



SKUNKS

Interesting and Fun!!

by
Jerry Bergman

We seldom reflect on how interesting skunks can be. The nine identified skunk species are notorious for their scent glands that can accurately shoot noxious oily amber spray as a defensive weapon. Two glands, one on each side of their anus, produce the spray, which is a complex mixture of sulfur-containing chemicals. The pungent spray causes irritation to the skin like pepper spray, even temporary blindness—which may be why skunks often try to target the face (Schuster, 1992, p. 34).

Skunk spray is composed primarily of three low-molecular-weight thiol compounds that are detectable by a human's smell at concentrations of a mere ten parts per billion. Muscles located next to the scent glands allow skunks to spray as far as three meters with a very high degree of accuracy, usually right into the enemy's face!

Their chemical defense is very effective, as illustrated by this extract from Charles Darwin's *The Descent of Man* book where he wrote that most

animal scents function as sexual attractants, noting that one exception was “the notorious skunk of America, [of which] the overwhelming odor which they emit appears to serve exclusively as a means of defense.” (1871, p. 279).

The spray odor is so strong that it can be detected by humans up to 1.6 km down wind. A skunk's spray is powerful enough to ward off most potential attackers, even those the size of bears. Ironically, skunks, shy creatures about the size of a housecat, have very few enemies, and rarely need to use their spray to protect themselves (Swanson, 2010). When they do decide to target a potential aggressor they firstly give clear warning, including raising the tail, arching the back, and stomping the feet before spraying (Schuster, 1992, p. 34).

Their unique jet black fur contains wide white stripes shaped like the letter V prominently displayed on their back or variations on this theme depending upon the species. This trademark pattern is very effective in signaling other



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More Fabulous Insights from Dr. Baumgardner

Dr. John Baumgardner addressed large appreciative crowds at CSAA's Creation Weekend in October 2016. Following his introductory lecture on Friday evening (“How language powerfully affirms God's reality”) [described in the previous issue of *Dialogue*], he continued the next morning with “Mendel's Accountant: Why Darwinism Fails”. This work resulted from a collaboration with geneticist Dr. John Sanford of Cornell University. Many people in modern society find Darwin's conclusions extremely appealing: the idea that competition in

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NEW

Great Apologetics Booklet

Most Christians, while concerned about conflicting interpretations of how God created, do not have the time to read lengthy discussions on the issue. This leaves them with few tools to evaluate competing explanations which they may hear in church and school. It was to provide a brief but well documented defense of the traditional reading of Genesis, that mathematician Dr. John Byl (professor emeritus from Trinity Western University) and applied statistician Dr. Tom Goss (adjunct professor at Summit Pacific College in Abbotsford, B.C. and statistical consultant to federal government departments in Ottawa), collaborated on this 42 page booklet, *How Should Christians Approach Origins?*

The booklet proceeds in brisk fashion from worldview issues such as the relationship of science to miracles, to chronology questions such as the dating of fossils and the length of the days of Creation.

As far as a rationale for studying science, we read “The cultural mandate, which appointed man to be God’s steward over creation (Genesis 1:28), provided motivation for studying nature and applying that study towards practical ends, glorifying God for His wisdom and goodness.” (p. 12 – 13)

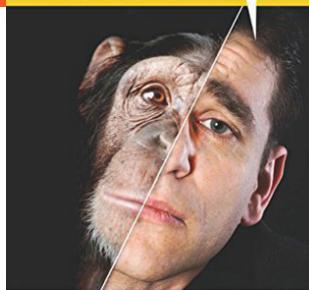
In their overview of the issues, the authors discuss operational and historical science, God as the ultimate reality, God as truth, the Biblical teaching about Adam, the implications of questioning the Biblical Adam, the reasons to reject that myths of the Ancient Near East in any way contributed to Biblical revelation, comparisons of human and chimp DNA, the origin of natural evil, and finally a brief overview of the positions of certain influential theologians on the issue of origins.

Towards the end of the booklet, the authors assure us that: “Worldviews come as package deals; they are all-encompassing systems. One cannot simply mix and match. Compromising Christianity with naturalism introduces a logical inconsistency that will eventually undermine our commitment to God and His Word.” (p. 35)

This book is an ideal reference for pastors, church youth leaders, and everyone whose life is impacted by evolutionary arguments.

