account for over 870,000 of these species.¹ God designed all arthropods with an exoskeleton (i.e., an outer skeleton) that is segmented into appendages. In Greek, *arthron* means joint and *podos* means foot. This exoskeleton does not grow as the animal grows but rather has to be shed—molted—as the animal matures.

Although arthropods dominate the biomass of the planet today, their fossil record is much more limited, with only about 30,000 fossilized arthropod species identified.¹ Because most arthropods have an exoskeleton of organic, chitinous cuticle, they decompose easily and don't preserve well as fossils. A few arthropod groups like the trilobites, whose shells were calcified, were

preserved in the Flood. There are over 2,000 genera (the plural of genus, the category above species) of trilobites in the fossil record and thousands of named species.¹

Arthropods represent a major part of the great evolutionary mystery called the Cambrian Explosion. In fact, they are one of the most common fossils in Cambrian system strata.¹ They appear in the rock layers fully formed—without ancestors. Evolutionist Richard Fortey writes, “And yet how can it be that all this variety [the trilobite fossils] arose apparently *instantly* at the base of the Cambrian?” He continues, “Where then were these ancestors? Why were they apparently invisible?”² These questions are easily answered by creationists, who explain the sudden appearance of fossils in the Cambrian system as part of the initial sediments deposited by the Flood. It seems likely that shallow marine organisms would be the first types of animals buried and preserved by advancing floodwaters.

And now trilobite fossils are producing some of the strongest evidence of catastrophic burial. A recent study found that many of these creatures were inundated rapidly while they were still alive!³ Numerous specimens are found in a rolled-up position—like giant roly-polies—to protect

themselves from danger. However, a few varieties lacked the design to “lock their shells” and hold the ball-shaped position; these arthropods had to rely on their internal muscles to hold themselves in a rounded shape.

Recently, evolutionists were surprised when they discovered many of these trilobites with non-locking shells in a rolled, protective position. Javier Ortega-Hernandez and his co-authors reported, “After death, the muscles responsible for flexing the trunk would have relaxed, causing the carcass to return to the outstretched position. Thus, the best possibility of preserving rolled olenellids [this type of trilobite] would require rapid burial of live individuals.”³

Entombed in some of the earliest sediments of the great Flood, trilobites discovered in rolled-up positions demonstrate that many were buried while still alive. However, their sudden appearance in strata is not a mystery when viewed in a biblical context—it confirms that the Flood quickly inundated the earth, encapsulating many animals in mud in the process. Science continues to find evidence that confirms the Bible, even in these little rolled-up treasures. ●

References

1. Prothero, D. R. 1998. *Bringing Fossils to Life: An Introduction to Paleobiology*. Boston: McGraw-Hill, 247-258.
2. Fortey, R. A. 1997. *Life: A Natural History of the First Four Billion Years of Life on Earth*. New York: Alfred A. Knopf, 14, 103.
3. Ortega-Hernandez, J., J. Esteve, and N. J. Butterfield. 2013. Humble origins for a successful strategy: complete enrolment in early Cambrian olenellid trilobites. *Biology Letters*. 9 (5): 20130679.

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



Earth's Age: Science or Consensus?

Many scientifically trained Christians are urging the church to accept the doctrine of an old earth, saying that the arguments for a 4.6-billion-year-old earth are simply too numerous and convincing to deny. These Christians would argue that they believe in an old earth simply because of the strong scientific case for it. But how can this be when few of them have actually studied old-earth arguments in detail?

Most scientists are simply too busy with their own research to seriously investigate old-earth claims. And if someone has never thoroughly studied an old-earth argument, then how can he really understand it? Nor is this conclusion changed by specialized training: A scientific background in one field—even at the Ph.D. level—does *not* confer all-around expertise. And thinking that it *does* is as fallacious as thinking that a dentist is qualified to perform brain surgery!

Science—in the sense of genuine knowledge and understanding—is not the real reason many scholarly Christians accept the doctrine of an old earth. Rather, they accept this doctrine for the same reason that laypeople do: They trust the secular scientific community's conclusions—the majority consensus—on the subject.

The old-earth Christian academic might bristle at this suggestion. He may insist that, unlike most laypeople, his belief in an old earth is based on genuine knowledge and understanding. He may very well be acquainted with many of the arguments for an old earth, but acquaintance is not the same thing as in-depth comprehension. Old-earth arguments may seem convincing on the surface, but this is because many involve oversimplifications and fail to acknowledge the unspoken but critical assumptions that go into them, assumptions that often implicitly deny even the *possibility* of creation and the Flood.

Secular scientists may be quite knowledgeable in their specialty fields, and many people naively assume that claims about an old age of the earth couldn't possibly be motivated by anything other than a simple desire for truth. However, it's important to recognize the human mind's natural hostility toward the things of God. Without faith in Christ, we are characterized by "enmity against God" (Romans 8:7) and described as those who "suppress the truth in unrighteousness" (Romans 1:18). Many Christians who advocate accommodation with old-

earth ideas would unhesitatingly affirm these statements from Romans, but they also argue that an old age for the earth and universe cannot be questioned. But an old earth and universe simply cannot be reconciled with the plain meaning of Scripture.

