The Galapagos Islands: Evolution’s Sacred Ground

Dr. Bohlin helps us understand the significance of the Galapagos Islands in the birth of the evolutionary theory of Charles Darwin. Based on personal observation on these unique isolated islands, he explains why he is not convinced that the animals of these islands make a case for the evolution of all living things.

What’s So Important About the Galapagos Islands?

The Galapagos Islands are located in the Pacific Ocean, 650 miles off the coast of Ecuador in South America. They are isolated from any other island group or land form.

What’s so important about the Galapagos Islands? Here are four reasons:

First, because they are extremely isolated, the Galapagos Islands are home for dozens of species of both plants and animals found nowhere else in the world. The Galapagos Tortoise, for example, is the largest reptile found anywhere on the planet, and it lives longer than any animal known to man. The oldest is currently over 170 years old and lives in a zoo in Australia. Other unique animals include the Flightless Cormorant, the Marine Iguana, the Galapagos Penguin, and Darwin’s Finches.

There are even unique forms of plants including numerous forms of cacti and at least thirteen species of sunflower or daisy-like plants, one of which is a “sunflower” tree with bark and no tree rings.

Second, Darwin’s visit to the Galapagos for five weeks in 1835

on the HMS Beagle provided the starting point for the development of his theory of natural selection. Darwin had believed that God individually created each species. However, when he saw and studied variations between similar species from island to island, he correctly reasoned that a natural process made more sense. However, he eventually threw the baby out with the bathwater by reasoning that all species arose by a natural process through natural selection. Darwin's Finches continue to be used as a textbook example of evolution today.

Third, similar to the Hawaiian Islands, the Galapagos Islands are volcanic. There is a geological hotspot deep in the earth's crust underneath the Pacific tectonic plate where magma flows to the surface. The hotspot remains stationary. However, as the Pacific plate moves from west to east, new volcanic islands begin to appear beneath the sea until they eventually poke above the surface to create a new Galapagos island. The youngest of the islands is the island of Fernandina which is the westernmost island. It is estimated geologically to be 800,000 years old. The oldest islands off to the east are estimated to be 3 million years old.

Fourth, two major ocean currents affect the climate of the Galapagos. First, from the south comes the Humboldt Current from Antarctica. Second, a deep-water current comes from the west. Upon reaching the islands, this cold deep water current brings with it a large supply of nutrients that feed the bottom of the food chain. Consequently the western waters of the Galapagos are colder and richer in marine life. These cold-water currents keep the temperature of the islands rather moderate for islands on the equator. In the Galapagos, the waters usually range from the 60s to the 70s F (15-22 degrees Centigrade), creating a more temperate climate for these equatorial islands.

All these factors combine for a most unique experience. The Galapagos have been a "poster child" for evolution ever since Darwin. We'll see how well that holds up.

What Evidence of Evolution Do Darwin's Finches Provide?

Click to see Ray's picture report of his trip to the Galapagos Islands

In May 2003 I had my first opportunity to visit the Galapagos Islands with a group led by several scientists from the Institute of Creation Research. Our goal was simply to see for ourselves many of the unusual animals and plants which so heavily influenced Darwin in the development of his theory of natural selection.

Look in almost any high school biology textbook and you will find some mention, if not a whole section, on what are now known as *Darwin's finches*. Darwin's finches are comprised of thirteen different species of small finches that arose from a single species that colonized the islands. The finches have adapted to differing food sources ranging from different size seeds, to insects, to cactus flowers, to even blood. The major feature of these finches that has changed is the size and shape of their beaks, but the differences are very subtle.

When we got our first glimpse of the finches we found out just how subtle the differences in beak size and shape really are. Without being able to compare two or three birds right next to each other, we found it virtually impossible to identify them. This observation confirms recent research by Princeton researchers Peter and Rosemary Grant. The Grants have come to the Galapagos Islands every year since the mid-1970s. They have banded, measured, and weighed literally thousands of

finches of nearly all species.

Of the thirteen species, six are called ground finches, and they feed on different size seeds and cactus flowers. These finches particularly differ almost exclusively in their beak size or shape. The Grants have found that these finches will "evolve" to larger and smaller beaks depending on the seed availability based on a wet or dry rainy season.

They also learned that most of these six ground finches will interbreed, and the hybrids are fertile, meaning they can also breed among themselves. This information is quite startling because it means that these six species may actually be one species. And the actual degree of change is quite miniscule. The average beak size may change by only a half a millimeter from dry to wet season. These six finches are also indistinguishable in their mtDNA.

These species are so similar in the field that some of the workers and guides from the Darwin Research Station on the Galapagos have a saying: "Only God and Peter Grant can identify Darwin's finches."

As an icon of evolution, the finches are far less than hoped for.{1} Yes, they do document the reality of natural selection. But the degree of selection is quite small and seemingly insignificant. They are a wonderful example of the ability God has given His creatures to be fruitful and multiply in a fallen world.

Why Save the Galapagos Tortoise?

The word Galapagos is Spanish for *saddle*. The islands were named for a particular variety of Galapagos tortoise known as the saddleback. These tortoises inhabit the drier islands and feed primarily on many varieties of prickly pear cactus. The saddle refers to a striking feature of their shell that forms a large space just above the neck that allows the tortoise to

reach high to grab a succulent piece of cactus.

Since the islands were named for the saddleback tortoise they are a symbol of the islands. As I mentioned earlier, these tortoises are the largest living reptiles. They are also the longest living animals in the world. There is a female Galapagos tortoise in a zoo in Australia by the name of Harriet. Harriet was reportedly taken from the Galapagos Islands by Charles Darwin himself. She eventually was taken to Australia and is reported to be 173 years old, born around 1830. This would make her the oldest living creature on earth.

Harriet is a dome tortoise as opposed to the saddleback variety. Dome tortoises eat low-lying grasses, vegetation and fruits. When Darwin came to the Galapagos Islands in 1835, there were approximately 300,000 tortoises on eleven islands. There are five different varieties on the largest island, Isabella. The five varieties are found associated with the five large volcanic craters where water accumulates and grass is abundant. The other ten varieties inhabited a specific island, one variety of tortoise per island.

The islands were a favorite stopping place for whaling ships and ships crossing the Pacific. Sailors would come on shore and round up twenty to thirty tortoises to be used as food on the long voyage. A tortoise could remain alive with little or no food or water for months, providing fresh meat for the long voyage.

In addition, as people began colonizing the islands, they brought with them rats and mice that would eat the tortoise eggs. Introduced goats and pigs competed with the tortoises for food. Consequently, the tortoise population has been reduced to around 20,000. Some of the specific island varieties have gone extinct. Lonesome George has become the symbol of the plight of the giant tortoise. He is the only remaining member of the tortoises from Pinta Island, and he seems to be refusing to breed.

The Darwin Research Station on Santa Cruz Island in the Galapagos is involved in an extensive captive breeding program, trying to reestablish the tortoises in areas where they have disappeared. But why? If evolution is true, then let natural selection take its course. If they survive, fine. If not, that's just life in an evolutionary world. In Genesis, however, we are commanded to have rule and dominion over God's creatures. Wherever practicable, we have a biblical mandate to preserve the creatures He has made in the environment He provided for them (Psalm 104). So the Darwin Research Station is unwittingly acting on a Biblical worldview.

Strange Creatures of the Galapagos

Though the Galapagos Islands are world famous, they didn't particularly impress Darwin when he first arrived. In his book, *Voyage of the Beagle*, he wrote, "Nothing could be less inviting than the first appearance. A broken field of basaltic lava, thrown into the most rugged waves, and crossed by great fissures, is everywhere covered by stunted, sunburnt brushwood, which shows little signs of life."{2}

Though we may disagree with Darwin on many of the conclusions he drew from his observations of the Galapagos wildlife, he was nonetheless an excellent observer and rather humorous reporter. For instance, one of the well-known inhabitants of the Galapagos is the marine iguana, the only lizard in the world to feed in the sea. Darwin described it this way,

> *"It is extremely common on all the islands throughout the group, and lives exclusively on the rocky sea-beaches, being never found, at least I never saw one, even ten yards from shore. It is a hideous-looking creature, of a dirty black colour, stupid, and sluggish in its movements."{3}*

Darwin aside, these creatures are fascinating. They feed on algae and seaweed close in to shore. They swim easily with a

serpentine movement with their limbs tucked close to their body. Since the water is so cool, they need several hours to sun themselves before entering the water for breakfast. They will only stay in the sea for about twenty minutes and never longer than an hour. When warming themselves, they lie perpendicular to the sun so their body is fully exposed to the sun. When maintaining their temperature they will face the sun directly and lift their chests off the ground to allow the sea breeze to provide ventilation.

