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THE REFUTATION OF BIRD EVOLUTION BY A STUDY  
OF FEATHERED DROMAEOSAURS  
AS A CREATED KIND

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A Thesis  
Presented to  
the Faculty of  
The Southern Baptist Theological Seminary

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Master of Theology

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by  
Donald Raymond Bledsoe  
December 2018

**APPROVAL SHEET**

THE REFUTATION OF BIRD EVOLUTION BY A STUDY  
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To my wife, Derema. Without her patience, love, and editing skills,

I would not have made it through seminary.

To my son, Lucas, so that he may know the ways of the Lord and not the world.

I dedicate everything I do to the Lord Jesus Christ who saved me.

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## PREFACE

I am not one to completely throw out the work of scientists, for they do great work in their respective fields. However, I am bound by my religious convictions to fully believe in Creationism and have sought to reconcile the two opposing views while remaining faithful to my convictions. I have always loved dinosaurs, and the discovery of feathered dinosaurs caused me to pause and think. I wanted to figure out a way to reconcile the fossil evidence of these feathered animals without bringing in the evolutionary idea of dinosaurs turning into birds. There are many divergent opinions of these animals and while I have researched this thoroughly, there may be ideas on these animals that I had not found. Be that as it may, I have represented the ideas expressed in this paper faithfully and correctly. This thesis represents what I have found after years of thinking and reading about these wonderfully created animals.

Don Bledsoe

Louisville, Kentucky

December 2018

## CHAPTER 1

### INTRODUCTION

#### **Birds Did Not Descend from Dinosaurs**

The origin of birds is a greatly debated topic. Most secular scientists seek to use a group of feathered theropod dinosaurs called dromaeosaurs as proof of the evolution of birds; however, a small group of dissenting secular scientists have developed alternative views explaining how to classify these animals. These scientists and their movement are collectively referred to as Birds Are Not Dinosaurs (BAND). Some of the alternative views are accepted by young earth creationists (YECs) because they take the concept of dinosaurs evolving to birds out of consideration. Creationists have historically settled on three views to explain the presence of feathered dinosaurs and their relationship to birds.<sup>1</sup> The first is that dromaeosaurs are in fact a type of bird but have been misclassified. This idea is one of the easiest for creationists to adopt for all it requires is to reclassify this certain group of animals under a new banner. Nothing is actually changed except the shifting of a human-invented classification system. As a meaningful remark, this view does carry an evolutionary element but has been ignored by those who wish to adopt it. The second and third responses by YECs involve debunking the evidence at some level by stating that the fossilized structures are not feathers at all but are remains of decayed collagen fibers. The last stand is the fossils themselves are fakes. A case exists where

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<sup>1</sup> Natural Historian, “How Have Young-Earth Creationists Responded to Feathered Dinosaurs?” *The Natural Historian*, June 18, 2018, <https://thenaturalhistorian.com/2018/06/30/how-have-young-earth-creationists-responded-to-feathered-dinosaurs.html>.



several fossils were combined to give the appearance of feathers on the animal.<sup>2</sup> This animal was called Archaeoraptor before it was found to be a fabrication. Some fakes have been discovered, as stated previously, but the wealth of genuine fossil remains to discount this assessment. These last approaches involve just simple denial and seem to be in opposition to clear evidence, in most cases, of feathers on these animals. This paper proposes that dromaeosaurs should be viewed as neither bird nor dinosaur but a separate creation similar to both kinds of animals. Precedents exist for this view in nature as many animals share characteristics but are not related directly to each other. Each of the perspectives given above will be weighed. The conclusion will support the view that classifies dromaeosaurs as one of the original created kinds on the fifth day of creation week. This conclusion will be shown to be the most biblically sound, consistent with observable nature, and aligns with young earth creationism.

Secular science states that dromaeosaurs are a specialized branch of feathered dinosaurs from the maniraptoran theropod lineage. Dromaeosaurs include velociraptor, dromaeosaurus, microraptor, and some others. These distinct animals are specifically addressed in this thesis. Dromaeosaurs vary in size from the smallest member microraptor who was approximately 2.5 feet from beak to tail and the utahraptor who was over 21 feet long. The velociraptor, despite what popular culture portrays, was about the same body mass as a turkey. Several other types of feathered animals fall under the classification of maniraptorans such as the therizinosaur, oviraptors, and five others, but for the purposes of this work, the focus will be on dromaeosaurs only<sup>3</sup> for the sake of clarity and distinction

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<sup>2</sup> Hillary Mayell, "Dino Hoax Was Mainly Made of Ancient Bird, Study Says," *National Geographic*, November 20, 2002, [https://news.nationalgeographic.com/news/2002/11/1120\\_021120\\_raptor/html](https://news.nationalgeographic.com/news/2002/11/1120_021120_raptor/html).

<sup>3</sup> The other five maniraptoran groups that represent unique created kinds are the Scansoriopterygidae, Therizinosauria, Alvarezsauridae, Ornithomimosauria, Tyrannosauridae, and possibly one coelurosaur. There is a greater amount of information on these groups in Matthew A. McLain, Matt Petrone, and Matthew Speights, "Feathered Dinosaurs Reconsidered: New Insights from Baraminology and Ethnotaxonomy," in *Proceedings of the Eighth International Conference on Creationism*, ed. J. H. Whitmore (Pittsburgh: Creation Science Fellowship, 2018), 472-515.

between animals discussed. As far as other feathered maniraptorans are concerned, fossil evidence points to smaller members of the tyrannosaurids, such as yutyranus and dilong, that bore filamentous feathers, which are included among the maniraptoran group. By way of distinction, theropod dinosaurs include allosaurs, ceratosaurs, and several other carnivorous dinosaurs. Those animals have few anatomic similarities to the smaller dromaeosaurs other than bipedalism and three-toed feet. Dromaeosaurs, for instance, have longer arms than the large theropods.

Some specific terms are important to note when speaking about these animals; the distinctions between these terms are subtle and can be confounding. Avialans are animals that comprise both the ancient and modern birds in both creationist and secular science. Examples of these animals would be the blue jay, pelican, and confuciusornis. However, secular science also puts theropods under the avialans classification, but this is incorrect according to the creationist baraminological classification system.<sup>4</sup> When speaking of modern birds alone, they are in the group called avians. These would be all extant birds like the golden eagle, ostrich, and robin. The movement in the secular sciences to place all birds in the dinosaur group is due to feathered animals like the dromaeosaurs because they represent a clear evolutionary process from dinosaurs to birds. Creationists do not adhere to this idea. A creationist is fine in knowing dromaeosaurs have feathers and are not related to avialans for God created a wide diversity of animals; many share characteristics and yet are not closely related to each other. The distinction between dromaeosaurs, birds, and theropods will be discussed in greater detail later in this work, and it will be clear why dromaeosaurs represent a unique creation.

This thesis is written from a YEC perspective. While there are some questions about how young earth creationism perspective is handled by various ministries, YEC seems to be the clear biblical teaching on the matter of God's creation. Several stances

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<sup>4</sup> This secular classification system shows the efforts of secular science to merge dinosaurs into the bird family. The chapter on bariminology and cladistics will discuss further why the secular model is not tenable.

are assumed as fact for the purposes of this paper and include the following: the Bible as the inerrant Word of God is a foundational and reliable source of information on the creation event. God created the entire universe in six twenty-four-hour days as depicted in the Genesis account and the creative event took place approximately 6,000 years ago. The fossils of extinct animals found today were a product of the Noahic global flood. When evolution is generally spoken of, it is defined as undirected, naturalistic changes in biological life and universal common descent.<sup>5</sup> The ability of animals to hybridize and diversify is not the same as naturalistic evolution because of the opposite views of descent and the rejection of God in evolutionary ideas. Creationists know that animals do change over time and the original created kinds probably bore little resemblance to the animals seen today. Though there are observable changes in animals in the fossil record, creationists hold that the animals cannot shift from one kind to another but can vary within the kind over time. The creationist calls this *common descent*, which indicates that the modern house cat descended from one of the original created cat kinds. Conversely, the idea of humans descending from apes through millions of years is not acceptable to creationists due to the shift between kinds. Naturalist evolution states that every organism is descended from either a single cellular life form or organic molecules that formed without direction sometime in the remote past. Secular evolutionists refer to this as *universal common descent*. Creationist diversity states that the plethora of life seen in the modern biosphere descends from the multiple original created kinds in the Genesis account. Methodological naturalism is the view that all science should explain the natural world without reference to a God or any other creative, designing supernatural force. This viewpoint insists that natural processes alone are responsible for all that is seen in nature and is governed by the laws of physics, chemistry, biology, and other natural laws.<sup>6</sup> This bias is commonly called *scientism*, in which the believers hold to the idea that science

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<sup>5</sup> Evolution does apply to plant life as well; this discussion is confined to animals only.

<sup>6</sup> Stephen Hawking and Leonard Mlodinow, *The Grand Design* (New York: Bantam, 2010), 9.

holds all the answers to everything, including things not yet discovered. Scientism is an offshoot of the larger movement called *modernism*, which was spawned by the Enlightenment. One illustration of how scientism influences ideas is where neurological sciences claim that the mind is nothing more than a specific set of neurons triggered when certain thought processes are engaged; no metaphysical mind or soul is present, just the dictates of chemistry. Science solves the mystery of everything under this set of beliefs.

Many of YEC ministries have issues with feathered dromaeosaurs, but fossil evidence is solid at this point and should not be a concern as it does not necessarily prove the secular science view on evolution. This thesis also seeks to show that YECs can easily fit these animals into their model without compromising biblical truth. Science in and of itself studies the truth of general revelation, the fact that God created. However, secular scientists, while having access to the same information as creationists, often arrive at incorrect conclusions because of their commitments to methodological naturalism.