Although the age of the earth is extremely important because it touches directly on the Bible's historical accuracy, the question of God's existence is *far more* important—it's essential to salvation (Hebrews 11:6). Yet many scientists who deny a recent creation also deny the existence of God—despite overwhelming evidence of design in nature. Hence, they have already demonstrated a lack of objectivity on the subject of origins.

If secular scientists are "suppressing the truth" when it comes to the weightier issue of God's existence, why would Christians unquestioningly accept their claims about Earth's history?

Both scientific and historical data can be interpreted in more than one way. In a courtroom, prosecuting and defending attorneys can offer radically different interpretations of the very same forensic evidence. Because a given interpretation may seem superficially plausible, opposing sides are allowed to cross-examine one another. Probing questions may reveal problems in an interpretation of events, problems that might otherwise have gone unnoticed.

Despite popular hype, the preponderance of the evidence clearly favors the truthfulness of the Bible's account of a young earth, and a biblical worldview is the key to making sense of both the scientific and historical data, as well as the meaning of life itself. ●

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



Charles Darwin believed that selective breeding, the process he leadingly coined as “artificial selection,” illustrated how evolution in the wild could transform one animal kind into another. Have thousands of years of purposeful propagations backed up his claim?

It’s true that sheep *have* changed over time. Variations occur in their body sizes, legs, heads, ears, tail sizes and shapes, and wool colors and quality. For example, some breeds have no horns, some have horns only in the males, some have horns in both sexes, and others have multiple sets of horns. But



wouldn’t the emergence of some non-sheep traits through selective breeding best illustrate the supposed truth of evolution?

Genesis presents the first written record of selective breeding when it describes Jacob inducing specific sheep to mate and then separating the “stronger livestock” from the “feeble.”¹ There is every historical indication that this practice has continued unbroken from before Jacob’s time until today. How many years has this artificial selection been going on?

For the sake of argument, one can pin an archaeological date to Jacob’s grandfather Abraham. Babylonian land and labor contracts dated back to 1950 B.C. and 1965 B.C. record dealings of “Abi-ramu” (Abram) near Ur.² Abraham was 100 years old when his wife Sarah gave birth to Isaac, and Isaac was 60 when his wife Rebekah gave birth to

Counting Sheep Since Jacob’s Day

BRIAN THOMAS, M.S.

Jacob (Genesis 21:5; 25:26). This puts Jacob working as a shepherd in the early 18th century B.C., roughly 38 centuries ago. Sheep gestation lasts about five months, and sheep reach sexual maturity at roughly six to eight months.³ Thus, a brand-new generation occurs every 11 to 13 months—one sheep generation per year for 38 centuries yields about 3,800 generations.

Darwin suggested that one must simply imagine trait changes that occur under domestication also occurring in the wild over eons, gradually transmuting one kind into another. But the basic kind has resisted evolution for perhaps 3,800 generations. So far, sheep keep birthing sheep, and all of their trait variations remain...well, sheepish.

Similarly, researchers spent 29 years selectively breeding 600 fruit fly generations only to find no permanent trait changes—no evolution.⁴

Nineteenth-century naturalist Sir Wyville Thomson wrote that sea life “refuses to give the least support to the theory which refers the evolution of species to extreme variation guided only by natural selection.”⁵ Darwin reacted to this comment in 1880:



I have likewise there [in *The Variation of Animals and Plants under Domestication*] adduced a considerable body of facts, showing the direct action of external conditions on organisms [selective breeding]....If Sir Wyville Thomson were to visit the yard of a breeder, and saw all his cattle or sheep almost absolutely true, that is, closely similar, he would exclaim: “Sir, I see here no extreme variation; nor can I find any support to the belief that you have followed the principle of selection in the breeding of your animals.” From what I formerly saw of breeders, I have no doubt that the man thus rebuked would have smiled and said not a word. If he had afterwards told the story to other breeders, I greatly fear that they would have used emphatic but irreverent language about naturalists.⁵

Darwin was intimating that sheep breeders know that some traits change



quickly and that this change illustrated evolution. But the extremely long history of sheep breeding better fits Thomson’s beliefs than Darwin’s. While animals express variations in certain traits, their basic forms remain stable. ●

References

1. Genesis 30:41-42.
2. Cooper, B. 2012. *The Authenticity of the Book of Genesis*. Portsmouth, UK: Creation Science Movement, 81-82.
3. Some breeds reach sexual maturity as early as three months of age and others as late as 20 months.
4. See Burke, M. K. et al. 2010. Genome-wide analysis of a long-term evolution experiment with *Drosophila*. *Nature*. 467 (7315): 587-590.
5. Darwin, C. 1880. Sir Wyville Thomson and Natural Selection. *Nature*. 23 (576): 32.

Mr. Thomas is Science Writer at the Institute for Creation Research.