John Byl and Tom Goss. 2015.
How Should Christians Approach Origins.
Word Alive Press, Winnipeg, 42 pages.

HOW SHOULD
CHRISTIANS
APPROACH
ORIGINS



JOHN BYL TOM GOSS

 Dialogue

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Nothing New under the Sun

Ever since the efforts of mankind at the tower of Babel, when the people sought to construct their own society based on their own agenda, the search for the perfect man-devised society has continued through the centuries. Indeed, since the advent of Enlightenment thinking in Europe in the eighteenth century, secular mankind has placed a particularly high value on his ability, based on reason alone, to find solutions to social problems. Recently we saw an example of this attitude in the pronouncements of Neil deGrasse Tyson, director of the Hayden Planetarium in New York City. This man is the philosophical successor of Carl Sagan who declared: “The universe is all there is, or was, or ever will be” (in his famous *Cosmos* series on the history of the universe). More recently Dr. Tyson has hosted a remake of Sagan’s *Cosmos* series for public television.

With this background and these attitudes, it is not surprising that Dr. Tyson has recently spoken in favour of a human society based exclusively on reason, a jurisdiction which he calls Rationalia. On Wednesday June 29, 2016 Tyson tweeted “Earth needs a virtual country: #Rationalia, with a one-line Constitution: All policy shall be based on the weight of the evidence.” A little critical thinking has led commentators, both secular and Christian, to declare that Tyson’s idea was most ill-advised.

Thus journalist and sociologist Jeffrey Guhin declared in *New Scientist* (July 6, 2016) that “a rational nation ruled by science would be a terrible idea.” He further declared that Tyson’s suggestion is a perfect example of scientism, where scientism is defined as “the belief that all we need to solve the world’s problems is -- you guessed it -- science.” He continued “People sometimes use the phrase ‘rational thinking,’ but it amounts to the same thing. If only people would drop religion and all their

prejudices, we could fix everything.” Mr. Guhin continued that in recent decades many among the educated elite have hoped that science “would do more than simply provide a means of learning about the world around us. Science should tell us how to live ...” But, says Mr. Guhin, the track record of science in this regard is terrible. He points out that the secular utopians of the twentieth century brought us eugenics, social Darwinism, racism and phrenology (where the size and shape a person’s skull was used to determine their character and potential for success in life).

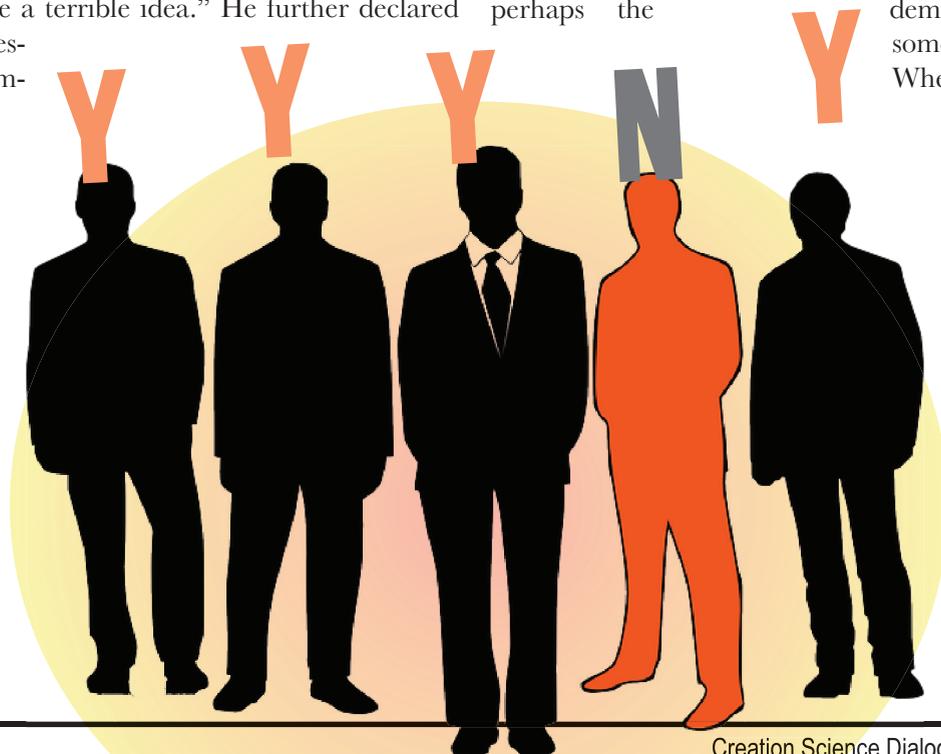
What people who naively put their faith in science do not realize, said Mr. Guhin, is that scientific data needs to be interpreted. On its own, it does not point to any specific conclusion and what we think science is telling us, is based on our present day philosophical biases. Thus Mr. Guhin concludes that the potential for science to tell us how to live and what to think “simply requires insights and wisdom well beyond what science can provide.”