The second chapter will discuss the basic tenants of secularist/evolutionary theory and creationism. It will explain the evolutionary concepts are rejected by many Christians and especially YECs. The third chapter will investigate the current system of classification of animals first accomplished by Carl Linnaeus and modified by others up to the current cladistic taxonomy system. Through this examination, baraminology, which is the study of the classification of the created kinds in the Bible, will be shown to be far superior to the current clade system for describing the relationships between animals present in the fossil record and the animals living today. The fourth chapter will be a study of the comparative anatomy of dromaeosaurs and ratites, which are flightless birds like emus, ostriches, and others. Dromaeosaurs resemble ratites more closely than flying birds in anatomy, which makes for a better comparative study. The chapter will show the skeletal differences in the flying and flightless birds in the furcula, keel, and bone composition. Another factor discussed is the structure of feathers of flightless birds in comparison to flying birds. Secular science states that flightless birds were once able to fly and lost that

ability over time, but it is more reasonable to conclude that flightless and flying birds are similar but separate created kinds. Research has shown the genetic evidence for birds having the genes to grow either teeth or a beak. This is evidence for adaptation, not evolution. Several non-controversial examples of fossil birds with teeth are present in the fossil record, such as *Ichthyornis*. The “birds are maniraptoran theropods” hypothesis has a great amount of research and materials associated with it and the content of that position is comparatively larger than others; however, the theory is not the most biblically sound and does not conform to what can be observed in nature and therefore does not offer the best explanation for feathered dromaeosaurs. In the end, it will be demonstrated that dromaeosaurs are incorrectly grouped with dinosaurs or birds and should be classed as a unique group under the clade and baraminological systems to give a more accurate and proper distinction to these ancient animals.

## CHAPTER 2

### SECULARIST EVOLUTION AND CREATIONISM

The two major western worldviews on the subject of origins of life are evolution and creation.<sup>1</sup> While there is a minority of other views from eastern or aboriginal sources, they fall outside the scope of this paper. Creationism is the dominant explanation in the Judeo-Christian religious traditions for how everything came into existence. Within the various branches of these religions, some differences of views abide, but the basic idea that God created is foundational. Islam, being considered a Mosaic religion, is also creationist.<sup>2</sup> Secular evolution believes that life arose out of organic molecules millions, possibly billions, of years ago and formed the first single-celled organisms and through those beginnings, all life arose to its present diversity. This process is undirected and requires no God to start the formation of anything.

#### **Creationism in the Judeo-Christian Traditions**

“In the beginning, God created the heavens and the earth” (Gen 1:1).<sup>3</sup> The Bible is the source of information for creationists on how everything came into being. The Judeo-Christian tradition of the origin of the world is that God created. Variations exist as to how and how long this act took, but the steadfast assertion is that God had a hand in it

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<sup>1</sup> Evolutionary concepts have been extended by secular scientists to all aspects of the physical world, such as geology and cosmology. While geology will be discussed in short as it relates to the fossil record, other discussion of evolutionary ideas outside of biology are beyond the focus of the paper.

<sup>2</sup> Mosaic religions are those that tie back to Moses, such as Judaism and Christianity. Islam is considered Mosaic because Muslims consider the Pentateuch a holy book along with the Qu’ran. Muslims refer to Jews and Christians as “the people of the book.”

<sup>3</sup> All Bible quotations are from the New American Standard version.

all. The diversity of thought on this matter condenses to the factors of time and biblical interpretation.

Those who hold to complete biblical inerrancy believe that the Bible presents a literal and accurate account of the creation. The universe and everything in it was created in a period of six days of twenty-four hours each, every day of creation is represented factually, and should not be seen any other way. Humans were a special creation of God separate from animals and plants. Genesis 2:19 shows that animals and man were made in a similar fashion from the ground, but only man carries the image of God. In this view, the world is a recent creation, perhaps only six to ten thousand years old, according to calculations of times and genealogies given in the text. This view is known as Young Earth Creationism. Within the YEC framework, the small variations of the perspective amount to differences of opinion of minute details, but these do not significantly impact the general YEC view.<sup>4</sup> An example of this is the idea that the earth and universe were created mature and therefore have the appearance of age but was still young in actuality. This idea was formed as somewhat of a compromise to justify why the earth and the universe appear to have aged. One issue used to support this idea is that all created animals and humans were of breeding age and therefore mature. It follows that God, being consistent, would have created the rest of the universe in the same way. Some YECs reject this notion because they feel it implies that God is being deceptive in the creation of “artificial age.” While this is a reasonable concern, the logic of God’s uniform maturity in the creation seems to alleviate the idea of God misleading humanity.

Old Earth Creationism is much the same as the YEC, but with a longer period of creation, as the name implies. Generally, the days of creation are not seen to be twenty-four-hour days, but eras or ages. God still created exactly the way depicted in the Bible, but the times were more metaphorical. Old Earth Creationists (OECs) offer variation on

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<sup>4</sup> Theodore Cabal and Peter Razor II, *Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth* (Ashland, OH: Weaver Book, 2017), 121-70.

how old the earth is, ranging from the secular scientific dating to a timeline closer to the YEC one. OECs can avoid some of the questions secular science levels at YECs due to their beliefs in the age of the earth. Those who hold to OEC are believers in biblical inerrancy as well but to varying degrees.<sup>5</sup>

Theistic evolutionists represent the greatest departure from the prior two creationist groups in that they fully accept the secular science explanation of the origin of the universe with the proviso that God used evolution to create. They believe the universe is 14.5 billion years old and life was made in the same fashion that secular science claims, but God started and directed it knowing that the process would give rise to everything seen. Evolution does happen in this view; however, it is God who has placed adaptability into his creations. This view of evolution is the dominant perspective of the Catholic Church. Adam, under this scenario, can be seen as the first Jew, or representing the entire group of the first homo sapiens. Theistic evolutionists also reject the creation of Adam as the first human and as a special creation. One of the explanations that theistic evolutionists would say in regard to Adam is that perhaps he represents the first spark of human consciousness in the evolutionary chain from apes. Adam is not a single individual, but a large group of early humans that evolved this special quality around the same time. This is similar to one of the Catholic lines of thought on Adam. The issue with theistic evolution is with origins and universal common descent. While theistic evolutionists argue that God made the materials that He knew would eventually become everything, protestant Christianity and YECs rejects this on the grounds of special creation *ex nihilo*. Further, the issue of secular evolution, which theistic evolutionists believe to be true, posits that all life arose by accident and due to random, undirected natural causes. Theistic evolutionists try to bring God into that framework, but it cannot fit reasonably due to the inherent naturalistic bias.

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<sup>5</sup> There is a detailed discussion of this in Cabal and Rasor, *Controversy of the Ages*, beginning on p. 175. This discussion is important to note, but falls outside the focus of the paper, therefore is not fully elaborated on.



Universal common descent is such a basic feature of evolution that it cannot be excised from the view simply by adding God.

One of the main reasons Christians are concerned with the creation and how it is depicted has to do with how reliable the Bible is considered. A compromise to the biblical narrative of creation could undermine the authenticity of the whole book. One's interpretation of Genesis as a metaphor, or as a true and accurate account, or an import from other regional religions, or nothing more than a fanciful tale, greatly affects one's view of the authority of the Bible. Various YEC ministries are of differing opinions as to how crucial getting the correct view of creation is to one's faith. One of the larger YEC ministries emphasizes the necessity of Young Earth Creation to one's faith and without this viewpoint, salvation could be in question. They feel that if one is to compromise on creation, then there is nothing to stop a compromise in other areas in the Bible. However, if they want to avoid that slippery slope argument, they can state that the compromise on the literal account on the creation corrupts biblical inerrancy. While there is much debate across the spectrum of YEC to OEC, this does not have to be a salvation issue. A range of acceptable beliefs are extant within most theological doctrine and creationism is no different. Orthodox Christianity allows for both YEC and OEC, but an idea such as the creation account is just a synthesis of other ancient near east literature falls outside of orthodoxy and into the liberal theological territory. There can be no doubt that God created as a foundational belief for the Christian, especially when encountering the secular view of evolution and universal common descent.

### **Darwinian Evolution in the Secularist Worldview**

Charles Darwin's work based on his studies of animals in nature was published in 1859. His ideas were not completely original; however, they caught on with the Enlightenment culture of the time and eventually were accepted as the legitimate way to

think about the origins of the world.<sup>6</sup> Darwin's ideas have been modified in the past one hundred and fifty years as science progressed, but the essential base of his theory remains intact. His concept of universal common descent has been taken further than he envisioned because of the limits of science in the nineteenth century. The secular evolutionists of modernity have taken the origin of the species back to organic molecules that somehow made the jump to single-celled life. Recently it has been posited that this primordial single-celled life, referred to as protokaryotes, kick-started multicellular life by absorbing each other.<sup>7</sup> One of the protokaryotes would effectively swallow another and then the one would have the material of both protokaryotes inside itself, thus forming the first eukaryote. This process continued until multicellular life formed and took hold, eventually producing every single plant and animal on the planet over the next few billions of years. According to evolutionists, these events took place by natural processes. It seems implausible that all life on this planet was a random factor of chance and time. Stephen Meyer, of the Intelligent Design movement, states that Darwinian evolution could not be true and he showed the odds of a random occurrence of chemical interactions to produce a simple protein were astronomically high. To further support this assertion, he demonstrated there was not enough time since the assumed Big Bang time frame for this to have happened.<sup>8</sup>

In discussing these types of questions secular scientists claim that evolution is undirected. Evolution would have to be undirected because within its model there is much randomness and many evolutionary dead ends. Evolution, according to some, can also make huge leaps forward within a generation or two, or in a few cases, can run backward. Animals, like everything else, have an inherent order to their biological systems otherwise

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<sup>6</sup> Evolution dates to Greek and Lamarck. See Cabal and Rasor, *Controversy of the Ages*, 52.

<sup>7</sup> John Gribben, "Alone in the Milky Way," *Scientific American* (September 2018): 94.