SCRIPTURE AND THE FLOOD

JOHN D. MORRIS, P.H.D.

Often in the pages of *Acts & Facts* we make reference to the great Flood of Noah's day being global in extent and dynamic in intensity as opposed to being a mere local or tranquil event. There is no such thing as a tranquil flood, for even small-scale overflows do extensive geologic damage and often take a substantial human toll. But both Scripture and geology support the concept of a massive flood in the past that far exceeded any of those today, as illustrated by numerous examples. However, Scripture carries even more weight in understanding prior, unobserved events. What does the Bible have to say about the Flood's extent and impact?

The unsurpassed deluge witnessed by Noah is described in sufficient detail to leave no doubt that it was both global and Earth-altering. Even the words for the Flood used in both the Old and New Testaments indicate an occurrence unique in both scope and effect. The watery experiences of the Red Sea and the Jordan River crossings were impressive enough but should not be compared to the cataclysm recorded in Genesis. Other Hebrew and Greek words are used to refer to these less intense local floodings, but those describing the great Flood are special. To study these specific terms today is to gain insight.

The Hebrew words for the inundation in Genesis 6–11 are *mabbul mayim*, meaning a “mighty deluge by waters.” In fact, *mabbul* is used only one other time outside of the Flood narrative—in Psalm 29:10. The whole of Psalm 29 is a poetic rehearsal of the Noahic Flood where God's power reigns even over the torrents. The term *mayim* has application to various waters in other usages, but here it can only be referring to the surges of the great Flood. The two words together—*mabbul mayim*—might best be understood as a “deluge.” No other flood-like event or water crossing can compare.

In the New Testament, the Greek word chosen by the inspired writer is likewise unique. Again, other words are used for lesser overflows, but when the great Flood is in view (such as in Matthew 24:39, Luke 17:27, and 2 Peter 3:6) the Greek specially employs the mighty term *kataklusmos* (from which—as you may have surmised—English gets its word “cataclysm”). Scripture could hardly be more specific. This was definitely no local or ordinary incident but the world-destroying Flood of Noah's day.

Behold, I, even I, do bring a flood of waters [*mabbul mayim*] upon the earth, to destroy all flesh, wherein is the breath of life, from under heaven; and every thing that is in the earth shall die. (Genesis 6:17)

And Noah was six hundred years old when the flood of waters [*mabbul mayim*] was upon the earth. (Genesis 7:6)

The LORD sitteth upon the flood [*mabbul*]; yea, the LORD sitteth King for ever. (Psalm 29:10)

They did eat, they drank, they married wives, they were given in marriage, until the day that Noah entered into the ark, and the flood [*kataklusmos*] came, and destroyed them all. (Luke 17:27)

Whereby the world that then was, being overflowed [*kataklusmos*] with water, perished. (2 Peter 3:6)

Geologic deposits, such as turbidites (sediments laid down by turbulent waters), tempestites, etc., speak of violent water action. Rock types, such as megabreccias, pseudotachylytes, and others, demand a catastrophic cause. The area covered by many of these strata varieties is often continent-wide in scope. Certainly, a past episode of far-reaching, cataclysmic water activity was involved. Without God's supernatural protection, no life could have survived on land, and even in the ocean marine life died *en masse*. Scripture reinforces our geologic interpretations and provides a specific cause. ●

Dr. Morris is President of the Institute for Creation Research and received his Ph.D. in geology from the University of Oklahoma.



FISHY SCIENCE

Careful observations define empirical science. When “modern science” experts teach us about nature, we expect to learn about how our world works.

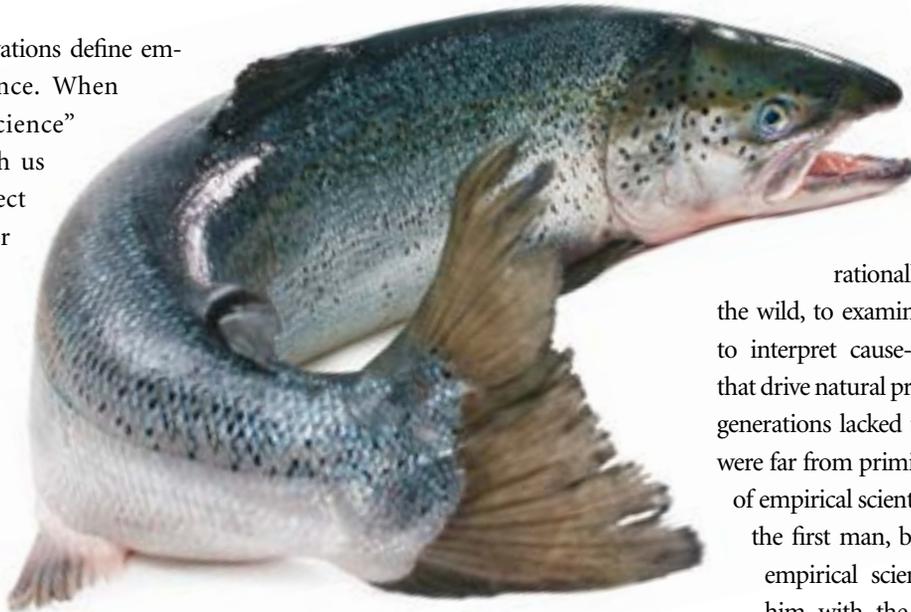
How does snow form and fall? How do birds fly? How do squirrels jump? How do fish swim? The answers require us to look with exacting care and to record what we see with exacting accuracy. Objective observations, carefully reported, qualify such studies as “empirical science,” i.e., seeing the natural world in the present.

