

Paradigms on Pilgrimage: Creationism, Paleontology and Biblical Interpretation

By paleontologist **Stephen J. Godfrey** (PhD, McGill University) and pastor **Christopher R. Smith** (PhD, Boston College). Toronto, ON: Clement Publishing, 2005.

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CHAPTER 5 ATHEISTIC METEOROLOGY OR DIVINE RAIN?

Most of my objections to the notion that biological diversity could have resulted from continuous, long-operating natural processes vanished while I was working on dinosaurs in Drumheller, Alberta. Ironically, the final vestiges of the old paradigm were not shed as a direct result of studying dinosaurs, but rather because a simple, yet far-reaching analogy occurred to me. The Bible states dearly that it was God who sent rain, at least in ancient times, on the land of Palestine. In other words, the Bible attributes to the action of God something that we currently understand to be the result of natural processes. This being the case, why would it be wrong to consider the possibility that biological diversity, which the Bible also attributes to the action of God, could similarly have come about as a result of naturally operating processes?

When this idea first came to me, I reached for my *New Strong's Exhaustive Concordance of the Bible* one evening while seated at home in my basement office. As I perused the many references that attributed precipitation to the action of God, I wondered what part a person of faith should consider God to play in sending rain. Furthermore, what part, if not all, of meteorology should we not bother studying, because therein lies the domain of God, a realm beyond scientific scrutiny? As I began to grasp the implications of this analogy and its logical conclusions, I realized that it would have as profound an impact upon my understanding of biological creation as had the discovery of fossilized trackways in Garnett, Kansas, upon my understanding of the age of the earth.

I had been deeply disappointed by young-earthers when I realized the implications of trace fossils. As I contemplated the Bible's claim that God sends rain, and the development of the science of meteorology, once again I became angry and frustrated, both with creationists and with myself, for our lack of consistency when it came to biblical interpretation. I realized at that time that we were content to let natural processes account for precipitation, but when it came to the origin of biological diversity, we were adamant that no natural processes could or would ever be found to account for something the Bible attributed to the actions of God.

When I espoused the creationist paradigm, I did not object to the science of meteorology! But I should have, because there can be no doubt that, according to the Bible, it is God who

“sends rain upon the face of the earth” (a claim made in Genesis 7:4, Leviticus 26:4, Deuteronomy 11:14, 1 Kings 17:14, Job 5:10, and Psalm 147:8, among many other places). Are these references to miraculous interventions by God to send rain, or are they descriptions of natural occurrences? The text in Deuteronomy 11: 14, at least, seems to indicate that these are the expected, naturally caused rains that God is sending: “that He may give the rain for your land in its season, the early and late rain, that you may gather in your grain and your new wine and your oil.”

Our observations indicate that rain formation in the Middle East does not differ in essence from rain formation elsewhere. So the Bible is not speaking of “divine” rains that are an exception to whatever we might learn about rain formation elsewhere. Not unexpectedly, therefore, we do not have to evoke the miraculous to account for rainfall in that small part of the world.

As observations and empirical meteorological data were collected in a systematic way over time and hypotheses tested, then either accepted or rejected, an understanding of the natural mechanisms involved in the process of rain formation started to become known. We now understand that, among others, an interplay of the following factors contribute to the formation of rain: the influx and absorption of solar energy, the inclination of the earth’s axis and rate of rotation, patterns of atmospheric circulation, adiabatic processes, cloud formation, oceanic currents, positioning of continents, topography land masses, bodies of water, and plant biomass. If none of these came to us from a close reading of the Bible, but rather from a careful study of nature, then we should reasonably expect to have to study nature at least as closely to learn anything about the mechanisms that generated biological diversity, especially in light of the fact that the Bible is also silent on the natural mechanisms of evolution. And if life is more complex than weather, then we should further expect to have to study it a good bit longer to answer the many more questions will pose.

Thanks to the science of meteorology, we now have a remarkable understanding of the natural processes involved in the formation of rain. But what has been the response of fundamentalist Christianity to these findings, in view of the fact that the Bible claims that it is God who sends rain? As far as I know, none! But aren’t meteorologists discovering the mechanisms by which we can account for the natural origin of rain in the same way biologists continue to work on resolving the mechanisms whereby we can also account for biological diversity? It seemed to me, based on the expectation young-earth creationists lace on the creation account in Genesis, that in order to be consistent in their interpretation, they ought to claim that no amount of study will ever yield the mechanisms to account for the natural formation of rain. In fact, the collection of data or production of meteorological theories would constitute a denial, by meteorologists, that it is God who sends rain and ultimately that He exists. I knew of no court battles over demands by “Biblical Meteorologists” for equal time in science classes to teach that God alone sends rain. I began to ask church friends if there would be any difference between a theistic or atheistic meteorologist, in terms of the mechanisms they could or would discover to account for the natural formation of precipitation. No one suggested that there would be.