The marine iguana's cousin, the land iguana eats cactus pads and leafy vegetation and never ventures toward the sea. They also didn't impress Darwin terribly much. He described them this way.

> *"We will now turn to the terrestrial species, . . . Like their brothers the sea-kind, they are ugly animals, of a yellowish orange beneath, and of a brownish red colour above: from their low facial angle they have a singularly stupid appearance. . . . In their movements they are lazy and half-torpid."*{4}

Evolutionists suggest that these two species derived from a common ancestor over ten to twenty million years ago (although the oldest island is only 3 million years old!). But we learned that these two species would interbreed on occasion. The hybrids live for only seven to eight of the usual forty years, and their eating habits are strangely intermediate. The hybrids will eat cactus but not leafy vegetation, and will eat seaweed and algae but only at low tide when they can scramble over the rocks to get it. They won't enter the water. This level of hybridization makes it unlikely they are as old as evolutionists suggest.

Evidence for Evolution on the Galapagos

Islands?

Thus far we have reviewed some of the amazing animals and plants found on the Galapagos Islands in the Pacific Ocean. The mockingbirds, tortoises, and finches played a role in the formulation of Darwin's theory of natural selection. The Galapagos Islands and their varied and diverse wildlife continue to serve as examples of evolutionary change.

In my brief five-day visit to the Islands, I made a number of observations that cast doubt on the evolutionary significance of these islands.

Earlier this week we talked about Darwin's finches. These thirteen finches most likely are descended from a flock of more than thirty finches that colonized the islands about 2 million years ago according to evolutionists. They vary considerably in their beak size and shape as they have adapted to different food sources. As much as these finches have been studied, there is still a great deal we don't know.

For instance, we know nothing of the genetics of beak size and shape. It's certain that beak size is a heritable trait, but just what the genetic cause of the variation is, we don't know. As we said earlier, there may be as few as six actual species of finches on the islands, not thirteen. The changes in beak size and shape may simply have been due to genetic variation the original flock carried with them to the islands in the first place.

The changes between species are very small as we found out trying to identify them. The selection that has been documented varies only from dry to wet years and no overall trend has been observed. So Darwin's finches are not much of an example of evolution after all.

Another strange creature on the Galapagos Islands is the flightless cormorant. Cormorants are birds that inhabit the

shores of lakes, rivers, and oceans. They usually feed by diving into the water for fish. Cormorants will then perch above the waters surface and dry their feathers by holding their wings out for maximum air exposure. Flying requires dry wings.

The flightless cormorants of the Galapagos have wings so reduced that they are unable to fly at all. They catch fish by swimming in the water much as a penguin does using their large powerful feet for propulsion. The reduced wing size is probably due to a single mutation that short-circuits wing development in the cormorant chick. The change is indeed quite dramatic, but the change involves a loss of a feature, not the gain of a new adaptation. This is often the case in the origin of new adaptations. Something is lost, not gained. Evolution must be able to explain the gain of new features, not simply explain how an organism managed to survive when it lost an important structure. So even the dramatic case of the flightless cormorant is not real evidence for evolution.

The Galapagos are a naturalist's wonderland. They guard their mysteries in a shroud of isolation and time. They are a good example of the fact that there is much to learn about the world God created.

Notes

1. Jonathan Wells, *Icons of Evolution* (Washington, DC: Regnery Publishing 2000), p. 159-175.

2. Charles Darwin, *The Voyage of the Beagle*, Harvard Classics (Cambridge: Harvard University Press), p. 377-378.

3. Ibid, p. 390.

4. Ibid, p. 392.

“Can’t Homosexuality Be Seen as Population Control?”

From an evolutionary perspective, wouldn’t homosexuality be seen as a population control? This would then make it useful, contradicting to your assumptions made in the obviously biased partial commentary.

Many evolutionary biologists have wrestled with the widespread presence of homosexuality in human populations. Essentially, their quandry is not that homosexuality is present in large numbers (2-3% at most in any population), but that it is found in virtually all cultures and societies at least to some degree. Evolutionarily, this implies that there is some evolutionary benefit and some genetic component, which usually means it contributes to survival and reproductive success in some way. But how can that be when homosexuals reproduce at a far lesser rate than heterosexuals? The original sociobiologist, E. O. Wilson, stated the problem this way: “The homosexual state itself results in inferior genetic fitness, because of course homosexual men marry much less frequently and have far fewer children than their unambiguously heterosexual counterparts.” (*Sociobiology: The New Synthesis*, Belknap/Harvard, 1975, p. 555.) Evolutionary explanations require an immediate genetic benefit for the individual expressing the trait or behavior. Things such as “population control,” as you suggest, require a cooperative spirit (technically referred to as group selection) that is normally considered outside direct genetic influence and is therefore rejected by most evolutionary biologists.

Most evolutionary biologists have tried to deal with the problem by one of two suggestions. First, the genes involving

homosexuality (if there are indeed any at all, but so far there is no evidence for any) could be advantageous somehow in the heterozygous state (individuals who have one copy of a gene leading to homosexuality but not both and therefore not truly expressing the trait), and therefore the gene or genes are kept in the population that way even though when both copies are expressed in the same individual (homozygosity) reproduction is prevented. Second, some have suggested that homosexuals may gain a genetic fitness by being primarily helpers in raising offspring of their brothers and sisters, therefore preserving their own genes through aiding the survival of their nieces and nephews who carry about 1/8 of their own genes (technically referred to as kin selection). Aiding the survival of eight or more such nieces and nephews preserves a full complement of your genes into the next generation which is how natural selection supposedly works. Both of these options may at first sound reasonable but, neither of these options has a shred of evidence in support of it.

Respectfully,

Ray Bohlin, Ph.D.
Probe Ministries

“How Do Christians Respond to the Fact of Evolution?”

After reading one of your articles on Creation vs. Evolution I understood every aspect of their respective arguments, I was just a little a confused as far as Christian responses to the arguments. Do Christians acknowledge evolution but then just say that God has pre-ordained this evolution to happen? Or do

Christians just ignore the fact that evolution exists? Maybe I am making this too complicated. If Christians can see that an organism changes over time to adapt with the environment for absolutely no apparent reason, does this mean that they acknowledge this change happened for no apparent reason thus evolution, or just that God made this change possible?

Christians respond differently to the questions you propose. Some Christians, indeed, suggest that God ordained the evolutionary process as His means to create. These usually refer to their position as *theistic evolution* or *evolutionary creation.* As far as I know, no Christian ignores that "evolution" happens. All recognize microevolution as a real process in response to environmental change. This does not require mutation or the establishment of new genetic or morphologic systems. Change over time is only one form of evolution, which no one objects to. What we believe there is insufficient evidence for, is the notion that all life forms today are descended from a single original life form that itself evolved from purely chemical precursors around 4 billion years ago.

I hope this helps.

Respectfully,

Dr. Ray Bohlin
Probe Ministries

"How Do I Find Someone to

Mentor Me?”

Hello Ray!

I am not sure if you know who I am, but I was one of the participants in your singles conference at _____.

I just spent some time on the Probe website and was reading one of Lou Whitworth’s articles on being God’s man (king, warrior, mentor and friend).