For example, consider how Dr. Robert Behnke, a Colorado ichthyology professor, reports the upstream-swimming movements made by salmonids, finfish from the Salmonidae family featuring salmon, trout, and char:

Salmonid fishes have long been admired for their elegant form and the grace with which they are able to swim through the water and leap over waterfalls. All salmonids share the same basic elongated, streamlined shape. Their power is supplied from compact, highly organized muscles that extend the entire length of the body.¹

As 21st-century readers, we anticipate and analyze these kinds of empirical descriptions of animal anatomy and behavior. They match our expectations of modern science. Likewise, we sometimes assume that the careful viewing of creatures in the wild and descriptive reporting of such data will improve upon the primitive understanding of “prescientific” societies.

But there is something *fishy* about that



kind of stereotypical thinking. To illustrate, consider the report of British scientist Gerald de Barry, documenting in detail how salmon catapult themselves as they swim upstream in Irish rivers:

This is how the salmon contrives to leap. When the fish of this species [are] swimming, as is natural, against the course of the water...[and] come to some apparently insurmountable obstacle, they twist their tails round towards their mouths. Sometimes, in order to give more power to their leap, they go so far as to put their tails right in their mouths. Then with a great snap, like the sudden straightening of a bough which has long been held bent, they jerk themselves out of this circular position and so leap from the lower pool to the one above, to the great astonishment of anyone who happens to be watching.²

Wow! That description reports careful observations!

That’s “modern science”—except it’s not modern at all—it was written about 800 years ago, at least a generation before the Battle of Largs ended the Viking Era in the British Isles.

Are these modern-sounding observa-

tions surprising? They shouldn’t be.

Mankind is not evolving. Adam’s race was created with powerful abilities to think rationally, to watch animals in the wild, to examine plants that grow, and to interpret cause-and-effect relationships that drive natural processes. Although earlier generations lacked today’s technology, they were far from primitive dummies incapable of empirical scientific observations. Adam, the first man, became the original, real empirical scientist when God tasked him with the taxonomic labeling of all of the original animals that dwelt in Eden (Genesis 2:19-20). *God* made Adam’s race keen-eyed and “smart from the start”—but when we forget our Creator, *we* play the fool (Psalm 14:1).

Though some imagine brute cave men as our ancestors, Genesis reports the real history of mankind. Thankfully, humans were wonderfully created with intelligent minds *and choice-making wills*, capable of recognizing and receiving (or rejecting) factual information.

Accordingly, as creationists, we should intelligently study the empirical facts about salmonids (and all of nature), and we should also affirm and clarify God’s revealed truth about our own origins in our role as “fishers of men.”³ ●

References

1. Behnke, R. J. and J. R. Tomelleri. 2002. *Trout and Salmon of North America*. New York: Simon & Schuster, 7.
2. de Barry, G. 2004. *Gerald of Wales: The Description of Wales*, Book II. L. Thorpe, trans. London: Penguin Books, 173 (quoting from Gerald’s *The History and Topography of Ireland*, Book II, chapter 42). Gerald died in 1223. For historical perspective, consider that Gerald was an F3 descendant (i.e., great-grandson) of Rhys ap Tewdwr, a political competitor (during 1081) of the famous Viking king William the Conqueror.
3. Matthew 4:19.

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



The Great Commission, as it is known, is broader than many Christians realize. First of all, it involves Christians being sent into all the world. “As my Father hath sent me,” said Jesus to the disciples, “even so send I you” (John 20:21). Then, just before His return to heaven, He told them what they would do as they went: “Ye shall be witnesses unto me... unto the uttermost part of the earth.” But how could they (or we) possibly do such a thing? “Ye shall receive power, after that the Holy Ghost is come upon you,” was His statement (Acts 1:8).

And what does it mean to be witnesses? The actual Greek word also means “martyrs,” so this commission could well involve real sacrifice. But *what* would be the content of their witness? Earlier He told them that “repentance and remission of sins should be preached in his name among all nations” (Luke 24:47). A more succinct and yet more comprehensive statement of His Great Commission had been given on another occasion when He said, “Go ye into all the world, and preach the gospel to every creature” (Mark 16:15).

The gospel we are to preach is, of course, the good news about Christ. That, in fact, is precisely the meaning of the Greek word itself. It is not good advice or good philosophy. It is the wonderfully glad tidings in the record concerning Jesus Christ—specifically who He is, what He has done, and what He will do in the ages to come.