<sup>8</sup> Stephen C. Meyer, *Signature in the Cell: DNA and the Evidence for Intelligent Design* (New York: HarperOne, 2009), 215-28.

nothing would work or exist. Organs work to process food; senses give a picture of the world and so forth. Far too much order and direction are present in the universe to ignore or to explain by a view of random chaos, which simple observation makes untenable. Attempts to disprove the perceptual order and fine-tuning of the universe have advanced speculative theories about multiple universes and the idea that we just happen to be in a universe in which chance has given rise to order.<sup>9</sup> In this scenario many, if not all, of the other universes are chaotic. It is by probability alone that humans came about in an ordered universe to observe they are in an ordered universe. But these sorts of theories are unprovable and counterintuitive. This does not mean that imagination plays no part in trying to make sense of creation, but there is fanciful and there is reasonable. When one observes animals past and present by looking at their anatomy, it seems much clearer and truthful conclusions can be drawn without having to twist reality.

The denial of creation is a salvation issue, according to the Christian. This is the foremost problem with the secular evolutionary view. By adopting the secular view, one buys into a viewpoint of the world that is without purpose and direction. One may not be aware of the full significance of accepting evolution as they may think science provides the answers to life's big questions, but it only worsens them. The evolutionary worldview says that life is an accident and came about strictly by chance. Nature is without direction, which implicitly asserts that there is no purpose to human life. Many secularists have emphasized this idea in an attempt to make humanity look less special than it is. The rationale behind this idea is that by denying the specialness of humanity, one can avoid the theological implication of mankind's creation, which is a ramification unacceptable to them.

When setting aside the theological consequences from this movement, those who champion this cause claim they are trying to remove humanity's self-centeredness.

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<sup>9</sup> Stephen Hawking and Leonard Mlodinow, *The Grand Design* (New York: Bantam, 2010), 166.

These efforts often fail for various reasons. One of the problems in attempting to push this view is one of common sense. If all life is equal and humanity is nothing special, then why would secular laws prosecute a human intentionally killing another human, but not intentionally killing a grasshopper? The answer is simple: human life is special. It is self-evident that humans are fundamentally different from any other animal. For the Christian, human life is special because of the image of God that puts humans above other life. The secularist may not be willing to accept or recognize the specialness of humanity, but the sense of specialness is embedded in humans and cannot be reasonably denied. A cursory examination of humans in relation to the rest of nature reveals this truth even without appeal to a deity. Despite this, the secularist is so committed to naturalism and the subversion of purpose in human life that he must adopt extremes outside of observational facts. This is also true in the case of feathered dromaeosaurs. The duty to the evolutionary ideal has forced secular scientists to make these animals a step in the evolution of birds when several other ideas are just as viable.

CHAPTER 3  
TAXONOMIC CLADISTICS AND BARAMINOLOGY

The classification system known as cladistics is a way to measure the occurrence of similar structures in various life forms. The purpose of cladistics is to chart similarities in skeletal features and other anatomical aspects to better see the relationships of animals to each other. This system works well with living animals as they can be observed in their environment. Baraminology does something similar operationally, but it also compares how organisms are different structurally to establish discontinuities between animal types. This system works well with living animals but works just as well with extinct ones.

**Cladistics**

Cladistics is a systematic way of comparing a wide range of anatomical features of living organisms in an effort to discover relationships between them to classify them in phyla, families, and other distinctions. The researcher would create a matrix with a specified number of fields to measure and then input the characteristics of each animal he is comparing, and the resulting data output shows the relationships. As a basic example, the scientist would compare the teeth of mice and beavers, noting similar characteristics, and determining that both animals should be classified as rodents. Cladistics is helpful with living things where the knowledge of the organism is more comprehensive. Observational, behavioral, and environmental factors assist in making determinations. The system becomes less efficient when presented with extinct animals because it is based on the evolutionary notion of universal common descent which can skew the relationships between living and extinct creatures. Cladistics measures only features that the animals have in common to discover relationships, whereas baraminology measures similar and dissimilar features, therefore giving a more accurate result. A simplified example would

be humans and horses. Both share the common features of body hair, two eyes, and two ears, but humans are bipedal where horses are quadrupeds.

A main problematic issue in cladistics is with categorizing fossilized animals. A difference of opinion exists between scientists in regard to the placement of some animal branches. Of the several clades describing dinosaur and bird relationships, virtually none of them agree with each other.<sup>1</sup> The most contended point is where to fit avialans into the relationship line. Some place avialans as a derived branch in various spots of theropoda, which led to modern birds; some place them as a branch of archosauria alongside dinosauria.<sup>2</sup> If the clade system is an accurate measure of the relationship between animal lineages, then there should not be a question as to where Aves or Therapoda should go. The direct results of the cladistic analysis should dictate the placement, however, it does not. In the secular classification a sub-division of dinosaurs are described as non-avialan and another as non-avian. This description seems to indicate that there are non-avialan dinosaurs, like a triceratops, that are unrelated to modern and ancient birds, and there are non-avian dinosaurs being unrelated only to modern birds but are related to ancient birds. These distinctions seem to lead to much confusion. Archosauria, in secular evolutionary terms, is the group of animals from which dinosaurs, pterosaurs, birds, and in some cases, crocodylians evolved. Few fossil remains of archosauria have been discovered and those are contentious as well. One of the archosaur fossils is an animal called longisquama, of which only the skull and some of the forward limbs and body remain. This small amount of fossilized remains is typical of what paleontologists have to work with to figure out

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<sup>1</sup> I have made a conscious decision not to include graphic cladograms in this paper because they can be confusing and there are many. It is also difficult to describe cladograms in writing so the discussion of them has been kept short. Many bibliographic entries include cladograms and an interested reader can look at those sources.

<sup>2</sup> Stephen A. Czerkas and Alan Feduccia, "Jurassic Archosaur Is a Non-Dinosaurian Bird," *Journal of Ornithology* 155, no. 4 (2014): 841.

these creatures. Cladistic analysis of the longisquama revealed a weak connection to birds and to maniraptorans.<sup>3</sup>

This segues into another issue with paleontology in general. Many instances can be shown where animals are fully described using only partial fossil remains. For example, in the case of the spinosaurus, until a mostly complete fossil skeleton was found, the only remains scientists had to go by was the animal's forelimb. Using only the forelimb, scientists made a multitude of conclusions about what this animal looked like, relative size, and behaviors, such as carnivory. Granted, the scientists had little to work with and made educated speculation on the spinosaurus that had a high probability of correctness, but it was still speculation presented as hard data. When the more complete skeleton of spinosaurus was found and identified, many of the ideas about the animal changed. The sail structure the spinosaurus had on its back was a complete surprise because the spinosaur's suspected relative, baryonyx, did not have this structure. Scientists work hard and expend a great deal of time in their research to present their findings. One can appreciate that they sometimes have little to work with and are pushed to find comprehensive answers, but it seems dishonest to present speculation as actual fact.

### **Created Kinds**

When the created kinds of animals and plants are spoken of, it refers to the acts of God in the creation week where he brought all plants and animals into being. This act is detailed in Genesis 1 and 2:

Let the waters teem with swarms of living creatures, and let birds fly above the earth in the open expanse of the heavens." God created the great sea monsters and every living creature that moves, with which the waters swarmed after their kind, and every winged bird after its kind. (1:20-21)

Then God said, "Let the earth bring forth living creatures after their kind: cattle and creeping things and beasts of the earth after their kind"; and it was so. God made the beasts of the earth after their kind, and the cattle after their kind, and everything that creeps on the ground after its kind. (1:24-25)

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<sup>3</sup> Frances C. James and John A. Pourtless IV, "Cladistics and the Origin of Birds: A Review and Two New Analyses," *Ornithological Monographs* 66 (April 2009): 24.

The descriptions in Genesis are general; however, when combined with other mentions in the Bible of these animals, much can be determined about these creatures in their created kind state. One of the ways to make distinctions is to look at the creation days. Besides separating the animals by kind in name, such as creeping things, beast of the field, and so forth, there is a separation of animals because of the differing days of creation. The significance here is that if the animals were created on separate days, they were not able to breed with each other for they would be separate kinds. A representation of this idea can be seen with birds. Scripture specifically says that flying birds were made on the fifth day. By implication, it is possible that the non-flying birds such as the emu and ostrich were created on the sixth day with the rest of the land animals. Considerable debate is present about the origins of flightless birds in both creationist and evolutionist circles, but this thesis assumes the creation of ratites on the sixth day.

When trying to determine created kinds, Genesis is the obvious first place to look, but other books such as Job are also instructive. Biblical studies place Job in the historical timeline around Abram. This testifies that there are several domesticated animals by that point in history. Genesis 4 also shows that animal husbandry was as early as Abel as he was called a keeper of flocks. The animal population also appears to have multiplied for there to be the existence of flocks by the time of Abel. It is not explicit in the Scriptures how long of a time passed between the Edenic expulsion and the birth of Cain and Abel, but the inference is that domesticated animals may have been one of the original created kinds. To study this possibility, one would look for the occurrences of the word for “sheep” in both the original Hebrew and reliable translated versions by using Strong’s concordance. Through this analysis, one can find the first mention of “sheep,” how they are described there, and how they are described in the post-Flood narratives. It is important not to have an eisegetic bias when conducting the research as it would lead to incorrect results. In *Understanding the Pattern of Life*, Todd Wood states,

Baraminic groups should not be defined on the basis of a single characteristic, such as wood or flight. Doing so invariably leads to difficulties in reconciling biology with our narrow view of Scripture. By maintaining an open and critical mind, we



can avoid the pitfalls of reductionistic biology. Careful attention to both biology and the Scripture should help us discriminate between terms used as classification and terms used as description.<sup>4</sup>

God told all the animals to multiply after their kind, which is an important distinction for creationists. The originally created animal and plant kinds were only able to multiply within their own kind. This means that dogs can breed with dogs, but not with cats. It does not mean that when God created the kinds He did not make a single breeding pair. Depending on the animal in the discussion, there may be any number of original created kinds. For example, in the case of canids, there could have been wolves, coyotes, dogs, foxes, and dingoes as original kinds. Creationists assert that all present biological diversity can be traced back to the original kinds and thus are related to each other within the kinds. This is common descent but not universal common descent. To further the diversity of the original kinds, there may have been many dog baramins that gave rise to the wide range of dogs seen today. For example, there are very small dogs like the Pekinese and large dogs like the Mastiff. In the creation event, the dog baramins may have been created by size or other distinguishing features. This goes against the evolutionary ideas of universal common descent where everything is related to every other thing by some degree. Creatures do share common features like the hair on mammals and scales on fish, but this does not indicate any kind of ancestral relationship between them. As an illustrative example, two mammals like a monkey and a cow both have mammal hair but are in no way related to each other. They share a common hair feature given to them by God when He made them. Monkeys and cows are separate created kinds and therefore cannot breed. This fact is obvious to creationists, and to a certain degree evolutionists know it as well, even though they reject the notion of created kinds and hold to a universal relationship of life. Nonetheless, animals that are closer in relation to each other also cannot breed. Chimpanzees and gorillas cannot produce offspring, nor can dairy cows and water buffalo.