It may be easy enough to critique the views of a controversial figure like Neil deGrasse Tyson, but influential social scientists from around the world are promoting the concept of a new world order based on science. Like the builders of the Tower of Babel, these people imagine that a unified mankind can achieve the best society possible. In this context these people consider that in order to achieve the good life, we must exclude God, eliminate religion and perhaps the

democratic choices of some local governments. When it comes to problem solving on this scale, there is only one universal solution possible and all must bow before it.

A commentator on the issue of universal social progress and sustainable living

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animals to avoid them, which most do. As a result, it is said that skunks fear neither man nor beast. A common reason for a skunk's discharge is that it has been struck by a vehicle.

When I was a chemistry graduate student at Miami University, wild skunks were very common on the campus. They went about their business, as we did ours, and rarely ever sprayed students. Skunks are important pest control machines—consuming mostly many kinds of insect pests and harmful worms, even small frogs and rats (Steep, 2014, p. 16).

Skunks as Pets

Skunks make ideal pets. When bred to be docile creatures, not like wild skunks, they are affectionate, friendly,

entertaining, playful, clean animals that use a litter box like a cat. As is true of most mammals, the more a baby skunk is handled, the more docile it will be as an adult. Baby skunks like to snuggle inside a T-shirt to be close to their owner. When agitated, the owner has to protect them and calm them down. They also like to sleep with their people as do dogs.

Skunks are sensitive, intelligent animals. Highly curious, they can even open unlocked cupboards and they have excellent smell. They can even smell something that was spilled on a carpet long ago and may attempt to dig into the carpet to find out what was buried there. Their own spray, however, although overwhelmingly repulsive to most animals, does not usually bother them unless they are shot directly in the face.

Skunk kits are born blind, deaf, and covered with a layer of soft fur. Their eyes open after about three weeks, and about two months after birth they are weaned. The mother is very protective of her kits, spraying intruders at any indication of danger. The kits generally stay with their mother until they are about one-year-old when they are ready to mate. The father plays no part in raising the young. As adults, unless a mother has young kits, or has been reared to be a pet, skunks are very solitary animals (Miller, 2015).

Skunk Evolution?

Skunks and the African Zorrilla are the only known mammals that protect themselves by a powerful foul smelling spray gun. The zorrilla (*Ictonyx striatus*), also known as the striped polecat, is a single species in the Mustelidae family. Both zorrillas and skunks are nocturnal, but skunks spend their day in the burrows that they dig, and polecats more often sleep their days away in hollow trees or rock crevices. The body markings in the African species are somewhat similar to the black and white pattern of American skunks. Although both skunks and zorrillas defend themselves by spraying, the zorrillas' spray is judged to be much stronger.

In spite of having an apparently similar spray weapon, those of the South African zorrillas and of skunks are actually so different from each other that evolutionists conclude they independently evolved their complex spray weapon systems. Darwinists