Its central focus is on the substitutionary death of Christ for our sins, His physical burial, and bodily resurrection (1 Corinthians 15:1-4). But it also includes His creation of all things in the beginning (Revelation 14:6-7 calls that the “everlasting gospel”). Furthermore, it includes the promised “hope which is laid up for you in heaven, whereof ye heard before in the word of the truth of the gospel” (Colossians 1:5), as well as everything that God in Christ has said or done in anticipation of His promised heavenly Kingdom.

The most extensive definition of that commission was given

when Jesus met with His first 11 disciples on a mountain in Galilee and said, “All power is given unto me in heaven and in earth. Go ye therefore, and teach all nations, baptizing them in the name of the Father, and of the Son, and of the Holy Ghost: Teaching them to observe all things whatsoever I have commanded you: and, lo, I am with you always, even unto the end of the world. Amen” (Matthew 28:18-20).

Twice in this missionary mandate we note that He stressed the ministry of teaching. The scope of the commandment is indeed extensive; all nations are to be taught, and the teaching is to incorporate everything that Jesus taught.

And even that is not all. There was another great commission given to men and women back at the very beginning of time, and it is still in effect. “Have dominion over... every living thing that moveth upon the earth,” God told our first parents (Genesis 1:28). This primeval dominion mandate necessarily implies comprehensive scientific research into the nature of the earth and all its living creatures—plant life, animal life, human life. Then, for us to “subdue” the earth, as Genesis 1:28 also commands, must involve the development of all kinds of technology and commerce and—especially—education! What is learned and implemented in one generation would be useless if not transmitted to the next generation. That requires the vital ministry of teaching!

When Christ told the disciples to “teach all nations,” the actual language He used was “make disciples in all nations.” A disciple is not just a listener (like a student whose mind may be closed or filled with trivia) but one who is a real learner and user of the information provided by his teacher. The word disciple is obviously related to discipline. True education requires both a disciplined teacher and a disciplined learner. It is appropriate also that the various individual areas of study (science, math, language, etc.) are themselves known as disciplines.

The Vital Ministry of TEACHING

HENRY M. MORRIS, P.H.D.

The “all things” we are to “teach” must clearly include everything that Christ comprehended in both His dominion mandate and His missionary mandate. Remember that our Lord created them all and has paid the price for their full redemption. He has promised that “the [creation] itself also shall be delivered from the bondage of corruption into the glorious liberty of the children of God” (Romans 8:21). This responsibility is further implied in Christ’s command to “preach the gospel,” for, as noted above, the gospel itself also embraces all that Christ is and does and says, from creation to consummation. It is infinitely more comprehensive than just the atoning death and bodily resurrection of the Savior, as essential as these are. Belief in this central core of the gospel, along with personal faith in Christ and His Word, is vitally important and is sufficient for one’s personal salvation—if truly understood and sincerely believed. But this simple gospel is definitely not all that is involved in the Great Commission or in the dominion mandate that the commission incorporates and extends.

The gospel of Christ that we have been commanded to preach, the person and work of Christ of whom we are to be witnesses, and the comprehensive teaching implied in the Great Commission and the dominion mandate involve nothing less than the wonderful plan of God for His entire creation in the eternal ages to come.

No individual Christian can preach or teach all these things. These orders must involve the entire company of His disciples, each using his or her own individual abilities and opportunities to help in the implementation of God’s great plan and doing it faithfully, as unto the Lord.

Furthermore, there is surely more than one type of teaching gift. Teaching the Bible is different from teaching music, for example. Also, teaching middle-school children is very different from teaching graduate students in science or teaching pastoral students in a seminary. But all teaching requires good preparation, sincere interest

in students as well as subject matter, and—for Christian teachers in particular—doing it as unto the Lord. “Whatever ye do, do it heartily, as to the Lord, and not unto men” (Colossians 3:23).

The Lord does not call everyone to be a teacher. In fact, He warns those who are *not* truly called to a teaching ministry against it. “My brethren, be not many masters [same Greek word as teachers], knowing that we shall receive the greater condemnation” (James 3:1).

We need to realize that the dominion mandate still applies to all people, both Christians and non-Christians, whereas the Great Commission is the responsibility of Christians only. The latter, therefore, have a double responsibility in subduing the earth. With respect to science, for example, we not only want to win individual scientists to salvation in Christ but also to bring the sciences themselves under submission to God and His Word. This includes warning students about the deadly fallacies of evolutionary philosophy and secular humanism in general. It applies in an extreme sense to college and university teachers, especially to those teaching science at the graduate level as they prepare our future scientific researchers and educators.

Considering the importance Christ placed on teaching in His Great Commission and its preeminent position among the gifts of the Holy Spirit,¹ as well as its essential importance in implementing God’s dominion mandate, the entire Christian community is surely responsible to provide whatever support is needed to enable these teaching ministries to function effectively. ●

Reference

1. Some of the gifts of the Spirit are listed in Romans 12:6-8, 1 Corinthians 12:28, and Ephesians 4:11. The gift of evangelism is mentioned in only one of the three lists, for example; the gift of teaching is in all three.