I know you spoke to us about having a mentor in your life. Since then, I have heard two of our pastors and Chuck Swindoll speak about the need for mentoring as well. I am really trying to allow God’s will to direct my life and this subject keeps coming up. I believe this is a step He wants me to take, but I am not sure how to go about it. Would it be possible for you to help me find a mentor? If not, would you know someone who could help me?

Any assistance you could provide me is be sincerely appreciated.

Hi _____,

A mentor generally needs to be someone who is at least 10 to 15 years older and someone whose walk with the Lord you respect. Asking someone to be your mentor can be a little intimidating. But just asking if you can meet together to pray and enjoy some fellowship sounds a lot more doable to other men. Is there anyone you admire from afar? If no one comes to mind I would suggest inquiring of a pastor for suggestions. They often know of older saints who would be willing to enter into this kind of relationship but don’t know of anyone interested.

It’s a real problem in the church and there are a lot of men willing to be mentored but a shortage of those willing to

share their life's lessons with someone younger (often for fear of not looking so good in the process—a mentor needs to be real enough to admit failures but also have a healthy view of their strengths). They have no model to follow themselves. All that to say it is not likely that this will be a quick and easy search. Above all pray for the Lord's direction and for Him to prepare someone even now.

I commend you for sensing this need and reaching out to try and fill it!

Respectfully,

Ray Bohlin
Probe Ministries

Are We Alone in the Universe? A Biblical View of Aliens

Dr. Ray Bohlin provides a Christian view on the probability and meaning of life on other planets. From a biblical perspective, what would it mean to find evidence of life beyond this earth?

 *This article is also available in Spanish.*

Life on Mars?

There was great excitement in the media when a group of scientists from NASA announced they had found evidence of life on Mars. Their evidence, an alleged Martian meteorite, was vaulted to center stage, and everyone from CNN to *Nightline* ran special programs with interviews and video footage of the

scientists and their prized specimen. President Clinton was so excited by the announcement that he praised the U.S. space program and took the opportunity to establish a bipartisan space summit headed up by Vice President Al Gore to study the future of U.S. space research. Aren't we already doing that?

Anyway, clearly this announcement took the country by storm. Some of the scientists were embarrassingly gushing about how significant these findings were. The media frenzy was prompted by the early release of an article from the journal *Science*, the premier scientific journal in the U.S. The article was due out the following week, but *Science* decided to release it early because it had leaked out.

Here's what the excitement was about. A group of scientists had studied a meteorite that had been found in the ice of Antarctica. Previously, it had been determined that this meteorite had originated on Mars by studying the gaseous content of glass-like components of the meteor. The gas composition matched very well the atmosphere of Mars. This conclusion seems reasonable.

So, they presumed they had a meteor from Mars. Next they looked for evidence of life on and in the crevices of the meteor. They found two types of molecules that can form as a result of life processes, carbonates and complex molecules called polyaromatic hydrocarbons or PAHs. They also found shapes in the rock that resembled those of known microfossils on Earth. Microfossils are fossils of one-celled organisms which are rather tricky to interpret.

Well, what does this mean? Obviously, the NASA scientists felt the things just mentioned provided ample evidence to conclude that life once existed on Mars. However, the chemical signs could all be due to processes that have nothing to do with life, and the supposed microfossils are 100 times smaller than any such fossil found on Earth. Other groups that studied this same meteorite concluded that either the temperature of

formation of the chemicals was far too high to allow life (over 700 degrees C) or that other chemical signals for life were absent. John Kerridge, a planetary scientist from the University of California at San Diego, said, "The conclusion is at best premature and more probably wrong." But listen to the concluding statement in the paper in *Science:*

> *Although there are alternative explanations for each of these phenomena taken individually, when they are considered collectively, particularly in view of their spatial association, we conclude that they are evidence for primitive life on Mars.{1}*

In plain English, there are reasonable non-life explanations for each of the evidences presented, but we just think that they mean there is life on Mars. The evidence ***is*** very equivocal and was challenged by many other scientists, but the media did not report that as fully. But maybe they are right! In fact, there is one simple explanation that is consistently ignored by media and scientists alike. If there really is, or has been, life on Mars, what could that possibly mean for evolution, and more importantly, does it somehow refute creation? We'll look at that next.

What Would Life on Mars Mean?

Because of the recent announcement of signs of life on Mars, many people were encouraged in their belief that we are not alone in the universe. These signs are far from certain and probably wrong, but if it's true, what would these results mean to evolutionists? Moreover, is there any reason for Christians to fear confirmation of life on Mars?

Let us assume, then, for the moment that the evidence from this Martian meteorite is legitimate evidence for life on Mars—life that at some point in the past actually existed on Mars. What would it mean?

For evolutionists the evidence is perceived as confirmation that life actually arises from non-life by purely chemical processes. In addition, evolutionists draw the conclusion that life must be able to evolve very easily since it did so on two adjacent planets in the same solar system. Therefore, even though origin of life research is actually at a standstill, such a discovery seemingly confirms the notion that *some* chemical evolution scenario *must work*. I will address this assumption later.

On the other hand, some have stated that if there is life on Mars, creationism has been dealt a death blow. They rationalize that since (1) we now know that life can evolve just about anywhere, and (2) the Bible never speaks of life anywhere but on Earth, the Bible is, therefore, unreliable. Besides, they reason, why would God create life on a planet with no humans? However, since the Bible is absolutely silent on the subject of extra-terrestrial life, we can make no predictions about its possibility. God is certainly free to create life on planets other than Earth if He chooses.

Getting back to the evolutionists' glee at the possibility of life evolving on other planets, the real question is whether this is the proper conclusion if life is indeed found on Mars? The simple answer, inexplicably avoided by the media, is NO! The simplest answer to the possible discovery of life on Mars is that the so-called "Martian life" actually came from Earth!

Think about it this way. The meteorite that was found is supposed to have existed on Mars previously. How did it get to Earth? Well, it is hypothesized that a large meteorite crashed into Mars throwing up lots of debris into space, some of which finds its way to Earth and at least a few of which are found by Earthlings. If you are thinking with me, you now realize that the same scenario could have been played out on Earth.

Evolutionists suggest that the Earth was under heavy meteor bombardment until at least 3.8 billion years ago—about the

time they say life appeared on Earth. Christian astronomer Hugh Ross states it this way:

> *Meteorites large enough to make a crater greater than 60 miles across will cause Earth rocks to escape Earth's gravity. Out of 1,000 such rocks ejected, 291 strike Venus, 20 go to Mercury, 17 hit Mars, 14 make it to Jupiter, and 1 goes all the way to Saturn. Traveling the distance with these rocks will be many varieties of Earth life.{2}*

Ross also documents that many forms of microscopic life are quite capable of surviving such a journey. All this is quite well known in the scientific community, but I have not seen it mentioned once in any public discussion. I believe the reason is that the possibility of life having evolved on Mars is too juicy to pass up.

The Improbability of Life Elsewhere in the Universe

I would like to address the amazing optimism of so many that the universe is teeming with life. No doubt this is fueled by the tremendous success of such science fiction works as *Star Wars* and *Star Trek* which eloquently present the reasonableness of a universe pregnant with intelligent life forms.

Inherent within this optimism is the evolutionary assumption that if life evolved here, certainly we should not arrogantly suppose that life could not have evolved elsewhere in the universe. And if life in general exists in the universe, then, of course, there must be intelligent life out there as well.

This is the basic assumption of the SETI program, the Search for Extra-Terrestrial Intelligence. This is the program, now privately funded instead of federally funded, that searches space for radio waves emanating from another planet that would indicate the presence of intelligent life. But is such a hope

realistic? Is there a justifiable reason for suspecting that planets suitable to life exist elsewhere in the universe?

Over the last two decades scientists have begun tabulating many characteristics of our universe, galaxy, solar system, and planet that appear to have been finely-tuned for life to exist. Christian astronomer and apologist, Dr. Hugh Ross documents all these characteristics in his book *Creator and the Cosmos,*{3} and is constantly updating them. In the book's third edition (2001), Ross documents 35 characteristics of the universe and 66 characteristics of our galaxy, solar system, and planet that are finely-tuned for life to exist.