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<sup>4</sup> Todd Charles Wood, Megan J. Murray, and Kurt P. Wise, *Understanding the Pattern of Life: Origins and Organization of the Species* (Nashville: Broadman & Holman, 2003), 54.

Recognizing these relationships in the present helps baraminological research discover the range of original kinds in creation.

Michelle McConnachie conducted a scriptural word search both in the original languages and in five English translations in an attempt to find the created kinds of a group of birds called galliforms.<sup>5</sup> Using the results of the word search she produced a chart of all references to birds in the Bible to narrow down the created kinds of the galliform birds. Applying the tools of baraminology, she found at least four created kinds of the galliform birds. The same has been done with turtles and various other animals including the feathered dromaeosaurs and the seven other feathered animals that will be examined later.

### **Strata**

An important aspect of determining baraminological relationships is to determine what level in the geologic strata the animals are found. This gives insight as to ancestor-descendent kinship. The idea is that the oldest animals, therefore the earliest baramins, are in the lowest levels of the strata. The animals of the same family found in the fossil record of higher strata would represent descendants. One can use this data to test the lineage of creatures and how they adapted over time. In secular science, there is debate about how strata formed and can cause divergent ideas about how old rock formations are. Two basic concepts in secular science explain geological processes: gradualism, also called uniformitarianism, and catastrophism. To put it simply, gradualism posits that the strata were laid down gradually over millions of years and the oldest deposits are in the lowest strata. Catastrophism postulates that there is some gradual activity but many formations are created by catastrophic short-term events. Age of the strata in this view can be difficult to determine because of the relative rapidity to the catastrophic events.

In creation science, there is a wider range of concepts for the geological record. Several fall under the general catastrophism model because of the belief of the Noahic

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<sup>5</sup> Michelle McConnachie, "A Baraminological Analysis of the Land Fowl (Class Aves, Order Galliformes)" (BA thesis, Liberty University, 2007), 23.

flood shaping the world as it is known now. Explaining the age of the earth, fossils, and the geological processes that have been at work has been going on for centuries.<sup>6</sup> Theories ran the gamut from Satanic creations to natural but odd rock formations that only resembled bones. With the advent of modern geology, the age of the earth and how formations came to be has been the center of great controversy between the YECs and OECs. The YECs basic position to explain modern geography is somewhat conflicting. YECs maintain that the geological record is not like what modern gradualist geologists believe, which is regular and uniform. Gradualism supports evolution, something which YECs do not hold. YECs believe that the geological record is markedly influenced by the occurrence of the Noahic flood, therefore adopting a more catastrophism model. The conflict comes because YECs realize that there is also a definable order to the geological strata. Andrew Snelling of the Institute for Creation Research stated that there is undeniable order to the geological column, but evolutionary models are not necessary to explain the order of the fossils found in levels of strata.<sup>7</sup> Similar to what will be shown later in this thesis with dromaeosaurs, the imposition of evolutionary ideas onto the fossil evidence is only due to the bias of the scientist. The fossils themselves, as with the geological column, do not dictate evolution based on their existence. The stratum does represent the geological activity of the earth and can be used reliably to determine ancestor-descendent likeness without the factor of millions of years. A wealth of other material about geology occupies YEC literature but falls outside the scope of this thesis. Baraminology makes use of strata locations to determine kinship and adaptation, therefore the starting assumption is of order to the geological column.

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<sup>6</sup> Theodore Cabal and Peter Rasor II, *Controversy of the Ages: Why Christians Should Not Divide over the Age of the Earth* (Ashland, OH: Weaver Book, 2017), 99-121.

<sup>7</sup> Andrew Snelling, noted in Cabal and Rasor, *Controversy of the Ages*, 152.

## Baraminology

Baraminology is a biblically reliant classification system for flora and fauna. It seeks to classify and draw relationships between animals based on created kinds. It differs from the modern cladistic approach in that baraminology compares differences as well as similarities in animal characteristics to gain a better understanding of the created kinds in Genesis and other animals noted in the Bible. McConnachie, paraphrasing ReMine, explains some terms that are helpful in understanding baraminological concepts:

ReMine describes the holobaramin as “a complete set of organisms related by common descent.” A monobaramin includes organisms that are related by origin, but not necessarily all of them. Thus, a monobaramin may be a holobaramin, but many times it is just a part of the holobaramin. An apobaramin is a group that includes every descendant or ancestor for each individual contained inside of it. An apobaramin may be divided into subgroups that are not related to each other. Part of ReMine’s definition is that an apobaramin contains either one or more than one separate holobaramin. An apobaramin, then, is either broader than a holobaramin, or else by definition it is a holobaramin. Lastly, ReMine introduces the term polybaramin. Within a polybaramin are organisms that do not all share the same ancestor. There is always more than one baramin represented in a polybaramin.<sup>8</sup>

Holobaramins are typically close to the original created kind, but not necessarily the first created of a kind of animals. To use the canid example from earlier, the holobaramin of wolves would contain the timber wolf, gray wolf, and the other variants. Kurt Wise coined the term “archaebaramin” to describe the first created animals. The archaebaramins are depicted in Genesis 1:20-31 and again in Genesis 2:18-20.

The development of the baraminological system can be credited to ReMine and Wise. The system is broken into fifteen questions the researcher must ask of the evidence in order to build a matrix of probable relationships. These criteria were refined to a more practical state of yes or no questions to better get at the associations. The inquiry measures include the following: Do the verses in the Bible seem to indicate that the group of animals in question is an apobaramin? Are the animals in question able to breed and produce offspring? Is it difficult to determine the ancestry for the animals in question? Is it unclear if one animal group is on the same lineage as another? Are there shared characteristics

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<sup>8</sup> McConnachie, “A Baraminological Analysis,” 9.

between the living animals and the fossilized remains? Is the target animal group lower in the strata than the assumed ancestral animal group? Are the animals of the target group found to not be lower in the strata than animal groups that are morphologically similar? Do the target animals that resemble the assumed ancestors placed in the lowest levels of the strata? Do the animals within the target group have more similarities with each other than they do with others outside their group? Are the animals able to produce viable offspring under forced breeding rather than naturally occurring reproduction? Are there independently derived characteristics within the target group that are found outside the group? Does the target group of animals have greater molecular similarity within the group compared to animals outside the group? Are there major differences in the ecology of the target group compared to other animal groups? Is the target animal group in a different trophic classification than animals in other groups? Is the target animal group able to be found in the flood sediments?<sup>9</sup>

Once these questions have been answered for animals or groups of animals, a grid array can be constructed to illustrate the probability of relationships between the animals or groups. The matrix can also be used to identify potential holobaramins and animals within the holobaramin group. Within the baraminological system, the holobaramin is the top classification. Unlike the cladistic system, there is no class such as kingdom, phyla, or others above the holobaramin. Any attempt to make categories above the holobaramin would be artificial and also would tend to be confused with the secular cladistic system.<sup>10</sup> The baraminological system of classification is superior to the secular clade system in that it not only compares similar animal characteristics such as bone structure, environment, and other factors, but it also shows the characteristics the animals do not share. These are called discontinuities and the shared characteristics are called continuities. In the case of the feathered dromaeosaurs, baraminology can demonstrate

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<sup>9</sup> Kurt P. Wise, "Practical Baraminology," *CEN Technical Journal* 6, no. 2 (1992): 122-28.

<sup>10</sup> Wise, "Practical Baraminology," 133.

that these animals, while sharing many close characteristics of birds and dinosaurs, also show significant differences. Baraminological studies can reveal just how close the lineage is, like in the case of dromaeosaurs. McLain, Petrone, and Speights write,

To an evolutionist, the growing lack of a significant anatomical gulf between theropod dinosaurs and birds is not surprising, since it was predicted by the hypothesis that birds evolved from theropods. To a creationist, the lack of a significant anatomical gulf may not have been predicted, but it need not be troubling. Our baraminological analyses reveal the presence of discontinuities between groups of feathered animals assumed to belong to separate created kinds, so it does not concede or imply evolution.<sup>11</sup>

This system is useful to the YEC because it demonstrates a wide range of animals created at the same time that are distinct from each other in various ways without having to bow to evolutionary concepts. The cladistic system assumes evolution and the idea of every creature spawned from a single, accidental life form in the unreachable past.

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<sup>11</sup> McLain, Petrone, and Speights, "Feathered Dinosaurs Reconsidered," 504.

## CHAPTER 4

### COMPARING PHYSIOLOGIES OF FEATHERED DROMAEOSAURS WITH FLIGHTLESS BIRDS

To better see the similarity between these animals, a general description of each will be useful. The first group in the discussion is the flightless birds known as ratites. Ratites include living birds such as the emu, cassowary, ostrich, and rhea as well as extinct birds such as the roc and moa. They are distinct from flight-capable birds in their feathers and skeletal structures. Dromaeosaurs share some of the same features but have distinctions that separate them from bird ancestry.