Adapted from Dr. Morris’ article “On the Vital Ministry of Teaching” in the January 2004 edition of *Acts & Facts*.

Dr. Henry M. Morris (1918-2006) was Founder of the Institute for Creation Research and received his Ph.D. in hydraulics from the University of Minnesota.





Human and Chimp DNA—Nearly Identical?

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

A: For the past several decades, the standard mantra has been that humans are 98 percent genetically identical to chimpanzees. However, this claim is based on cherry-picked data and does not take into account the vastly different regions of the two respective genomes.

Major research published over the past decade comparing human and chimpanzee DNA was recently reviewed and critiqued.¹ In every single publication, researchers only reported on the highly similar DNA sequence data and discarded the rest—apparently because it was too *dissimilar*. In fact, when the DNA similarities from these studies were recalculated using the omitted data, markedly lower levels—between 81 and 86 percent similarity—were found. Even the well-known chimpanzee genome paper published by evolutionists in 2005 provides a genomic similarity of only about 80 percent when the discarded non-similar data is included and only 70 percent when the estimated size of the chimpanzee genome is incorporated.^{2,3}

In 2011, I tested a wide variety of DNA alignment parameters for 40,000 segments of chimpanzee DNA that were already known to be similar to human. The parameters that gave the longest DNA alignment matches produced 86 percent

similarity.³ Another interesting outcome from this study was that the 740-base-long chimp DNA sequences became too different to align after just a few hundred bases, on average.

Clearly, a more informative technique was needed to accurately compare the entire chimp genome to that of humans—specifically, something that counteracted the problem of the algorithm breaking off the match in regions of low similarity. By digitally slicing entire chimp chromosomes into small pieces, I found that the algorithm could effectively compare chimp and human DNA piece-by-piece.³ This involved doing multiple experiments to find the optimal DNA sequence lengths, or “slices,” to fully ascertain the average overall similarity for each chimp chromosome when compared to its alleged human counterpart.

Not counting the Y chromosome, the results of my comparison showed variability between 66 and 76 percent similarity for the different chimp chromosomes, with an overall genome average of only 70 percent similarity to human chromosomes. In reality, many chromosomal regions are vastly different between chimps and humans, and several areas of the genome that are present in chimps are completely absent in humans—and vice versa.

While it is true that there are sections of the chimp genome that are very similar

to humans, this is not the complete picture. DNA sequence comparisons that include all the relevant data plainly show that the human and chimp genomes are not nearly identical at all. Instead, they are as distinct as one might expect based on the obvious differences in the resulting anatomies and behavioral capacities.

Hypothetical evolutionary processes cannot explain the extremely broad differences between chimp and human DNA when the whole genomes are considered. The similar regions between genomes are easily interpreted as the basic reuse of effective code—a concept very familiar to software engineers. Such evidence points to a Master Designer who has orchestrated all the wondrous diversity of life on Earth after its own kind. ●

References

1. Tomkins, J. and J. Bergman. 2012. Genomic monkey business—estimates of nearly identical human-chimp DNA similarity re-evaluated using omitted data. *Journal of Creation*. 26 (1): 94-100.
2. Tomkins, J. 2013. Comprehensive Analysis of Chimpanzee and Human Chromosomes Reveals Average DNA Similarity of 70%. *Answers Research Journal*. 6: 63-69.
3. Tomkins, J. 2011. Genome-Wide DNA Alignment Similarity (Identity) for 40,000 Chimpanzee DNA Sequences Queried against the Human Genome is 86–89%. *Answers Research Journal*. 4: 233-241.

Dr. Tomkins is Research Associate at the Institute for Creation Research and received his Ph.D. in genetics from Clemson University.



Don't Give...Sow!

H E N R Y M . M O R R I S I V

I learned early on that my grandfather Dr. Henry M. Morris was a great man. Not just a good man, mind you, but a truly great and remarkable man, specially gifted by God to perform a vital work for the Kingdom.

As a child, I was unaware of the many books he had written, the multitudes who had heard him speak, or even of the early formation of ICR. I simply knew that everywhere my grandfather went people would enthusiastically share testimonies about the impact he had made on their lives. Such outpourings of gratitude were genuinely uncomfortable for him. But with a gracious humility that characterized his life, he deflected all glory and praise to God.

The same was true on the subject of giving. As I grew into a young man, he told me on several occasions that he never liked to ask for financial support, believing that God would supply our needs through His people. He rarely wrote on the subject (believe me, I've looked) but when he did, his focus was nearly always on sowing *with* ICR, not simply contributing to our work.

ICR recently republished a rare *Days of Praise* devotional on giving, first written by my grandfather in 1996. His analysis of biblical sowing perfectly expresses the correct desire all believers should have if we truly wish to honor God and His Word. There is simply no better way I could say it, so I'll let our founder speak for ICR.