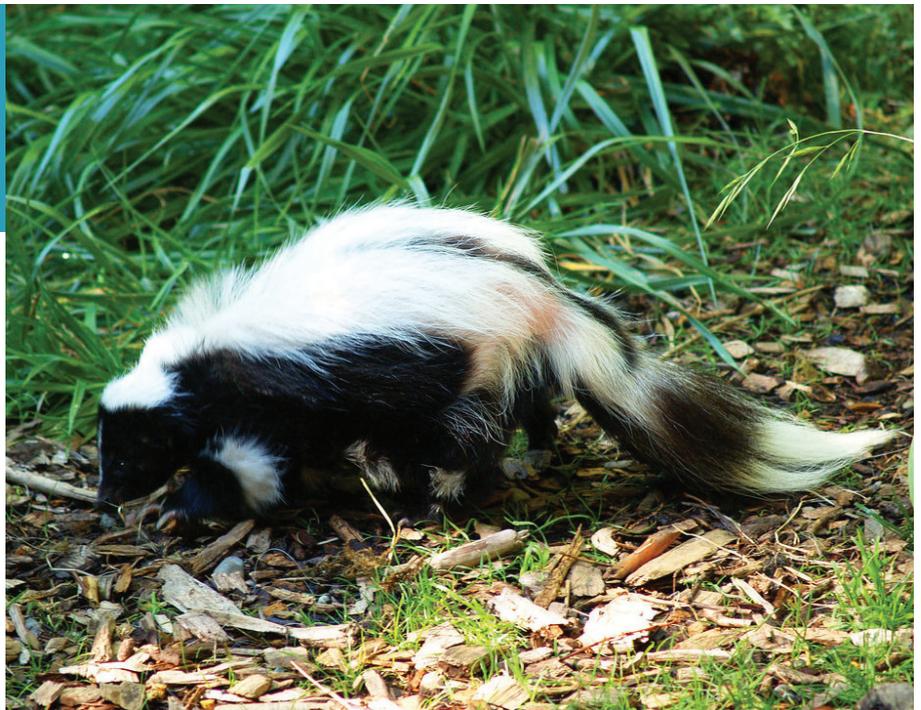


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have been unable to explain the evolution of their complex spray system. The problem is, the system is totally useless until all of the required components are present and properly assembled including the behavioral responses. The system also must include the proper mixture of the many ingredients in their special spray compound (Miller, 2015).

As is the case with many insects, it has even been difficult to classify skunks in an evolutionary taxonomy (Schilthuizen, 2014). The former conclusion was that skunks evolved from a common ancestor with weasels and polecats over 40 million years ago (Stankowich, et al., 2014). Thus, they were consequently classified as a subfamily of the weasel family until genetic evidence disproved this conclusion.

Due to the new genetic research, evolutionists now admit not only that their traditional skunk classification is in serious doubt, but that no other mammal has been found to be even close. Consequently, taxonomists were forced to place skunks in their own separate taxonomic family (Mephitidae as opposed to family Mustelidae for polecats). (Dragoo and Honeycutt, 1997). Indeed, skunks and their complex spray gun system, seem to literally have come into existence from nowhere. The skunk is thought by evolutionists to have evolved from 32 to 34 million years ago but, as far as we can tell from the fossil record, the first skunk was fully a modern skunk (Miller, 2015, p. 168). Maybe



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now we will look at skunks with more interest and appreciation rather than disapproval and disgust!

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More Fabulous Insights from Dr. Baumgardner

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nature ought to lead to organisms better suited to the environment. While this is reasonable, there are limits to how far this idea can take us.

Darwin had supposed that organisms could acquire characteristics as the need arose. However this man did not understand the random nature of mutations (changes to the genetic information in an organism). Once the concepts of random genetic mutations and Mendel's laws of inheritance were combined, neo-Darwinism (which combined these ideas) became the favoured new paradigm. More recent studies however have revealed that natural selection does not effectively eliminate most bad mutations from a population and almost all mutations are bad. Although most changes in the genetic material are of small effect, over time their combined effect can be major. One geneticist, Motoo Kimura (1924-1994) proposed genetic drift, the accidental elimination of mutations rather than selection, as a way to eliminate some of the negative mutation load.

It was to study this situation that Drs. Sanford and Baumgardner collaborated to produce a computer model that would demonstrate the effects of various levels of mutation and selection on populations. Inserting dif-

ferent values into the equations enabled the scientists to plot the effects at various population sizes, numbers of offspring, proportion of females and mutation rate. In view of the shockingly high rate of mutations observed in people today (anywhere from 50-300 mutations per person per generation), these models revealed that fitness declines drastically with time and that after only 200 generations, the human population could well exhibit only 68% of the original fitness. Obviously such studies demonstrate that descent with modification does not lead to evolutionary improvement, but actually to a downward trend in population fitness.