Some examples include the size, temperature, and brightness of our sun, the size, chemical composition, and stable orbit of Earth. The fact that we have one moon and not none or two or three. The distance of the Earth from the sun, the tilt of the earth's axis, the speed of the earth's rotation, the time it takes Earth to orbit the sun. If any of these factors were different by even a few percent, the ability of Earth to sustain life would be severely compromised. Recently it has been noted that even the presence of Jupiter and Saturn serve to stabilize the orbit of Earth. Without these two large planets present exactly where they are, the Earth would be knocked out of its present near circular orbit into an elliptical one causing higher temperature differences between seasons and subjecting Earth to greater meteor interference. Neither condition is hospitable to the continuing presence of life.

Ross has further calculated the probabilities of all these factors coming together by natural processes alone to be 1×10^{-166}; that's a decimal point followed by 165 zeroes and then a one. A very liberal estimate of how many planets there may be, though we have only documented less than 100, is 10^{22} or 10 billion trillion planets, one for every star in the universe. Combining these two probabilities tells us that there are 10^{-144}

planets in the entire universe that could support life. Obviously this is far less than one; therefore, by natural processes alone, we shouldn't even be here—let alone some kind of alien life form.

So unless God created life elsewhere, we are alone, and for the materialistic evolutionist, this is a frightening thought.

Problems with Chemical Evolution on Earth

The statistics given above mean that we are really alone in the universe and that there is no hope of finding intelligent civilizations as in the television program *Star Trek.* While it means there is no one out there to threaten our survival, there is also no one out there to save us from our own mistakes.

This observation highlights why I believe the scientific community and the media became so excited about the possibilities of life on Mars. Efforts to determine how life could have evolved from non-living matter have been so fraught with problems that it makes the possibility of life elsewhere extremely remote. But if it could be proved that life evolved elsewhere, then it would demonstrate that life springs up rather easily, and we just haven't found the right trick here on Earth to prove it. But this just leapfrogs the problem.

But is the evolution of life from non-living chemicals really that impossible? The difficulties fall into three categories, the Chemical Problem, the Thermodynamic Problem, and the Informational Problem. These issues are presented comprehensively in a book by Thaxton, Bradley, and Olsen titled *The Mystery of Life's Origin*{4} and in a chapter in the edited volume by J. P. Moreland, *The Creation Hypothesis*.{5}

Chemical Problems are illustrated by the difficulty in synthesizing even the simplest building block molecules necessary for life from inorganic precursors. Amino acids,

sugars, and the bases for the important nucleotide molecules that make up DNA and RNA were all thought to be easily synthesized in an early Earth atmosphere of ammonia, methane, water vapor, and hydrogen. But further experiments showed this scenario to be unrealistic. Ammonia and methane would have been short-lived in this atmosphere; the multiple energy sources available would have destroyed the necessary molecules and water would have broken apart into hydrogen and oxygen. The oxygen was scrupulously avoided in all prebiotic scenarios because it would have poisoned all the necessary reactions.

Thermodynamic Problems arise from the difficulty in assembling all these complex molecules that would have been floating around in some prebiotic soup into a highly organized and complex cell. To accomplish the task of achieving specified complexity in life's molecules such as DNA and proteins, the availability of raw energy for millions of years is not enough. All systems where specified complexity is produced from simple components requires an energy conversion mechanism to channel the energy in the right direction to accomplish the necessary work. Without photosynthesis, there is no such mechanism in the prebiotic Earth.

The Informational Problem shows that there is no way to account for the origin of the genetic code, which is a language, without intelligent input. Informational codes require intelligent preprogramming. No evolutionary mechanism can accomplish this. Life requires intelligence.

So you can see why evolutionists would get excited about the possibility of finding evolved life elsewhere. It's because life is seemingly impossible to evolve here. So, if it did happen elsewhere, maybe our experiments are just missing something.

Independence Day, The Movie

In the movie *Independence Day,* an alien battle force swoops

down on Earth with the intention of destroying the human race, sucking the planet dry of all available resources and then moving on to some other unlucky civilization in the galaxy. But, those indomitable humans aided by good old American ingenuity outsmart those dull-witted aliens and Earth is saved. The story has been told many times, but perhaps never as well or never with such great special effects. The movie was a huge success.

But why are we continually fascinated by the possibility of alien cultures? The movie gave the clear impression that there must be great numbers of intelligent civilizations out there in the universe. This notion has become widely accepted in our culture.

Few recognize that the supposed existence of alien civilizations is based on evolutionary assumptions. The science fiction of *Star Trek* and the *Star Wars* begins with evolution. As I've stated earlier, evolutionists simply rationalize that since life evolved here with no outside interference, the universe must be pregnant with life. Astronomer Carl Sagan put it this way after he had reviewed the so-called success of early Earth chemical evolution experiments:

> *Nothing in such experiments is unique to the earth. The initial gases, and the energy sources, are common throughout the Cosmos. Chemical reactions like those in our laboratory vessels may be responsible for the organic matter in interstellar space and the amino acids found in meteorites. Some similar chemistry must have occurred on a billion other worlds in the Milky Way Galaxy. The molecules of life fill the Cosmos.{6}*

Sagan strongly suggests that the probabilities and chemistry of the universe dictate that life is ubiquitous in the galaxy. But as I stated earlier, the odds overwhelmingly dictate that

our planet is the only one suitable for life in the universe. And the chemistry on Earth also indicates that life is extremely hard to come by. The probability of life simply based on chance occurrences is admitted by many evolutionists to be remote indeed. Many are now suggesting that life is inevitable because there are yet undiscovered laws of nature that automatically lead to complex life forms. In other words, the deck of cards is fixed. Listen to Nobel Laureate and biochemist, Christian de Duve:

> *We are being dealt thirteen spades not once but thousands of times in succession! This is utterly impossible, unless the deck is doctored. What this doctoring implies with respect to the assembly of the first cell is that most of the steps involved must have had a very high likelihood of taking place under the prevailing conditions. Make them even moderately improbable and the process must abort, however many times it is initiated, because of the very number of successive steps involved. In other words, contrary to Monod's affirmation, the universe was—and presumably still is—pregnant with life.{7}*

The only problem with de Duve's suggestion is that we know of no natural processes that will lead automatically to the complexity of life. Everything we know of life leads to the opposite conclusion. Life is not a product of chance or necessity. Life is a product of intelligence.

Without Divine interference we are alone in the universe and without Christ we are—and should be—terrified. The gospel is as relevant as ever.

Notes

1. *Science,* 16 August 1996, 273:924-30.
2. *Creator and the Cosmos,* NavPress, 2001, p. 210.
3. Ibid., pp. 145-199.
4. Lewis and Stanley, 1984.

5. InterVarsity Press, 1994, pp. 173-210.
6. *Cosmos,* Random House, 1980, p. 40.
7. *Vital Dust*, Basic Books, 1995, p. 9.

PBS Evolution Series

Darwin's Dangerous Idea

Some evolutionists are definitely worried. Creation, intelligent design and a general dissent concerning Darwinian evolution continue to gain ground—so much so that a deliberate counterattack has been launched. Using scientists from around the world, professional defenders of evolution, beautiful nature photography, computer graphics and simulations, the prestige of the PBS NOVA series and the financial backing of Microsoft billionaire Paul Allen, a monumental defense and celebration of evolution has been produced.

The new PBS Evolution Series is a seven part, eight hour documentary originally aired on PBS stations around the country in late September of 2001 and rebroadcast in May and June of 2002. Accompanying the video series is an interactive Web site, 360-page companion book, coordinated teacher training and education, and a determined publicity campaign aimed at getting the series into the nation's high schools.

The explicit goals of the series are to help students understand the critical importance of evolutionary theory in understanding so many scientific and health issues of today—from AIDS to antibiotic resistance to fighting agricultural pests to even how we choose a sexual partner. The

producers set out to establish the overwhelming evidence behind evolution and the soundness of the science behind it. They specifically sought to pursue solid science journalism and forego the religious realm.