#### **Feather Comparisons**

The feathers of the ratites are functionally different than those of flying birds. Flying birds have wing feathers with a central shaft and are asymmetrical, with stiff filaments held together by barbules, which are interlocking hooks that form a flat smooth surface to enable flight. The airfoils on airplane wings incorporate the same concept to enable lift. The leading edge of the wing is thicker and tapers toward the end. In contrast, ratite feathers are of the downy, unconnected filamental type that is used for warmth, display, and coverage rather than flying. These types of feathers are soft compared to their flying counterparts. Evolutionary scientists claim that the filamental feathers, which have been found on some dromaeosaurs, represent the earliest stage of feather development from scales. The specialized flight feathers came later and were higher on the evolutionary chain. Evolutionists also claim the presence of flight-type feathers on some dromaeosaurs represents their connection to flying birds. The fact that filamental feathers are still on flightless birds today has given rise to the idea that previously flight-capable birds lost their ability due to isolation, lack of predators, and other factors and therefore went

backward evolutionarily.<sup>1</sup> These changes to birds are not limited to feather structure but the whole anatomy of the bird.

### **Skeletal Features**

Flying birds have lightweight and hollow bones for better lift during flight, whereas ratites have solid and heavy bones. Two other skeletal features that differentiate ratites from flying birds are the absent keel and furcula, both of which are used for flight. The keel is the bone where the wing muscles for flying attach, and the furcula is a single bone clavicle that helps the bird withstand flight stresses. Dromaeosaurs are similar to ratites in the fact they do not have a flight-capable furcula or keel. The furcula in dromaeosaurs is similar to those in larger theropods such as allosaurus, which has never been linked to birds. According to evolutionary theory, ratites are considered by secular science to be the oldest living birds because they lost their flying ability over time. Secular science explains that evolution actually ran backward in the case of some flying birds and gave rise to birds like the ostrich and emu. Steven Czerkas and Sylvia Massey Czerkas make a note of this when discussing *Caudipteryx*, an ancient bird:

If *Caudipteryx* was a bird which had lost its ability to fly, this would explain why it had the kind of feathers that it did. It may have had a flying ancestor which had asymmetrical flight feathers. If so, then as seen by the wings of ostriches and other ratites, the flight feathers of *Caudipteryx* could have reverted back to being symmetrical and incapable of flight.<sup>2</sup>

The possibility that Czerkas and Czerkas did not address was that *caudipteryx* might have always been flightless, like the ostrich. This goes against the naturalist tendency to think that all birds could fly and then some lost the ability. The creationist can say flightless birds are a separate created kind from flying birds and therefore the need to explain backward and forward evolution is unnecessary.

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<sup>1</sup> Alison Fromme, "Why Fly? Flightless Bird Mystery Solved, Say Evolutionary Scientists," *National Geographic*, May 13, 2014, <https://news.nationalgeographic.com/news/2014/05/140513-flightless-birds-ostriches-moas-evolution-science/html>.

<sup>2</sup> Stephen Czerkas and Sylvia Massey Czerkas, *Feathered Dinosaurs* (Blanding, UT: Dinosaur Museum, 2008), 43.



## Secondarily Flightless Birds Theory

The secondarily flightless theory is only applicable to birds like the ostrich. This theory states that birds lose their flying capabilities over time due to factors such as environmental isolation, lack of predators, and other factors. Domesticated birds like chickens and turkeys still have anatomical features of flying birds, but typically do not fly. The skeleton and feather design allows for flight, but their lifestyle has promoted non-flight, so they do not typically fly. If a domestic chicken does fly, it is not a sustained flight like a robin or duck. Secular scientists posit two views on how flight originated in birds. The first theory is called “ground up,” which states that primarily ground-dwelling birds started jump gliding over time and this eventually led to powered flight. This is an oversimplification of the theory, but it serves its purpose to distinguish it from the other theory of flight, which is trees down. The concept of the trees down theory is that primarily arboreal birds jumped from branch to branch and developed gliding which led to actual flight. These two ideas are under considerable debate among paleontologists and ornithologists with neither theory being particularly dominant over the other.<sup>3</sup> The secondarily flightless theory is coupled with the idea that flight evolution in birds was from the ground up. Under the ground up and secondarily flightless theories, the previously flying birds, after losing their ability to fly, became ground dwellers again. The birds ended exactly where they started. The evolutionary thought here does not seem to add up. If all birds were flight-capable at one point, that would indicate they had the asymmetrical feathers on the wings, a furcula, keel, and hollow bones. Then, over time, they lost the interlocked, smooth feathers and gained the fluffy, downy type of feathers, lost key skeletal structures, and the bones became solid and heavy. When one observes changes in animals, as Darwin did with the finches, the changes to adapt are never that wide-ranging. Looking at crocodilians over time, the main difference between the modern and ancient involves size. Morphologically, they are nearly identical. In the case of ostriches, the naturalistic

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<sup>3</sup> E. N. Kurochkin and I. A. Bogdanovich, “On the Origin of Avian Flight: Compromise and System Approaches,” *Biology Bulletin* 35, no. 1 (2008): 1.

thought is that they evolved twice, once to flight capable, and then back to ground dwelling, anatomical changes and all. If dromaeosaurs are to be considered the precursors of modern birds, then they would have had to go through a similar and unlikely evolutionary process.

### **Beak Diversity and Genetics**

One of the present-day defining characteristics of birds is their beaks. The beak takes on a vast array of shapes and functions. Some beaks are designed for clacking noises, and others are for breaking open nuts, or for killing animals. Recently, in both genetics and paleontology, discoveries have been made that birds had teeth at one point and developed a beak later. Some fossils have been found, such as *Sapeornis* and *Limusaurus* that have both a beak and teeth.<sup>4</sup> Secular scientists construe this as evolution, but they are mistaken. It is a positive indicator that God created birds capable of having either beaks or teeth. Birds simply adapted as their needs changed. A substantial number of fossils shows that birds such as *Ichthyornis* did have teeth, as did *Microraptor*, but others such as *Confuciusornis* had a beak and no teeth. Geneticists found a gene called BMP4 that stimulates the growth of the beak while suppressing the formation of teeth. A study of the bird genome database and genetic experiments conducted in 2006 by the Universities of Manchester and Wisconsin demonstrated that the beak gene BMP4 could be deactivated and the bird would not grow a beak, growing teeth instead.<sup>5</sup> The fossil record shows that birds have the ability to have either, or, in some cases, both, of these features. Dan Nosowitz writes,

The development of the bird's beak and the loss of the bird's teeth appear, say the researchers, to have taken place at around the same time; there are early birds in the

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<sup>4</sup> Shuo Wang et al., "Heterochronic Truncation of Odontogenesis in Theropod Dinosaurs Provides Insight into the Macroevolution of Avian Beaks," *Proceeding of the National Academy of Sciences of the United States of America*, October 10, 2017, <http://www.pnas.org/content/114/41/10930.html>.

<sup>5</sup> Matthew P. Harris "The Development of Archosaurian First-Generation Teeth in a Chicken Mutant," *Current Biology* 16, no. 4 (February 2006): 371-77.

fossil record, like Ichthyornis, that have a partial beak in the front of the mouth and teeth in the back, an in-between development. Mark Springer of the University of California, Riverside says the researchers weren't able to pinpoint the loss of teeth.<sup>6</sup>

While science is at a loss to explain why the birds would be able to make either teeth or a beak, one only need look at God the creator and understand the grandness and adaptability of His creations. God knew that animals and plants would need to have versatility in their genetics to live in both the pre- and post-diluvian world. After the flood, the climate was different and land masses were greatly separated, so life forms adapted to deal with these changes. Creationists who agree with the Birds are Maniraptoran Theropods (BMT) hypothesis see this as evidence that the presence of teeth does not make the animal a dinosaur and further supports their hypothesis. Be that as it may, under this scenario, the simultaneous adaptations flying birds would have had to develop to lose their flight capability seems unlikely. What is more reasonable is that flightless birds are indeed birds but created distinct from both flying birds and dromaeosaurs and on separate days of the creation week. Flightless birds and dromaeosaurs were made on the sixth day, while their flying relatives were created on the fifth day.

### **Dromaeosaurs and Theropods**

Dromaeosaurs, according to secular science, are currently classed under the theropoda suborder which includes large animals such as spinosaurus, gigantosaurus, allosaurus, tyrannosaurus, and others. The fossil described in 2012 was of a tyrannosaur found in the Liaoning province of China. The paleontologists called the new animal yutyranus.<sup>7</sup> This animal measured approximately 24 feet in length as an adult and the fossil preserved its covering of filamentous feathers. These are not flight feathers but the

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<sup>6</sup> Dan Nosowitz, "How Birds Lost Their Teeth," *Audubon*, December 2014, <http://www.audubon.org/news/how-birds-lost-their-teeth>.

<sup>7</sup> Matthew A. McLain, Matt Petrone, and Matthew Speights, "Feathered Dinosaurs Reconsidered: New Insights from Baraminology and Ethnotaxonomy," in *Proceedings of the Eighth International Conference on Creationism*, ed. J. H. Whitmore (Pittsburgh: Creation Science Fellowship, 2018), 476.

more downy type one found in ratites. Because of the classification of yutyranus, there has been a tendency in paleontology to speculate that the larger relatives of the animal such as Tyrannosaurus Rex were feathered as well, despite fossil evidence to the contrary. Skin impression fossils have been found of T-Rex hide, which was scaly and pebbly, not feathery.<sup>8</sup> As mentioned previously, there is a tendency among paleontologists to assert the origin of birds from dinosaurs and make theoretical leaps not based in fact. None of the large animals, such as T-Rex, have ever been found with feather integument, and in most cases, there have been many examples of each species found. This includes the large tyrannosaurs variants like albertosaurus and tarbosaurus. This has been explained by stating the conditions for fossilization were not conducive to feather preservation. This account does not hold up to scrutiny because a large number of feathered animal fossils have been found under similar conditions. However, for their own reasons, many secular scientists have stated that T-Ex probably did have feathers because of the smaller relative yutyranus.<sup>9</sup> One of the problems with this is that yutyranus is a relative, not a tyrannosaurid per se.<sup>10</sup> A modern example to illustrate this difference is tigers. There are Siberian and Bengal tigers, and while the African lion is morphologically similar, it is a relative and not a tiger. The same is true for yutyranus.