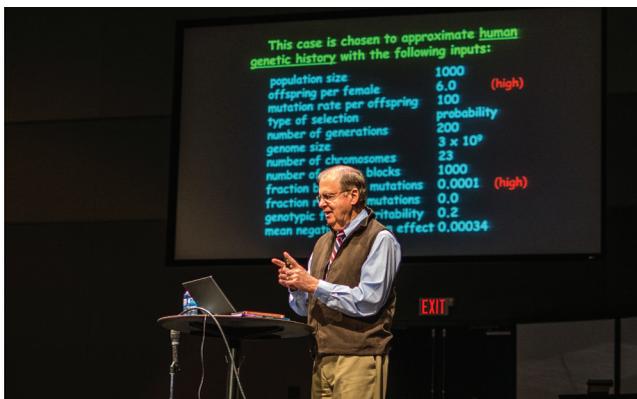
During the afternoon session, entitled "Human DNA comparisons strongly affirm Genesis history", Dr. Baumgardner discussed how mitochondrial DNA (mtDNA) allows scientists to trace the history of early human populations. Initially there were 2 parents and from their descendants a population explosion resulted. However this population was later reduced to 8 persons (termed a bottleneck). Later the population recovered somewhat, only to be split into 3 major groups or cultures as a result of Babel.

Mitochondria are tiny structures which act basically like furnaces inside living cells, providing energy to maintain life processes. All the mitochondria which a person inherits, come from the mother. Since mitochondria contain a small ring of genetic mate-

rial or DNA, then any differences in the mtDNA between direct descendants come from mutations rather than recombination which does not occur. From the patterns of differences in mtDNA between populations, scientists attempt to plot the history of those populations. Patterns of variation which many groups share in common, naturally are from an older time when there was just one population. Differences between groups come from more recent times.

Dr. Baumgardner discussed how Eve's original mtDNA sequence can be discerned from comparisons of world populations. More recently there appeared three population clusters possibly reflecting descent from the wives of Shem, Ham and Japheth. Many people attending this lecture were fascinated to learn the kinds of studies which are possible from mtDNA patterns of variation in human populations.

The keynote lecture in the evening was entitled "How God used a Farm Boy from Texas to develop World Class Science." Dr. Baumgardner began his lecture with an account of his experiences with steers and sheep as a youth in the 4H program in Texas. Later he studied electrical engineering in Texas and at Princeton. Following service in the Air Force and with Campus Crusade for Christ, he enrolled in a doctoral program in geophysics at UCLA. He had observed many occasions when university professors used evolutionary arguments to encourage



Christians to reject their faith. An important component of these discussions was the nature of Noah's flood. The young John Baumgardner realized that the flood must have involved planet-wide catastrophic events in the earth's crust. He determined to study the nature of those events.

John Baumgardner had never taken a single course in earth science, yet he set out to develop a three-dimensional model of the motion of the earth's surface during the flood. [For a technical introduction see Baumgardner.1994. Computer Modeling of the Large-Scale Tectonics Associated with the Genesis Flood. Third International Conference on Creationism.] [for nontechnical discussion see Tim Clarey. 2016. Embracing Catastrophic Plate Tectonics. Institute for Creation Research] The Baumgardner model divided up the globe's surface and

mantle into 1.3 million cells. For each cell he calculated changes in such parameters as temperature, stress and density. What happened in one cell impacted all the nearby cells. His model involved the simultaneous calculation of 5.2 million equations. Obviously this required massive computing power. He worked with mathematicians from Los Alamos National Laboratory and UCLA. The success of his model (TERRA), which was years ahead of any similar model, thrust him into international circles. Once the model was functional, his professors created a permanent position for him in the theoretical division (most prestigious) and they allowed him to work half time on his own project, which was of course flood geology.

Many interesting insights concerning the possible onset and progress of Noah's flood have been discovered

from running the TERRA computer program. Dr. Baumgardner has used the model more recently to demonstrate how the large volume of fossil-bearing sedimentary rock could be deposited onto the continents and what was the source of that sediment in such a short time span. [See John Baumgardner. 2016. Numerical Modeling of Large-Scale Erosion, Sediment Transport, and Deposition Processes of the Genesis Flood. *Answers Research Journal* 9:1-24]

Thus Dr. Baumgardner continued his objective to demonstrate the failures of common evolutionary arguments raised in many circles against the knowledge of God. The hope is that Christian young people will prepare themselves to counter the onslaught of evolutionary arguments promulgated by professors and society in general.