Essentially, the series has failed on all counts. This beautiful documentary is loaded with speculation, exaggerated evidence and claims, glossing over of legitimate controversy, and a persistent hostility towards any religious perspective deemed incompatible with evolution.

Episode One begins with a dramatization of a conversation between Charles Darwin and Captain Robert Fitzroy of the HMS Beagle in South America as Darwin is purchasing a fossil. The fictitious conversation clearly pokes fun at the Biblical account of the flood. Darwin was nowhere near as skeptical as portrayed, and Fitzroy was nowhere near as literal either. This opening scene lays the groundwork for a continual assault on history and the evidence to make evolution look as positive as possible and opponents of evolution as silly as possible.

This two-hour opening episode crosses paths with religion several more times in discussions of the philosophical meaning of evolution in an interview of Kenneth Miller, a Darwin defender who finds no incompatibility between his Christian faith and Darwinian evolution. In this opening episode the producers present a confusing contradiction. On the one hand Darwin's dangerous idea precludes any true meaning to life and on the other hand, Darwinian evolution is completely compatible with an informed Christian faith. For more detailed analysis of this episode consult the Discovery Institute's free Viewer's guide available on the Internet at www.reviewevolution.com.

"Great Transformations" and "Extinction"

Perhaps the most foundational episode is Episode Two: The Great Transformations. One's expectation would be the

presentation of numerous persuasive transitional forms demonstrating without doubt, the common ancestry of all life. Instead we are treated to a certainty based on the usual arguments from authority, selective fragmentary fossil evidence, and speculative molecular mechanisms.

The opening segment presents the mounting evidence for the amazing transition from a terrestrial wolf-like vertebrate to modern aquatic whales. Lots of fossils and reconstructions are paraded before us, unfolding the supposed story of whale evolution. Complete skeletons are pictured with no indication that they are based on very partial fossil finds. The overall transitional series is discussed with certainty despite the fact that evolutionists themselves admit that the known members of the transitional series are not thought to be the actual members of the transitional series but just representative of what the actual transitional species may have looked like.{1} Also missing is the admission that, by the very nature of fossils, it can never really be known if any one fossil was ancestral to another.

Also featured in this episode is the stunning Cambrian explosion of animal life forms featuring Simon Conway Morris. Morris freely admits that "this sudden appearance of the fossils led to this term, the Cambrian explosion. Darwin, as ever, was extremely candid, he said, Look, this is a problem for my theory. How is it that suddenly animals seem to come out of nowhere? And to a certain extent that is still something of a mystery." As the segment develops, no attempt is made to explore or resolve this mystery. The experts make only vague references to evolution tinkering with what already exists. But even tinkering is a design activity, design with a purpose. Natural selection would be better described as a blindfolded man trying to navigate a minefield.

Episode 3 explores the evolutionary significance of extinction. Both the great Permian extinction of 250 million years ago and the KT extinction of dinosaur fame of 65 million

years ago are explored and make fascinating stories. Their relation to evolution is obscure, however. Mass extinctions supposedly open up the playing field for new and diverse species to evolve due to less competition. But Darwinian natural selection supposedly thrives on competition. The segments on biological invaders, while important in and of themselves, have little to add to the evolutionary debate. Biological control has been practiced for centuries with no knowledge of evolution.{2} Once again, we witness lots of authoritative posturing but little evidence for evolution.

"The Evolutionary Arms Race" and "Why Sex?"

For many years medical authorities have been warning of the dangers of infectious bacteria becoming resistant to antibiotics. The overuse and misuse of antibiotics in western society has led to an increase in the number of strains of bacteria that are resistant to our primary defense against infection. In Episode Four of PBS's Evolution Series titled "The Evolutionary Arms Race," we are told this is evolution in action.

First, this statement leads to the conclusion that knowledge of evolution is essential to designing adequate health care. And second, labeling antibiotic resistance as evolution in action implicitly states that evolution is a fact, since antibiotic resistance is a fact. This is another case of a selective use of evidence. What the producers of *Evolution* don't say is that the mechanisms for antibiotic resistance have been known for years. Usually the capacity to resist antibiotics has always been in the bacterial population and does not result from mutation. Even when a mutation is responsible, a new function is never evolved, just the damaging of an existing function. Sometimes the mutation results in the antibiotic being expelled from the cell faster or taken in more slowly. This doesn't create a new species and

doesn’t fundamentally change the organism.

Another factor left out of the discussion is that antibiotic resistance always comes with a cost of its own. Antibiotic resistant bacteria are always inferior to the original wild-type bacteria. Their growth is stunted. Sometimes these costs can be compensated for but also at additional costs. Resistant bacteria are not better bacteria. Remove the antibiotic and they quickly lose out to the original wild-type bacteria. Therefore, to suggest that in the case of resistant tuberculosis that the bacteria evolved right inside the human host is highly misleading. The bacterial resistant forms were already present, the bacterium has not changed or evolved at all.

While the episode gives numerous examples of natural selection on a micro scale, the evidence discussed tells us nothing of how antibiotic resistance arose in the first place or how ants, molds, fungi, and bacteria first became intricately associated.

The fifth episode contains perhaps the least science and relevance to evolution, but will certainly be the most entertaining and even titillating for high school students. The episode “Why Sex” tries to ascertain the purpose and even evolution of sexual reproduction. While containing some helpful information and case studies, the program is full of speculative storytelling and an overload of sexual displays and sexual acts from fish to lizards, to birds, to chimpanzees and even a highly unnecessary and suggestive encounter between humans.

Also included is a highly controversial, yet factually presented discussion of evolutionary psychology and one researchers ideas that all forms of human artistic endeavors are little more than sexual displays. Some of their own previously used evolutionary experts would find most of this episode an incredible waste of time and money.

“The Mind’s Big Bang” and “What About God?”

The uniqueness of human beings presents a difficult evolutionary puzzle. So much of who and what we are is categorically different from other animal species that trying to account for it by mutation and natural selection presents a tough challenge. In Episode Six, “The Mind’s Big Bang,” we unfortunately don’t get much of an answer.

The episode begins by documenting the amazing human capacity for art in the caves of France. This launches a long series of segments that document the early appearance of artistic expression that has its roots in the development of tool making. Eventually this explosion of capacities rooted in the brain is traced to the remarkable development of human language. As in other episodes there is lots of speculation about the selective advantages of language, but this tells us nothing of how language evolved. The discussion gives the impression that if we can just discover what language is used for, we will know how it evolved. This is typical evolutionary story-telling masquerading as science.

The Cambridge Encyclopedia of Language candidly admits that “For centuries, people have speculated over the origins of human language. . . . [but] the quest is a fruitless one. . . . We have no direct knowledge of the origins and early development of language, nor is it easy to imagine how such knowledge might ever be obtained.”{3} The Discovery Institute’s Viewers Guide also notes that we are told that language was the key to our becoming human. In Episode Two, however, we were told it was the ability to walk on two legs and in Episode Five it was using our brains to choose sexual partners. This confusion of “key events” exposes them for the speculation they truly are.{4}

The final episode “What About God?” reveals the entire series

as the propaganda it is meant to be. Here we meet the old science vs. religion argument in all its glory. The Evolution producers go to great lengths to distort the controversy to their own ends. The Scopes trial and the Sputnik-induced revolution in science education are neatly packaged and distorted as science vs. religion. The inquiring and passionate science students and professors who have no quarrel with evolution are favorably portrayed against uneducated parents and naïve Bible literalists. Theistic evolutionist Keith Miller is pictured as a liberator to Wheaton College students who don't want to be perceived as unintelligent.