The large theropods have a different skeletal structure from birds, both flightless and flying. They have very short arms in comparison to both ratites and dromaeosaurs. The furcula is present in these large animals as well, but the shape indicates a use other than flying. A. Feduccia and L. D. Martin explain,

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<sup>8</sup> Brigit Katz, "T. Rex Was Likely Covered in Scales, Not Feathers," *Smithsonian*, June 8, 2017, <https://www.smithsonianmag.com/smart-news/t-rex-skin-was-not-covered-feathers-study-says-180963603/.html>.

<sup>9</sup> Gemma Tarlach, "Just Say No to Feathered Tyrannosaurs," *Discover*, June 6, 2017, <http://blogs.discovermagazine.com/deadthings/2017/06/06/just-say-no-to-feathered-tyrannosaurs/#.W7qkQWhKhPY.html>.

<sup>10</sup> Tarlach, "Just Say No."

Also, the articulation of the arms of Velociraptor's furcula-like structure along the entire margin of the coracoid is unlike the articular relationship of the furcula in birds. However, it is similar to the relationship of the interclavicle bone to the coracoids found in primitive diapsids. This raises the possibility that the Velociraptor and theropod "furculae" are nonhomologous to that of birds.<sup>11</sup>

The smallest adult tyrannosaurid is much larger than any ratite or dromaeosaur.

Tyrannosaurus Rex might have had feathers; however, there is no evidence for it, only secular speculation with the motivation to link big theropods to bird evolution. It is the scientist's bias driving them to put feathers on T-Rex, not physical evidence.

While it seems odd to make such claims without physical evidence, sometimes such evidence is not the only factor in the production of these theories. This is not a sweeping condemnation of how scientists work, but an observation that could explain the reasons why some advance theories that seem to have no basis. The reasons are largely economic. Universities fund research and expect scientists to produce results. In many fields of study, roadblocks can crop up that divert or delay research and lead to a disruption of the contractual timelines. This pressure sometimes moves scientists to speculation rather than fact in order to sustain funding. They may well indeed want to present solid research, but due to pressures from funding committees, they may have no choice but to present something fanciful and intriguing to keep their work going. This situation is made worse when the theory gets widespread acceptance from the culture and becomes the approved truth.

### **Genetic Comparisons with Modern Animals**

Tyrannosaur soft tissue was found in fossilized bone and scientists were able to extract much of the DNA from it to compare to the other genetic material in the genome database. They found that the T-Rex sample most closely matched a chicken at 58 percent similar. To secular scientists, this was proof of bird evolution, and it was widely

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<sup>11</sup> Alan Feduccia and Larry D. Martin, "Theropod-Bird Link Reconsidered," *Nature* 391, no. 6669 (1998): 754.

disseminated through media outlets as scientific evidence.<sup>12</sup> However, this does not present the full story. The T-Rex genome may not have been complete, which would skew the numbers one way or the other, but that is immaterial in light of another genetic comparison. It is well known that mice are used to test new medicines and other experiments. The reason for this is that human beings share 99 percent of genetic material with mice, with 80 percent of the genes being identical.<sup>13</sup> Strictly going by the numbers, humanity's closest ancestor would be mice. This, of course, is incorrect even by evolutionary standards. Morphologically, the T-Rex is as far from chickens and humans as mice are from mice.

Nevertheless, this calls into question the credibility of the theory linking T-Rex with a chicken, or with birds in general. Certainly, all animals share genetic material because they all have a common creator, but to use this percentage of similarity to prove evolution demonstrates that science is not decisive; rather, a scientist's desire to fit data to their favored theory, no matter how incorrect, decides the matter. As stated, science gives great insight into God's creation when used to that end and not as a motivation to advance a flawed human theory of undirected natural processes. It is not the science that is flawed. Creationists and evolutionists agree in many, if not most, aspects of dinosaur biology. But assumptions, and thus conclusions, differ from person to person. This makes getting at the truth a difficult endeavor.

### **The BMT Hypothesis**

A recent theories that has gained acceptance in both secular and some creationist circles is the idea that birds are maniraptoran theropods.<sup>14</sup> Secularists are comfortable with

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<sup>12</sup> Stephanie Pappas, "Controversial T. Rex Soft Tissue Find Finally Explained," *Live Science*, November 2013, <https://www.livescience.com/41537-t-rex-soft-tissue.html>.

<sup>13</sup> Marsha Walton, "Mice, Men Share 99 Percent of Genes," *CNN Science & Space*, December 2004, <http://edition.cnn.com/2002/TECH/science/12/04/coolsc.coolsc.mousegenome>.

<sup>14</sup> Frances C. James and John A. Pourtless IV, "Cladistics and the Origin of Birds: A Review and Two New Analyses," *Ornithological Monographs* 66 (April 2009): 1.

the evolutionary idea that birds are the descendants of a certain clade of dinosaurs that were very bird-like. Creationists reject the evolutionary concept but agree that perhaps these animals that were thought to be dinosaurs are actually better seen as birds. To the creationist, all that needs to be modified for this theory to work is moving the animals to a different section of the cladistic charts, which does not require any acceptance of evolution of the animals. YECs, however, typically must reject this theory because of its fixed evolutionary base, which for them cannot be dismissed.

As was seen in the comparative anatomy of ratites, dromaeosaurs do tend to have many features similar to flightless birds. These similarities have led secular scientists to believe a relationship exists between birds and feathered dinosaurs. When feathered animals started coming forth in force in the fossil record, there needed to be an explanation as to why the animals that appeared to be dinosaurs had been fossilized with unmistakable feather integument. Many of the fossils came out of Liaoning China, where the conditions for preservation of feathers was better than other places, which led some scientists to start thinking that other animals, like the dromaeosaur velociraptor, may have had feathers. The anatomical similarities of a velociraptor and the newly found microraptor compelled scientists to speculate that since the microraptor had indisputable feathers, by extension perhaps velociraptor and other dromaeosaurs were feathered as well. The discovery of quill knobs on the forelimb of a velociraptor seemed to confirm this idea. Quill knobs are structures on the bones of birds where flight feathers anchor to give additional support for the stresses of flying. Scientists have never believed that the velociraptor was a flight-capable animal, but this implied feather evidence was enough to assert the growing theory that birds are the descendants of dinosaurs. The scientist's position is that velociraptor was related to birds of the flying variety and had retained the flight-capable structures but was now evolved to a flightless bird. From this flightless velociraptor and other similar animals is where secular scientists state birds originated from. This theory has the widest

acceptance in secular sciences and popular culture as well. However, there are a few problems with this evidence.

The quill knob structures found on the velociraptor that persuaded scientists to assert feather attachment was found only on one specimen. Other velociraptor forearms have not shown this feature. The presence of quill knobs does not conclusively prove the existence of feathers. A modern bird, the flamingo, does fly and does not have quill knobs on its arms. Another problem is the secular timeline. By this timeline, which YECs reject, the first birds found have been archaeopteryx and confuciusornis, which are 150 million years old and 125 million years old, respectively. Dromaeosaurs like velociraptor are dated to around 70 million years ago.<sup>15</sup> It is dromaeosaurs that secular scientists claim gave rise to modern birds, but this would require several evolutionary changes backward and forward. Dromaeosaurs are said to be descended from flying birds and became flightless. For dromaeosaurs to be the progenitors of modern birds, they would have had to re-evolve anatomical structures to make them flight-capable again. This does not seem reasonable, but for reasons of their own, secular scientists find no trouble accepting this theory and asserting its truth. Confuciusornis was virtually identical to modern flying birds both in skeletal anatomy and integument. It seems that this animal and ones like it are the more likely predecessor to modern birds. For creationists, this is a non-issue because flying birds were created on the fifth day and land animals on the sixth day. The origin of flightless birds, while not explicitly shown in the biblical account in Genesis, is thought to have been created on the sixth day with the other land animals or perhaps came later.<sup>16</sup> The flight status of archaeopteryx and its proper classification remains in question and will be discussed later in this work.

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<sup>15</sup> Feduccia and Martin, "Theropod-Bird Link Reconsidered," 754.

<sup>16</sup> Todd Charles Wood, Megan J. Murray, and Kurt P. Wise, *Understanding the Pattern of Life: Origins and Organization of the Species* (Nashville: Broadman & Holman, 2003), 36.