Nothing New under the Sun

by
Margaret Helder

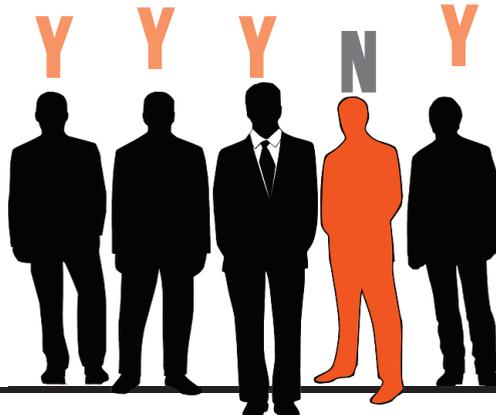
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declares in the journal *Nature* (June 30, 2016) that "Modern science and technology have been nurtured by the fervent belief that they lead to social progress." It has become clear however that science is not producing the desired benefits. Part of the problem, these advocates for social change say, stems from "The absence of a positive and cohesive long-term vision of whatever we could collectively aim for [and this] is one key factor responsible for this helplessness and impotence." In order to alleviate this situation, 300 social science and humanities scholars from around the world have convened a new panel called the International Panel on Social Progress (IPSP) coordinated by a related foundation in Paris and by Princeton University in the United States.

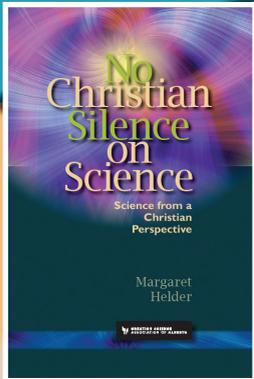
This new panel considers that when it comes to global issues like climate change, the decisions of democratically elected governments should be condemned, they suggest, if these choices do not agree with the objectives of mainstream science. To the end that this panel

hopes to propose universal solutions for all societies around the world, we might expect that few aspects of life will be left untouched. One group of these scholars has the objective to propose transformations (change) in economic aspects of life, another group will propose change in methods of government, and the last will examine how to change cultures and values. Everything is on the agenda, religions, families, health and education. Nothing is considered sacred. All our thinking can be changed, they suggest, in the interests of social progress and environmental responsibility. It is certainly interesting that these experts believe that religious faith, which determines one's entire worldview, can or should be changed on the say-so of an international group of scholars. Like the people at the Tower of Babel, man thinks he can fix everything by eliminating God from the equation and doing it all on his own.

Thus as we encounter secularizing influences locally and internationally, it is good to remember that there is nothing new under the sun. The reflections of the current international panel should not surprise us at all. We will continue to critique scientism in all its manifestations and to defend the Christian worldview.



You can buy education, but wisdom is a gift from God!



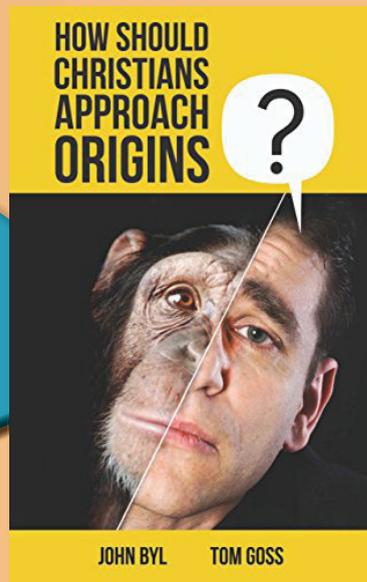
No Christian Silence on Science

Margaret Helder

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How Should Christians Approach Origins?

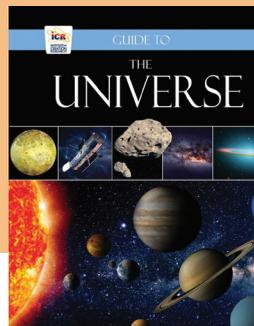
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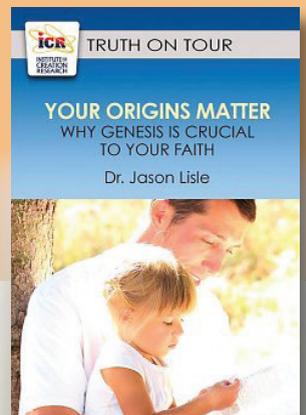
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