Not Giving, but Sowing

Henry M. Morris, Ph.D.

"But this I say, He which soweth sparingly shall reap also sparingly; and he which soweth bountifully, shall reap

also bountifully" (2 Corinthians 9:6).

As John Calvin pointed out long ago in expounding this key passage, "we are not *giving*, but *sowing*" when we contribute of our financial means to the work of the Lord, for it miraculously is considered by the Lord of the harvest as seed sown in the soil of the hearts of men.

And it is a rule of the harvest that, other things being equal, the more seed planted, the more harvested. He who is deficient with his seed must necessarily anticipate a meager crop.

Of course, a bountiful harvest presupposes not only an abundance of seed but also good soil, properly prepared, watered, and cultivated. It is no good simply to give money to anyone or any cause any more than it is good simply to throw seed on a rocky slope or city street or weed-infested yard. One is responsible to give where God's Word is honored—not just to give, but to give responsibly.

Furthermore, even though an abundant harvest is promised, the motive in giving is also vital. The harvest is souls—not gold! "God loveth a cheerful giver"—not a conditional giver (v.7). "He that giveth, let him do it with simplicity" (Romans 12:8). Often God does bring financial blessing to a Christian who has proved faithful in the grace of giving, but this is so he can give still more and thus lay up still more treasure in heaven. "For unto whomsoever much is given, of him shall be much required" (Luke 12:48). "Therefore," as Paul said, "... see that ye abound in this grace also" (2 Corinthians 8:7).

And as we give, we must never forget that Christ has given more: "For ye know the grace of our Lord Jesus Christ, that, though he was rich,

yet for your sakes he became poor" (2 Corinthians 8:9).¹

Eight years ago this month the Lord called my grandfather home to heaven. Since that time, God has faithfully supplied for ICR through His people—just as my grandfather believed. As long as ICR continues to honor God and His Word, we trust that you, our supporters, will keep sowing with us through your prayers and gifts to accomplish the work He wants us to do until Christ returns. ●

Reference

1. Morris, H. M. Not Giving, but Sowing, December 4, 2013.

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



Prayerfully

Consider
Supporting
ICR

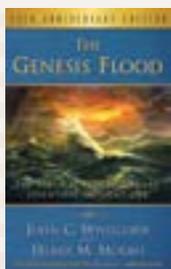
(GALATIANS 6:9-10)

Through

- Online Donations
- Stocks and Securities
- Matching Gift Programs
- CFC (Federal/Military Workers)
- Gift Planning
 - Charitable Gift Annuities
 - Wills
 - Trusts

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

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



I just want to send you a long overdue “thank you” for all the informative material you have put out over the years that upholds the Word of God. I have been getting books, magazines, etc. for 40 years now. It all started with *The Genesis Flood* (John C. Whitcomb and Henry M. Morris). I now am happy to get *Acts & Facts* and your devotional *Days of Praise*. . . . I put *Acts & Facts* and some books in our church library. Thank you so much for your ministry and may God continue to bless you.

—M.H.



I can definitely identify with Mr. Henry Morris IV’s comments in the [November *Acts & Facts*] article “Sowing vs. Foraging” concerning appeals for donations by a constant stream of mail and telemarketers. I

receive hundreds of requests in the mail each year. So, I really appreciated your article and doubly appreciate your policies regarding these issues. *Acts & Facts* is one of [the] few magazines I read through cover-to-cover—it’s great. Thank you.

—T.G.



I would like to say a very heartfelt word of thanks for ICR’s important ministry. I was invited to listen to Dr. Randy Guliuzza. . . . in Las Vegas on November 16, 2013. The need for Genesis to be supported in our churches and schools

is key to the strength of our beloved institutions. Evolution theory on every level is a lie of the enemy that weakens and destroys from the inside as doubt and faintheartedness weaken our testimony. Dr. Guliuzza was an incredible speaker. We. . . enjoyed learning how amazing our God is and also how we can have a reason for the faith that lies within us.

—J.S.



Please pass along a thank-you to Mr. Brian Thomas for his article “Questionable Dating of Bloody Mosquito Fossil” [*Creation Science Update*, November 20, 2013]. I thought it was very well thought out with plenty of rigor behind its claims. Good job, thanks much, and keep them coming, Mr. Thomas.

—B.C.

Our seniors, staff, and parents were extremely blessed and enlightened by our visit [to the ICR campus] yesterday. You [Dr. Henry M. Morris III] and your staff did such a wonderful job of providing an all-around, meaningful experience! Thank you, sir, for taking the time out of a busy day. . . . to teach us and interact with our students. Please pass on our gratitude to Mr. [Frank] Sherwin, Dr. [Nathaniel] Jeanson, and Dr. [Tim] Clarey for their valuable time and presentations. Continued blessings from God on ICR and on all who serve there!

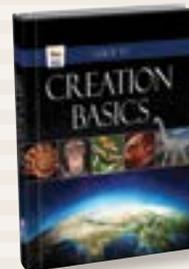
—J.M.