What becomes unmistakably clear in this episode is that the reigning naturalistic stranglehold on science education is to be maintained at all costs. Those who oppose it, risk being branded as dangerous or stupid or ignorant or all three. Censorship of facts contrary to evolution is justified in the name of science. The bottom line is that "It's OK for people to believe in God, as long as their beliefs don't conflict with Darwinian evolution. A religion that fully accepts Darwin's theory is good. All others are bad."{5}

The PBS Evolution Web Site

Located at www.pbs.org/wgbh/evolution, the PBS Evolution Web site is a goldmine of information and teaching suggestions along with interactive games and exercises aimed at sharpening one's evolutionary skills. But visitors should also expect that much of the information contained here employs the same sleight of hand that the video series uses in relating evidence for evolution. With such a great volume of information available at the *Evolution* Web site, I will direct my attention to one article as an example. Under the main heading of "Change," an essay is offered critiquing Intelligent Design. The essay is authored by Kenneth Miller, a Brown University biology professor, featured in the first episode as a Roman Catholic who sees no problem with

evolution.

The essay is titled “Life’s Grand Design” and purports to explain how evolution accounts for the design of nature far better than an intelligent designer would. His entire discussion revolves around the design of the human eye.{6} On page one Miller presents the problem. The eye is exquisite in its design, accomplishing the wondrous effect of color vision with a very complicated design. How could it possibly have evolved one step at a time? On page two, Miller begins his response with the standard blind watchmaker explanation from Richard Dawkins. Miller emphasizes the gradual slight improvements and that all those that are positive will be selected. This is not necessarily true. It is well known that some genetic changes will be so slight that they do not offer a significant enough selective advantage and therefore, will be lost. Miller ignores the uncomfortable details.

Miller then describes how easy it would be to build an eye from just a few light-sensitive cells. But he starts with “light- sensitive cells.” Where did these come from? How did they become light sensitive? The molecular mechanism of light sensitivity is quite complex and one of Michael Behe’s examples of irreducible complexity. But once again Miller ignores the uncomfortable details. Miller states, “it is possible to draw a series of incremental changes that would lead directly to the lens and retina eye.” But you know, I’m not interested in whether it can be drawn. I want to know how it would evolve biologically.

Finally Miller delivers the *coup de grace*; the eye exhibits design flaws that any engineer would never employ. You see, the human eye seems to have things a little backwards. The light- sensitive cells face the back of the eye or the retina, instead of the front of the eye where the light comes from. Therefore, the incoming light must pass through the nerve cells and blood vessels first, potentially distorting the image. Not only that, but the nerve cells eventually bunch

together before punching through the retina en route to the brain, therefore creating a dangerous blind spot. Surely an intelligent designer wouldn't do it that way. The eye is therefore a great example of evolution at work. Evolution simply arrives at the best available solution.

But again, Miller ignores the details. He doesn't reveal that the layer of cells behind the nerve cells, behind the blood vessels and behind the photoreceptor cells, is an immensely important group of cells we will abbreviate as the RPE (Retinal Pigmented Epithelium). The RPE is necessarily in close proximity to the photoreceptor cells, the rods and cones, because the RPE replenishes the necessary molecules for vision. With the RPE at the very back of the retina, these cells act as an absorptive layer to get rid of excess light. Without the RPE we would be blinded by ordinary sunlight. Also the absorption of excess light sharpens our vision. So the designer has a dilemma. Both the nerves and blood vessels must be in front of the rods and cones or the RPE must be in front because both must be in direct contact with the photoreceptor cells and they all won't fit and function together. Something will get between the light and the light sensitive cells. Putting the blood vessels and nerves in front of the rods and cones creates a very mild light filter, but does create a blind spot where the nerves bundle together. However, putting the RPE between the light and the rods and cones would create a much more detrimental filter and diffusing agent. The vertebrate eye is structured properly when all factors are considered.

"The vertebrate eye provides an excellent example of functional– though non-intuitive design. The design of the retina is responsible for its high acuity and sensitivity. It is simply untrue that the retina is demonstrably suboptimal, nor is it easy to conceive how it might be modified without significantly decreasing function."{7}

As we have seen in this essay, evolution can offer some

impressive evidences on first glance. But time and time again, the intricacies of design are in the details.

Notes

1. The story of whale evolution has indeed grown more sophisticated over the last 10-15 years. Indeed, this was one transition that many creationists had a great deal of fun with. How could a land mammal evolve into a whale? How could the transitional forms possibly be functional on land or in water? If one were to scan the presumed transitional series (found on page 138 of *Evolution* by Carl Zimmer, Harper Collins, 2001) it is quite impressive evidence for evolution. The transitional series, while a little jerky with certain gaps remaining, appears gradual enough and the fossils seem to appear in the expected order and strata. But as always, the truth is in the details. Two recent articles investigate the evidence with some detail and rigor. Ashby Camp has written a fine summary (last modified March 11, 2002) and critique of the fossil evidence for whale evolution that is available from the TrueOrigins website at www.trueorigins.org/whales.asp. Also, John Woodmorappe has analyzed the mixture of characters in some of the whale-like fossils in his article "Walking whales, nested hierarchies, and chimeras: do they exist?" in *TJ* 16(1) 2002: 111-119. *TJ* was formerly *Creation Ex Nihilo: Technical Journal.*
What we learn from these articles is that the true land mammal ancestor of whales is still in dispute. The pakicetids, the first "intermediate," are true land mammals with a few potential aquatic features in their inner ears. The next group known as ambulocetids show some aquatic features but other features distance them from actual whale ancestors. Many of these are not in the proper stratigraphic position. The pakicetids and ambulocetids are all less than 10 feet long; the fully marine Basilosaurus are all over 50 feet in length. Even by evolutionary standards there isn't enough time between these species to evolve even this simple increase in length.

None of the species depicted on page 138 of Evolution are thought to be actual ancestors of modern whales. The diagram is actually drawn to indicate this fact but most people looking at it won't come away with that impression. Each species is diagrammed as an offshoot of the lineage but not an actual transitional form. How come we always find just "types" of ancestors and never the ancestors themselves? Some character or another always disqualifies the intermediate in question. There seems to be a deeper lesson here that most evolutionists are unwilling to face.

2. The documentation of human interference in the ecosystems of Hawaii and Thailand are summed up with a plea to slow down the rate of human induced extinction and allow nature to take its own more natural and easy-paced course. This implies, however, that humans are somehow outside the loop of nature. If we are just another biological species, then we are only acting according to our own biological nature. How or why should this be suppressed? As in past mass extinctions, the strong, opportunistic and lucky will survive. Perhaps that includes us, perhaps not. In the naturalistic worldview of the series, what's the difference? This is another example of stealthily applying a Christian worldview that gives intrinsic value to nature while maintaining the guise of naturalism. In a naturalistic worldview, nature just is. Choosing to interfere on nature's behalf indicates intrinsic value and worth that can only come from outside nature itself. In the Christian worldview, this comes from God.

3. David Crystal, *The Cambridge Encyclopedia of Language,* Second Edition, Cambridge: Cambridge University Press, 1997, p. 6,290.

4. www.reviewevolution.com, p. 92.

5. Ibid, p. 107.

6. www.pbs.org/wgbh/evolution/change/grand/, p. 1-6.

7. George Ayoub, On the design of the vertebrate retina, *Origins and Design,* Vol. 17(1): 19-22. This article can also be found on the web at www.arn.org/docs/odesign/od171/retina171.htm.

"What Does the Bible Say About Donating Eggs for In Vitro Fertilization?"

A friend is considering giving some of her eggs to another woman to have a baby. Is this a moral issue? What does the Bible say about such a thing?

There is indeed a moral concern with donated gametes. Though some have expressed concern as to whether this can be constituted as adultery, I believe this term is best left for the physical act itself.

The relevant biblical passages are first Genesis 2:24, which introduces the concept of "one flesh." Many scholars describe children as an expression of a couple becoming one flesh. Even if this specific connection is not accepted, it is clear that a third flesh has been introduced into the marriage relationship with donated gametes, either eggs or sperm. In my mind this is the most pressing moral issue.

A second related passage is Genesis 16 and the story of Hagar and Ishmael. In a sense, Sarai "borrows" Hagar's eggs to give Abram an heir when she has failed to do so herself. Though God

respects and saves Hagar and Ishmael, the union is not blessed by God and Abram's promised heir is still to come through Sarai later. Also note the emotional trauma this arrangement causes Sarai, Hagar and Abraham. The emotional issues cannot be overlooked. The egg donor will understandably feel a special kinship with the resulting child; after all, she is the genetic mother. This could easily put a strain on the marriage in which the child is raised that can be difficult to anticipate.