So how have Christians reconciled meteorology with the Bible’s clear message that God is responsible for the production of rain? The Bible claims that God sends rain about as many

times as it claims that He created the earth's living creatures. So why would we take exception with attempts to discover and describe the natural processes by which God creates organisms, but not object to the study of the natural processes whereby He sends rain? Is it that organisms are far too complex and varied anatomically for life to have evolved via natural means, unlike the (?) less complex patterns and processes observed within the meteorological realm? If this claim is made, is it not fear in disguise, taking refuge in natural complexity, hoping that ignorance thereof will defend and protect the position? In light of the fact that scientific inquiry continues at a feverish pace to dispel ignorance vis-à-vis natural complexity in all its forms, that would seem like a dangerous place to make a stand. If the mechanisms of evolution are complex, it just means that we have to work harder at figuring them out. Once that's done, it's done!

Unfortunately, the Bible does not provide a road map to this end. We have to figure it out ourselves. But just because something is complex, this does not mean that it can't happen naturally. It just means that there is a greater number of variables that need to be "satisfied" for it to occur. But so what? Satisfy those variables, and it will happen.

Many patterns that are complex and highly unlikely (or at least seemingly so, as long as we are ignorant of the workings of their natural mechanisms) develop as a result of the interplay of natural variables. For example, if we did not know that a host of natural variables governs the formation of rain, we would be at a loss to explain the existence of rain shadows (i.e., orographic precipitation, the phenomenon whereby a much greater volume of rain falls on the windward side of a mountain range than on its leeward side). In our state of meteorological ignorance, we might ask, "What are the chances that rain would, in its vast majority, only fall on one side of a mountain range?" I believe that we would conclude that it would be impossible for this phenomenon to happen without God's direct involvement. No amount of time and chance could bring about that result. However, if we knew and understood the specific meteorological conditions that must be satisfied for rain shadows to occur, that knowledge would dispel our ignorance, and we would no longer need to appeal to the mysterious workings of God to provide an answer. Consequently, and without deliberately rejecting God, we would come to realize that rain shadows are a natural result of the way the world works. One could still choose to believe that God was involved, but that belief would remain within the realm of faith, because scientifically, God's involvement could never be proven.

From a scientific perspective, rain formation is ateleological. That is, the mechanisms that cause it to rain do not have the foresight to know that that is what they will accomplish. These forces of nature are not deliberately working towards a specific outcome, and yet highly distinctive and conspicuously non-random precipitation patterns develop. But how can rain, without guidance from God, "know" to fall only on one side of the mountain? If the forces of nature that cause it to rain are blind, how then do they accomplish the will of God? This is, of course, a meaningless question within the realm of science. A person of faith might claim that God is not frustrated by this kind of blindness. And so it is with evolution. Therefore, the rain analogy is a good argument against the need for teleology within the scientific realm when explaining the origins of biological diversity.

From this analogy, on which I continued to meditate in the days and months that followed, I concluded that I was free to take seriously the thesis that life in all its complexity and historical diversity could be the result of the interaction of many variables and processes in nature. Evolution, in other words (contrary to what I was taught and believed while growing up), wasn't devised specifically to deny the existence of God, any more than the science of meteorology was. It developed like any other branch of science, as biologists, paleontologists, and geologists sought to "subdue the earth," that is, to make sense of it and provide a natural explanation for what they observed. I felt as though a huge field of study had opened up to me.

Over the past 200 years, the work of paleontologists has given us a much clearer picture of the many bizarre and wonderful organisms that have lived on earth over the course of its 4.5 billion year history. I now rejoice in being able to have a part in the study of fossils. For me, the question of the origin of biological diversity no longer necessarily carries with it any theological baggage. It is simply a scientific question. Put it another way, the question of origins is only as theological as is the origin of rain.

I have come to the end of my story without having said anything about the natural mechanisms of evolution. Clearly, an understanding of these mechanisms was not the stimulus for this endeavor, and quite frankly, I don't really care one way or another what they might turn out to be. (I understand the broad strokes of the current theory of evolution. Whether the scientific understanding of the mechanisms within that theory will change is another story.) Rather, my goal has been to highlight the evidence that convinced me that young-earth creationism was untenable, and that there was good reason to look for comprehensible natural mechanisms that could account for the diversity of life through time. The result of my pilgrimage in understanding is that I am at liberty to study organisms past and present with a view towards, among other things, adding to our understanding of how life's diversity came to be. If, however, after becoming engaged in the enterprise, I find that I am dissatisfied with the natural mechanisms that have been proposed to account for any aspect of the evolutionary process, science offers its practitioners the luxury of being able to propose a better suite of natural mechanisms to account for evolution or any other natural phenomenon. This dissatisfaction must always push a scientist to propose a better explanation; it would be intellectually lazy, and unscientific, to claim that it simply must have happened as a result of direct, supernatural intervention by God.

I will remember my years in Drumheller as having marked that time in my life when I laid aside the anti-evolution tenets of young-earth creationism. However, there remained one major problem. If the Genesis creation account was not a literal telling of how things came to be the way they are, then what was it about? I had to know! I was unwilling to leave that tension unresolved indefinitely, even though I had wrestled with it for nearly ten years. Knowing that my brother-in-law, Chris Smith, had moved from a literalist interpretation to a new understanding of what the first chapters of Genesis were about, I went to him for help. As a result of his contribution to this book, many lengthy discussions, and a study of Biblical cosmology, I now have a substantially different understanding of the intent and message of the Genesis creation account. But I will let him tell his part of the story.