For many years I have been receiving *Acts & Facts* and, more recently, *Days of Praise*. I have used your materials countless times in Sunday school, Vacation Bible School, and in conversations with family and friends. I have never taken the time to write a note and thank everyone at ICR for the wonderful material that you make available to the average layperson like me. So, thank you so much, and may God continue to bless your ministry.

—D.M.

Just wanted to thank you for your dedication to biblical authority and grounded science. I have been teaching my four kids about viewing the world around them through a biblical lens and find your ministry an excellent example of this. I try to share some of the main points with them as their little minds can handle it, so I am excited to see



your new children’s resources [*Guide to Creation Basics* and *Guide to Animals*]. Thanks for holding Jesus high!

—T.T.

Have a comment? Email us at editor@icr.org or write to: Editor, P. O. Box 59029, Dallas, Texas 75229

COMING THIS SPRING!

STRONG IN SCIENCE • STRONG IN FAITH

UNLOCKING THE MYSTERIES OF GENESIS

Announcing ICR's Groundbreaking, 12-Part DVD Series on the
Science of Creation

THE PROBLEM

Today's youth are exposed to overwhelming secular influences. Their questions about creation often go unanswered and many walk away from their faith.

THE ANSWER

Unlocking the Mysteries of Genesis presents new scientific evidence confirming the *truths* found in Genesis and dispelling the *myths* about creation and evolution. Designed to engage this generation with amazing visuals and solid science, this innovative series equips the viewer with answers and tools for affirming and defending the faith.

UNLOCKING THE MYSTERIES OF GENESIS

FEATURES:

- » Interviews with leading experts
- » Insights from cutting-edge research
- » Dynamic host
- » Creative animation
- » Stunning locations and visuals
- » Compelling biblical truths



For more information, go to:

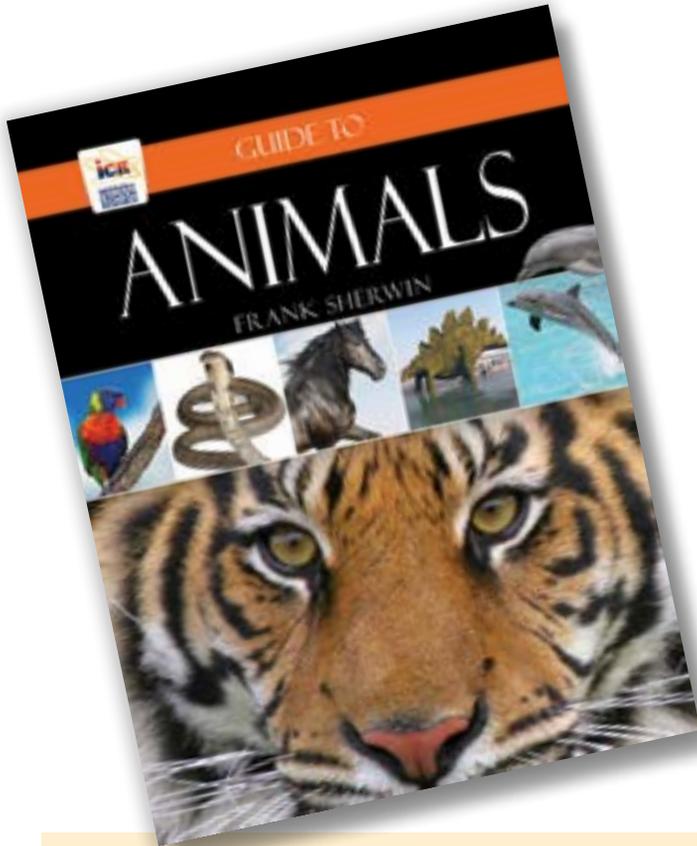
www.UnlockingTheMysteriesOfGenesis.org



P. O. Box 59029, Dallas, TX 75229
www.icr.org

GUIDE TO ANIMALS

FRANK SHERWIN, M.A.



How do fish breathe and birds fly? Why do some animals migrate and others hibernate? And what happened to the dinosaurs and other extinct animals?

Get the answers from zoologist Frank Sherwin in the latest book in ICR's popular *Guide to* series!

This beautiful hardcover edition is loaded with full-color illustrations, fun

facts, and the science about some of your favorite animals in creation!

Topics include:

- Creation of the Animals
- Are Humans Animals?
- Tigers—Big Cats, Small Numbers
- Animals on the Ark
- Designed for Flight
- Snakes—Limbless Land Animals
- Dinosaurs—"Terrible Lizards"
- Fossilized Animals
- Sharks—Vertebrates with No Bones
- Camouflage
- Extreme Habitats
- Horses—Animals Built for Work
- And special sections dedicated to dolphins, monkeys, penguins, dogs, cats...and many more!

\$16⁹⁹ plus shipping & handling

BGTA — Hardcover

To order, call 800.628.7640 or visit www.icr.org/store

Also available for the Kindle, Nook, and through the iBookstore.