I would not counsel the acceptance or donation of either sperm or egg.

A helpful resource on these questions is a series of booklets put out by the Center for Bioethics and Human Dignity called the *BioBasic Series.* They have three additional booklets covering suicide, end of life issues, and alternative medicine. Each is offered in a question and answer format. You can purchase them through the Center at www.cbhd.org. I am co-authoring a booklet in the next round of four on genetic engineering. I hope the next four will be released within 2002.

Respectfully,

Ray Bohlin
Probe Ministries

"Help Me Counter My Prof's Teachings on Horse Evolution"

I'm a senior at _____ in Agricultural Business Management. In one of my Range classes the professor has laid

the foundation for the entire class on evolution. Using the common picture of horse evolution (hyracotherium to equus) he is saying that rangeland plants and systems have co-evolved with large ungulates. I'm struggling on just how he can give the theory of evolution such validity, the difference between adaptation and evolution, and finding information that I can use to refute some of his ideas. I don't want to argue with him but just want a chance to exchange ideas. If you can direct me to any information or resources on this specific topic, I would appreciate it. Thanks.

The best source of information on the horse series can be found in Jonathan Wells book, *Icons of Evolution* (2000) from InterVarsity Press. He has a full chapter on the subject as well as a chapter on Archeopteryx and the bird-like fossils. The book is easily obtainable at Amazon.com and some Christian Bookstores. Wells has also responded to some of his critics and negative reviews on the Discovery Institute's website at www.discovery.org. He also has other material at Access Research Network, www.arn.org. I would check on both sites for other helpful material.

Respectfully,

Dr. Ray Bohlin
Probe Ministries

"Can You Recommend Good Books on Intelligent Design?"

Grace and peace to you, Dr. Bohlin:

I am a returning college student and a home-schooling parent.

In my classes I find myself facing animosity toward those of us who reject evolution. I want to be able to defend myself in class as well as prepare my children to do the same. I want to be able to say to my children and in class, "I believe [THIS], because [of THIS]; and here's the difference." I know there is good information available on Intelligent Design and Creationism, but I simply do not have the ammunition of knowledge and information that I desire.

Unfortunately, with so many works available, I am at a loss as to where to begin. Thus, could you recommend a few? Are there any that force evolutionists to base their critical examinations mainly (or exclusively) upon emotional arguments? (I.e., points that naturalistic "science" cannot honestly ignore or refute.) Alternatively, could you recommend an assortment that, when combined, thwart the mass of evolutionist droning? (And a good order in which to read/study the works.)

I honor you for your desire to become more knowledgeable in this important arena. I wish there were more Christians like you.

Below is a brief annotated bibliography in the order I feel they should be read by someone just starting out.

> *1. For an overview of the many issues and publishing events surrounding this question, you can start with the Probe book Creation, Evolution, and Modern Science, (Kregel, 2000) which I edited. This will introduce you to several topics without going into too much depth. This link will give you some more information.*
>
> *2. Darwin On Trial by Phillip Johnson (IVP 1991). Phil Johnson has emerged as the leader of the Intelligent Design movement and here lays out in logical manner some of the important evidential problems with evolution as well as the all important academic and educational problems. See this*

related article.

3. Reason in the Balance by Phillip Johnson (IVP 1995). Here Johnson lays out just what is at stake in this naturalism vs. theism clash within the culture in law, science, and education. Not his most popular book, but by his own admission, his most important book. See this related article.

4. Icons of Evolution by Jonathan Wells (Regnery, 2000). A superb expose' of the ten most popular evidences for evolution in high school biology textbooks. The evolutionary and educational communities are falling all over themselves trying to explain or discredit this book. They are looking more and more foolish as time goes on. See this related article.

5. Darwin's Black Box By Michael Behe (Free Press, 1996). This is a narrower work explaining the necessity of intelligent design in understanding the molecular workings of the cell. Not as technical as you think. I have a good review of it in Creation, Evolution and Modern Science. See this related article.

6. Intelligent Design by William Dembski (IVP, 2000). Dembski shows how important Design is within a broad perspective across disciplines while also demonstrating the academic rigor of a design hypothesis. See this related article.

7. Defeating Darwinism by Phillip Johnson (IVP, 1997). A short book for students, parents and teachers highlighting the critical thinking skills needed to weave through the mine fields of the creation/evolution controversy. See this related article.

8. The Wedge of Truth by Phillip Johnson (IVP, 2000). Johnson's latest book, providing an update and analysis of the current controversy and an explanation of overall strategy (The Wedge). Insightful and quotable as always.

There are other books to help you in specific areas and anthologies to offer more technical perspectives of important aspects of the controversy, but these should get you started.

There are reviews of books 2-7 on our website in the science section. URLs listed at the end of each description.

Respectfully,

Ray Bohlin
Probe Ministries

Where Was God on Sept. 11? The Problem of Evil

Dr. Ray Bohlin explores the problem of evil in light of the terrorist attacks on the U.S. on Sept. 11, 2001.

Why Didn't God Prevent the Terrible Attacks?

The events of September 11th are indelibly etched in our hearts and minds. The horrible memories of personal tragedy and suffering will never really go away. As well they shouldn't. As Christians we were all gratified to see so many of our national, state, and local leaders openly participate in prayer services and calling upon people of faith to pray for victims' families and injured survivors.

What was lost underneath the appearance of a religious revival was the clear cry of many that wondered if our prayers were justified. After all, if we pray to God in the aftermath and expect God to answer, where was He as countless individuals

cried out to Him from the planes, the World Trade Center and the Pentagon? The skeptical voices were drowned out because of the fervent religious outcry seeking comfort and relief. But make no mistake; the question was there all the time. Where was God on September 11th? Surely He could have diverted those planes from their appointed destinations. Why couldn't the hijackers have been intercepted at the airports or their plots discovered long before their designed execution?

Why so many innocent people? Why should so many suffer so much? It all seems so senseless. How could a loving God allow it?

It is important to realize also that the suffering of those initial weeks is only the tip of the iceberg. There will be military deaths and casualties. The war on terrorism will be a long one with mounting personal and economic costs. The clean up will also continue to take its ever-mounting toll in dollars, lives, and emotional breakdowns.

Former pastor Gordon MacDonald spent time with the Salvation Army in caring for people and removing debris and bodies from the rubble of the World Trade Center. He relates this encounter from his journal of September 21 in *Christianity Today:*{1}

> "Later in the night, I wandered over to the first-line medical tent, which is staffed by military personnel who are schooled in battlefield casualties. The head of the team, a physician, and I got into a conversation.
>
> "He was scared for the men in the pit, he said, because he knew what was coming 'downstream.' He predicted an unusual spike in the suicide rate and a serious outbreak of manic depression. . . . Many of the men will be unable to live with these losses at the WTC. It's going to take an unspeakable toll on them."

So why would God allow so much suffering? This is an ancient

question. The problem of reconciling an all-powerful, all-loving God with evil is the number one reason that people reject God. I will try to clarify the question, provide some understanding, and make some comparisons of other explanations.

Psalm 73 and Asaph's Answer

The Bible answers the question of where God was on September 11 in many passages, but I would like to begin with the answer from Asaph in Psalm 73. My discussion will flow from the excellent discussion of the problem of evil found in Dr Robert Pyne's 1999 book, *Humanity and Sin: The Creation, Fall and Redemption of Humanity.*{2}

In Psalm 73, Asaph begins by declaring that God is good. Without that assumption, nothing more need be said. He goes on in verses 2-12 to lament the excess and success of the wicked. In verses six and seven he says, "Therefore pride is their necklace; they clothe themselves with violence. From their callous hearts comes iniquity; the evil conceits of their minds know no limits." (Psalm 73:6-7). From this point Asaph lets his feelings be known by crying out that this isn't fair when he says in verse 13, "Surely in vain have I kept my heart pure; in vain have I washed my hands in innocence."