While this BMT hypothesis has the most recognition, some criticisms are leveled at it by secular scientists Alan Feduccia and Steven Czerkas. Feduccia is no friend of creationists, but many creationists have adopted his idea that dromaeosaurs are misclassified as a dinosaur and should actually be classed as birds. This theory is a very finely revised version of the BMT hypothesis where Feduccia and Czerkas claim that birds did not descend from dinosaurs, but certain animals thought to be dinosaurs are actually birds. As stated previously, this idea is easy for creationists to accept because it does not involve any sort of evolution like exists explicitly in the BMT hypothesis. Feduccia took issue with the idea that birds descended from highly derived animals like the dromaeosaurs and seems to prefer the notion that birds are related to dinosaurs only in the fact that both dinosaurs and birds descend from a lineage of animals known as archosaurs. The archosaurs also gave rise to crocodylians and pterosaurs, so all these animals are related in a way that is dissimilar to the BMT hypothesis.<sup>17</sup> Feduccia writes,

Examination of the literature fueling the consensus view of the origin of birds from already highly derived theropod dinosaurs reveals considerable deficiencies. . . . Once the consensus on the theropod origin of birds was reached and codified by cladistic analyses, the field took on a verificationist approach, attempting to prove pre-conceived notions about avian origins, flight, and feather genesis, and endothermy in dinosaurs.<sup>18</sup>

Feduccia called into question the BMT theory because the theory was not tested with enough thoroughness. The theory was declared sound and accepted and became unquestioned. A few paleontologists have responded to Feduccia's claims, however, and Thomas D. Carr questioned both Feduccia's methodology and conclusions:

The secondary argument, that the most bird-like dinosaurs are in fact true birds, is part of the author's strategy to accommodate the discoveries of dinosaurs with fossil feathers. He argues that the actual ancestry of birds is outside of dinosaurs, somewhere among non-dinosaurian archosaurs. However, without a testable phylogenetic analysis, his claim is just an assertion. The impression Feduccia gives is that he has a priori rejected the dinosaurian identity of birds without a substantive rationale. Although the book is intended for a wide public audience, those without

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<sup>17</sup> Alan Feduccia, *Riddle of the Feathered Dragons: Hidden Birds of China* (New Haven, CT: Yale University Press, 2012), 22.

<sup>18</sup> Feduccia, *Riddle of the Feathered Dragons*, 6.

training in systematic biology will be seriously misled by the misrepresentation of cladistics. In short, I do not recommend this book because it is a thoroughly inaccurate review of one of the most complete evolutionary transitions known from the fossil record.<sup>19</sup>

Carr's statements, after all, are not any stronger than Feduccia's though he claims they are. Carr is keeping with the majority view that Feduccia is arguing against, but neither has substantial evidence that one is more correct than the other. For Feduccia's assertion, there is no extant fossil record of archosaurs linking all these animals together under a common ancestor. The archosaur fossil of *Longisquama* is incomplete and does not offer conclusive evidence.<sup>20</sup>

Richard O. Prum also disagreed with Feduccia's findings. From the outset of his rebuttal, Prum made it clear that he believes birds are descended from theropod dinosaurs and that all the evidence points positively to this direction. He considers the theropod origin of bird to be uncontested fact. Like Carr, Prum finds fault in Feduccia's methodology. He began his dispute with questioning whether Feduccia's theory was scientifically derived. Prum argued that one way to verify a theory is to test the falsifiability of the claim. In this, he stated that there is no way to test Feduccia's claim of bird originating from archosaurs. However, in a previous paragraph on the same page, Prum acknowledges that these falsifiability tests cannot be conducted experimentally in evolutionary science.<sup>21</sup> This statement exposes one of the drawbacks to paleontology in general: the impossibility of natural observance. If a herpetologist wants to study a particular lizard, he can go to its habitat and observe and conduct behavioral or other types of experiments. The results of these tests can be repeated by others to bolster what

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<sup>19</sup> Thomas D. Carr, Review of *Riddle of the Feathered Dragons: Hidden Birds of China* by Alan Feduccia, *The Quarterly Review of Biology* 88, no. 1 (2013): 35.

<sup>20</sup> James and Pourtless, "Cladistics and the Origin of Birds," 8.

<sup>21</sup> Richard O. Prum and K. G. Smith, "Are Current Critiques of the Theropod Origin of Birds Science? Rebuttal to Feduccia (2002)," *The Auk* 120, no. 2 (2003): 550.

the scientist is attempting to prove. This is not possible in paleontology where the only thing to go by is ancient bones encased in rock.

Prum continued with his assessment of Feduccia by stating that all Feduccia is doing is denying the well-founded theropod origin of birds on the grounds of a cladistic conspiracy. Frances C. James and John A. Pourtless IV agree with Prum's critique of Feduccia, stating that the cladogram for the theropod origin of birds has bias built into it.<sup>22</sup> The starting assumption in the cladogram is that birds came from theropods, so it is natural that the results of the cladistic analysis would validate the theory.

The next contention Prum made was against Feduccia's "temporal paradox" idea.<sup>23</sup> In shortened terms, the earliest birds pre-date the theropods which are their supposed progenitors by millions of years. Prum stated that the temporal gap is not as large as Feduccia claims, suggesting it is only 25 million years and not 70 million. Prum's explanation was not convincing due to the fact that he did not resolve the paradox, only shortened the time, which still does not explain why there were birds before the theropods.

The last part of Prum's disagreement with Feduccia revolved around Feduccia's claim that the science of cladistics is inherently flawed and circular.<sup>24</sup> As discussed, it does seem there is truth to Feduccia's conspiracy. As mentioned by James, the cladogram's base assumption is the theropod origin of birds, therefore it could not prove otherwise. Prum disavows this idea and says that Feduccia is rejecting objective proof in favor of his own flawed theory of archosaur bird origins.

As mentioned, paleontology by its nature must involve a fair amount of informed conjecture for its theories. In the case of the theropod origin of birds, the evidence is skewed by biases of the scientists. In Feduccia's archosaur theory, the alleged archosaur

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<sup>22</sup> James and Pourtless, "Cladistics and the Origin of Birds," 1.

<sup>23</sup> Prum and Smith, "Current Critiques," 552.

<sup>24</sup> Prum and Smith, "Current Critiques," 552.

has yet to be discovered and is therefore only a theoretical animal that he says should exist in the archosaur lineage.

Creationists tend to accept Feduccia's theories because of the negation of evolutionary process, as mentioned previously, but also because, from a creationist view, Feduccia's idea can be tweaked to show that these animals (birds, dinosaurs, crocodiles, etc.) are all members of the created kinds in Genesis and are similar because of God, who made them similar. Creationists have to ignore Feduccia's full theory because it contains a belief in universal common descent. Even though he declared that birds did not evolve from dinosaurs, both animals share a common ancestor in differing archosaurs.

Czerkas and Czerkas make similar claims as Feduccia in that they contend that some birds have been misclassified as dinosaurs to support the dinosaur to bird relationship. They state that the feathers found on dromaeosaurs are being falsely used to indicate that these animals were on their way to becoming modern birds.<sup>25</sup> They feel that the discovery of a bird called scansoriopteryx, which predated archaeopteryx, shows a much deeper time for the origin of birds. Birds, he says, evolved from a different archosaur group than the dinosaurs. In discussing the feathered animal scansoriopteryx, Czerkas and Czerkas cite a major skeletal difference between birds and dinosaurs that prove that the two are unrelated. They stated that the differences in the hind limbs between dinosaurs and birds are the telling feature. The scansoriopteryx did not have the same upright limb alignment as dinosaurs; therefore, it could not have evolved from them. For Czerkas and Czerkas, this indicates that the posture of birds and dinosaurs developed separate from each other; therefore, dinosaurs and birds are from different progenitors.<sup>26</sup> Czerkas and Czerkas vary from Feduccia in that they provide further separation of birds and dinosaurs with the idea that while both animals originated with archosaurs, they came from different archosaur ancestors that were not related to each other.

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<sup>25</sup> Czerkas and Czerkas, *Feathered Dinosaurs*, 44.

<sup>26</sup> Czerkas and Czerkas, *Feathered Dinosaurs*, 32.

James and Pourtless offered an alternative to Feduccia in an Ornithological Monographs article about cladistics and the origin of birds. They agree with Feduccia in that the majority view has a built-in bias to their methodology; namely, the theropod origin of birds is a given fact.<sup>27</sup> Their research is an effort to show that the BMT hypothesis has not been thoroughly questioned for its validity. They write,

These results show that Theropoda as presently constituted may not be monophyletic and that the verificationist approach of the BMT literature may be producing misleading studies on the origin of birds. Further research should focus on whether some maniraptorans belong within Aves, and whether Aves belongs within Theropoda or is more closely related to another archosaurian taxon. At present, uncertainties about the hypothesis that birds are maniraptoran theropods are not receiving enough attention.<sup>28</sup>

James and Pourtless, like Feduccia, identified that one of the major problems is that the theory is not up for discussion and has been continuously repeated and reinforced in new books and research to the point of suggesting that birds and dinosaurs should be identified as the same animal in textbooks.<sup>29</sup> They feel that this is premature and that alternative theories need to be developed. One of the alternatives they offer is called the crocodylomorph hypothesis in which birds have an immediate ancestor within the crocodylomorphs but outside crocodylia.<sup>30</sup> Another theory offered is similar to Feduccia's in that birds are from the archosaur line and not theropods. The maniraptorans are considered birds and belong in Aves with no relation to theropods.

James and Pourtless' result concluded that the BMT hypothesis is not any more correct than the alternatives and they also offered the biggest problem with the BMT hypothesis is that the alternative theories are just as viable as the BMT theory. This discovery was the result of their cladistic analysis and found that the three tested theories—the BMT, the early-archosaur, and the crocodylomorph theory—were well in-line with

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<sup>27</sup> James and Pourtless, "Cladistics and the Origin of Birds," 1.

<sup>28</sup> James and Pourtless, "Cladistics and the Origin of Birds," 1.

<sup>29</sup> James and Pourtless, "Cladistics and the Origin of Birds," 3.