The wicked seem to snub their noses at God with no apparent judgment, while Asaph strives to follow the Lord to no benefit. We have all experienced this in one form or another. Some things in this world simply aren't fair. In the last ten verses of the psalm, Asaph recognizes that the wicked will indeed realize their punishment in the future. God's judgment will come. He also realizes that God is always with him and that is sufficient.

18th century philosopher David Hume stated the classical problem of evil by saying that if God were indeed all powerful He would do something about evil, and that if He were all-

loving He would want to do something about evil. Since evil exists, God must either not be able or not want to do anything about it. This makes God either malevolent or impotent or both. But Hume chooses to leave out the option, as Asaph resolves, that God is patient. Hume, like many before him and after him, grows weary with a God who is patient towards evil.

We long for immediate justice. But before we pray too earnestly for immediate justice, we'd better reflect on what that would be like. What would instant justice look like? Immediate justice would have to be applied across the board. That means that every sin would be proportionately and immediately punished. We soon realize that immediate justice is fine if applied to everybody else. Dr. Pyne quotes D. A. Carson as saying, "The world would become a searing pain; the world would become hell. Do you really want nothing but totally effective, instantaneous justice? Then go to hell."{3} I think we're all quite comfortable with a God that does not apply immediate justice.

Evil and the Sovereignty of God

Next, I want to focus on God's sovereignty. We understand that God knew what He was doing in creating people with the ability to choose to love Him or hate Him. In order for our love for Him to be real, our choice needed to be real and that means creating creatures that could turn from Him as well as love Him. In order to have creatures with moral freedom, God risked evil choices.

Some would go so far as to say that God couldn't intervene in our evil choices. But in Psalm 155:3, Psalm 135:6, and in Nebuchadnezzar's words of praise in Daniel 4:34-37 we're told it is God who does whatever He pleases. However, God does perform acts of deliverance and sometimes He chooses not to. We are still left with the question "Why?" In the book of Job, Job basically proclaims his innocence and essentially asks why? God doesn't really give Job an answer, but simply reminds

him who is in charge. (Job 38:2-4) “Who is this that darkens counsel by words without knowledge?” the Lord asks Job.

The parameters are clearly set. God in His power is always capable of intervening in human affairs, but sometimes He doesn’t and we aren’t always given a reason why. There is tension here that we must learn to accept, because the alternative is to blaspheme by assigning to God evil or malevolent actions. As Asaph declared, God is good!

This brings us to the hidden purposes of God. For although we can’t always see God’s purpose, we believe He has one in everything that occurs, even seemingly senseless acts of cruelty and evil. Here is where Jesus’ sufferings serve as a model. The writer of Hebrews tells us that Jesus endured the cross for the joy set before Him. (Hebrews 12:1-3) So then, we should bear our cross for the eternal joy set before us. (Hebrews 12:11, 2 Corinthians 4:16-18) But knowing this doesn’t always make us feel better.

When Jesus was dying on the cross all His disciples but John deserted Him. From their perspective, all that they had learned and prepared for over the last three years was over, finished. How could Jesus let them crucify Him? It didn’t make any sense at all. Yet as we well know now, the most important work in history was being accomplished and the disciples thought God was absent. How shortsighted our perspective can be.

The Danger of a Nice Explanation

But with this truth comes the danger of a nice explanation. Even though we know and trust that there is a purpose to God’s discipline and His patience towards ultimate judgment, that doesn’t mean we should somehow regard evil as an expression of God’s goodness. In addition, we can be tempted to think that if God has a purpose to evil and suffering, then my own sin can be assigned not to me but to someone else, namely God

Himself because He had a purpose in it.

Dr. Robert Pyne puts it this way.

> We may not be able to fully resolve the problem of evil, and we may not be able to explain the origin of sin, but we can see the boundaries that must be maintained when addressing these issues. We share in Adam's guilt, but we cannot blame Him for our sin. God is sovereign, and He exercises His providential control over all things, but we cannot blame Him either. God permits injustice to continue, but He neither causes it nor delights in it.{4}

Another danger lies in becoming too comfortable with evil. When we trust in God's ultimate purpose and patience with evil we shouldn't think that we have somehow solved the problem and therefore grow comfortable in its presence. We should never be at peace with sin, suffering, and evil.

The prophet Habakkuk sparred with God in the first few verses of chapter 1 of the book bearing his name by recounting all the evil in Israel. The Lord responds in verses 6-11 that indeed the Babylonians are coming and sin will be judged. Habakkuk further complains about God's choice of the godless Babylonians, to which God reminds him that they too will receive judgment. Yet the coming judgment still left Habakkuk with fear and dread. "I heard and my inward parts trembled: at the sound my lips quivered. Decay enters my bones, and in my place I tremble. . . . Yet, I will exult in the Lord." (Habakkuk 3:16-19.) Habakkuk believes that God knows what He is doing. That does not bring a smile to his face. But he can face the day.

"We are not supposed to live at peace with evil and sin, but we are supposed to live at peace with God. We continue to trust in His goodness, His sovereignty, His mercy, and we continue to confess our own responsibility for sin."{5}

He Was There!

Though we have come to a better understanding of the problem of evil, we are still left with our original question. Where was God on September 11th?

While the Christian answer may not seem a perfect answer, it is the only one which offers truth, hope, and comfort. Naturalism or deism offers no real answers. Things just happen. There is no good and no evil. Make the best of it! Pantheism says the physical world is irrelevant or an illusion. It doesn't really matter. Good and evil are the same.

To answer the question we need to understand that God does, in fact, notice when every sparrow falls and grieve over every evil and every suffering. Jesus is with us in all of our suffering, feeling all of our pain. That's what compassion means, to suffer with another. So the suffering that Christ endured on the cross is literally unimaginable.

> "The answer is, how could you not love this being who went the extra mile, who practiced more than He preached, who entered into our world, who suffered our pains, who offers Himself to us in the midst of our sorrows?"{6}

We must remember that Jesus' entire time on earth was a time of sacrifice and suffering, not just His trial and crucifixion. Jesus was tempted in the manner of all men and He bore upon Himself all our sin and suffering. So the answer is quite simple. He was there!

He was on the 110th floor as one called home. He was at the other end of the line as his wife realized her husband was not coming home. He was on the planes, at the Pentagon, in the stairwells answering those who called out to Him and calling to those who didn't.

He saw every face, knew every name, even though some did not

know Him. Some met Him for the first time, some ignored Him for the last time. He is there now.

Let me share with you one more story from Gordon MacDonald's experience with the Salvation Army during the initial clean up at the World Trade Center.

> "There is a man whose job it is to record the trucks as they leave the pit with their load of rubble. He is from Jamaica, and he has one of the most radiant smiles I've ever seen. He brings a kind of spiritual sunshine to the entire intersection. "I watch him—with his red, white, and blue hard hat—talking to each truck driver as they wait their turn to go in and get a load. He brightens men up. In the midst of those smells, the dust, the clashing sounds, he brings a civilizing influence to the moment.
>
> "Occasionally I go out to where he stands and bring him some water. At other times, he comes over and chats with us. We always laugh when we engage. "I said to him last night, 'You're a follower of the Lord, aren't you?' He gave me an enthusiastic 'Yes! Jesus is with me all the time!' "Somehow this guy represents to me the quintessential picture of the ideal follower of Christ: out in the middle of the chaos, doing his job, pressing a bit of joy into a wild situation." {7}

Notes

1. "Blood Sweat and Prayers," *Christianity Today,* Nov. 12,2001, p. 76.
2. Robert Pyne, *Humanity and Sin: The Creation, Fall and Redemption of Humanity,* pp. 193-209.
3. Pyne, p. 197.
4. Pyne, p. 204.
5. Pyne, p. 206.
6. Peter Kreeft, quoted in *The Case for Faith* by Lee Strobel, 2000, p. 45-46.

7. “Blood Sweat and Prayers,” *Christianity Today*, p. 76.