<sup>30</sup> James and Pourtless, "Cladistics and the Origin of Birds," 8.

the latest fossil specimens.<sup>31</sup> James and Pourtless' findings in all three alternative views put the maniraptorans, which include dromaeosaurs, outside of dinosauria and therefore extinguished the evolutionary concept that the BMT hypothesis had foisted upon science and the culture at large. Under their results, dromaeosaurs are not part of the dinosaur line and may be better classed with birds, similar to what Feduccia had suggested. Despite this, they are still not convinced of this answer:

Ostrom (1975, 1976a, b) and subsequent researchers like Gauthier (1986) were correct in noting the extensive similarities between maniraptorans and birds, a conclusion only strengthened by more recent discoveries, but evidence suggests that at least some maniraptorans belong within Aves. If Aves (inclusive of some maniraptorans) does not belong within Theropoda, at least some maniraptorans should be classified as birds rather than dinosaurs, and Aves should not be considered a lineage of living dinosaurs. On the basis of our results, the next two major challenges are to evaluate further the possibility that some maniraptorans in fact belong within Aves, rather than the reverse, and to further explore whether birds may have been derived from theropods, "early archosaurs," or crocodylomorphs, the three most likely candidates given current evidence. At present, the origin of birds is an open question.<sup>32</sup>

James, Pourtless, Czerkas, and especially Feduccia have been criticized about their finds and attempts to remove the dinosaur origin of birds. In Darren Naish's article describing the BAND movement, he primarily discusses the problems with Feduccia's work but also disparages James and Pourtless' work in the Ornithological monographs.<sup>33</sup> His objection is rather weak, just putting a negative tone on their finding that the BMT hypothesis is not any stronger than other theories. Naish concluded the article by restating the strength of the BMT hypothesis and denouncing BAND scientists and their findings as incorrect.

With the prior works by Feduccia, Czerkas, Pourtless, and James, birds have been removed from the dinosaur lineage, as they should be. Be that as it may, none of these theories are biblically sound for various reasons. To accept Feduccia's, as mentioned

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<sup>31</sup> James and Pourtless, "Cladistics and the Origin of Birds," 25.

<sup>32</sup> James and Pourtless, "Cladistics and the Origin of Birds," 38-39.

<sup>33</sup> Darren Naish, "The Birds Are Not Dinosaurs Movement," *Scientific American*, November 15, 2017, <https://blogs.scientificamerican.com/tetrapod-zoology/the-birds-are-not-dinosaurs-movement/html>.

before, one must jettison his implicit bias of universal common descent. The notion of evolution by universal common descent is the main creationist issue with all the secular theories. This is true for the theistic evolutionist as well even though they accept universal common descent because there is no God directing evolution in any of the secular models. For the YEC, the issue is more profound by reason of the uncompromisability of biblical truth and it is not fair game to contort a non-biblically based theory to make it palatable to those who believe in biblical inerrancy. The biblical inerrantist accepts the whole text of the Bible as true, even the parts that are uncomfortable for the Christian. One cannot pick out parts of the Bible that are agreeable and ignore the rest. So, like the secular theories of bird origins, one cannot keep some parts and reject the rest. It would be an appropriation and therefore unethical to both sides of the debate. It is fortunate that there are dedicated scientists who are YECs and have worked diligently to explain these animals without any compromise to the biblical accounts. The most recent baraminological research (2018) shows that dromaeosaurs should not be placed within Aves either, and are a separate animal group and one of the original created kinds in Genesis.<sup>34</sup>

### **Birds and Dromaeosaurs Are Not Related**

Despite the great number of similarities between non-flying birds and dromaeosaurs, they should not be considered related in the sense that evolution implies. McLain, Petrone, and Speights' recent baraminological study concluded that there are likely at least eight created kinds of feathered animals that are non-avian and unrelated to each other as well. This means that dromaeosaurs are not related to birds, nor are they closely related to other feathered animals like the tyrannosaurids.<sup>35</sup> McLain, Petrone, and Speights also found it difficult to classify the archaeopteryx through baraminological analysis. The archaeopteryx had long been considered the first bird and the proof of

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<sup>34</sup> McLain, Petrone, and Speights, "Feathered Dinosaurs Reconsidered," 472-515.

<sup>35</sup> McLain, Petrone, and Speights, "Feathered Dinosaurs Reconsidered," 504.

dinosaur to bird evolution. However, while McLain, Petrone, and Speights' study was inconclusive, they thought that archaeopteryx probably falls under the dromaeosaur taxon.<sup>36</sup> The archaeopteryx's ability to fly or if it only glided is also a matter of great inquiry, which is nested within the trees-down or ground-up debates. It is also possible that archaeopteryx represents a unique animal on the order of a platypus or red panda.<sup>37</sup> This baraminological finding of archaeopteryx changes the way this animal is typically considered by the creationist. It seems to reinforce the idea of the BMT hypothesis because it would group archaeopteryx with the dromaeosaurs and therefore lead to the conclusion that if archaeopteryx is a bird as traditionally believed, then these other dromaeosaurs should be considered birds as well. This pushes archaeopteryx into a relationship with dromaeosaurs that creationists have typically denied in the past. McLain, Petrone, and Speights' work does not significantly impact this thesis, as archaeopteryx could easily fit into dromaeosaur created kind, much like microraptor. Archaeopteryx's skeleton has always caused controversy because of having many dinosaurian features and yet a near equal amount of bird features. Recent studies have put archaeopteryx in a closer relationship with the dromaeosaurs than birds, but the debate is not settled.

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<sup>36</sup> McLain, Petrone, and Speights, "Feathered Dinosaurs Reconsidered," 504.

<sup>37</sup> The platypus and red panda are the only representatives of their families.



## CHAPTER 5

### CONCLUSIONS

Feathered dromaeosaurs and the other seven maniraptorans are unique created kinds. They represent a group of animals that are not birds but are not dinosaurs either. In the recent paper presented to the International Conference on Creationism, Matthew A. McLain, Matt Petrone, and Matthew Speights offered baraminological research results of feathered dromaeosaurs being a separate created kind, not related to birds or dinosaurs:

Our baraminological analyses reveal the presence of discontinuities between groups of feathered animals assumed to belong to separate created kinds, so it does not concede or imply evolution. It does imply that these groups cannot be clearly divided into either dinosaurs or birds, however. In fact, one of these groups may contain both a species traditionally called a bird (*Archaeopteryx*), and various species traditionally called dinosaurs (*Deinonychus*, *Velociraptor*, etc.), all of which are more similar to each other than to living birds or other dinosaurs. The biological reality—a spectrum of animals with varying features that would have been considered reptilian or avian a century ago—prevents both evolutionists and creationists from drawing clear semantic dividing lines between birds and dinosaurs.<sup>1</sup>

As reviewed in this thesis, there have been many attempts by secular scientists and creationists to figure out how to think about these animals. The standard secular model that birds descended from dinosaurs has been shown to be lacking because of its commitment to methodological naturalism and the science behind it is not as solid as it is often claimed to be. James and Pourtless' investigation found a built-in bias toward the theropod origin of birds, and also the hypothesis is on equal scientific grounds as two other competing theories. While James and Pourtless were able to extricate birds from the

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<sup>1</sup> Matthew A. McLain, Matt Petrone, and Matthew Speights, "Feathered Dinosaurs Reconsidered: New Insights from Baraminology and Ethnotaxonomy," in *Proceedings of the Eighth International Conference on Creationism*, ed. J. H. Whitmore (Pittsburgh: Creation Science Fellowship, 2018), 504.

theropod lineage, their work still cannot be accepted by YECs because of the implicit factors of evolution and universal common descent.

Alan Feduccia and Steven Czerkas also free birds from the dinosaur line but place them in a sister lineage, tracing back to an archosaur ancestor that was different than the archosaur that spawned dinosaurs. This is also not acceptable for the YEC because it is largely based on a theoretical animal that has not been found and the theory contains an evolutionary science bias. Czerkas suggestion that feathered dromaeosaurs are actually birds that have been misclassified does not work either. The anatomical differences between dromaeosaurs and ratites are too great, even though ratites are closer structurally than the flight-capable birds.

Despite these problems, there seems to be progress toward a biblically supported account of these animals. James and Pourtless, while still not biblically based, made an important step toward removing feathered dromaeosaurs from being the progenitors of birds and shook the establishment mantra of birds are dinosaurs. Secular science, without intending to, sometimes helps with biblical truth. The Big Bang Theory is an example. Though the theory is secular and without God, it still affirms creation of everything out of nothing, which is what God did in the biblical account. YECs take the Bible to be inerrant and truthful and therefore should not pick and choose what they believe and what they choose not to believe. Biblical truth should never be overlooked or modified by outside forces. Cultural and secular pressures should not have a say in interpreting the Word of God. This is done to maintain the purity of the gospel message. This is also why YECs should not adopt animal theories containing the element of evolution embedded within them. To be faithful to the biblical text, Christians should not conform Scripture to their needs, nor should they use only the parts they like in the secular theories and abandon the evolutionary roots. It is an all or nothing proposition when it comes to maintaining the purity of the gospel.

To date, the most biblically sound and reasonable theory about the feathered maniraptorans is the one McLain, Petrone, and Speights put forth in their paper. While some of the baraminological results were unexpected, they did not fall out of line with the biblical truth. It did make one rethink and consider God's creation in a different light than had previously been held. It does not represent a total rewrite of the understanding of creation; it represents a fine-tuning. McLain illustrates that God's initial creation was much more diverse than previously believed. It is a human tendency to box in things, and people have done this with God over the ages. They have tried to fit God into neat little categories, but He cannot be contained like that, and neither can His creation.<sup>2</sup> As new animal discoveries are made in the deep oceans, fossil beds, and remote jungles, it becomes clear that a multiplicity of creatures do not fit into tidy categories. The maniraptorans are an example of these creatures. As the study of these animals and baraminology continues to be refined and researched, there is no doubt that the glory of God's creative act will be shown in its true light.

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<sup>2</sup> This statement is not implying that God is so great that He cannot be understood at all. He has revealed Himself through Scripture and in the person of Jesus Christ, but the infinite power He possesses is not something finite beings can grasp. People over the centuries have tried to "bring down" God so they may understand His ways better, but He has revealed in Isa 55:8 that His ways are not our ways.

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## ABSTRACT

### THE REFUTATION OF BIRD EVOLUTION BY A STUDY OF FEATHERED DROMAEOSAURS AS A CREATED KIND

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Secular science seeks to use a group of feathered dinosaurs known as dromaeosaurs as proof of the evolution of birds. Species evolution is not true and feathered dromaeosaurs are misclassified as dinosaurs when they are in fact neither birds nor dinosaurs but a separate animal group as first created by God. This misclassified group of animals includes velociraptor, dromaeosaurus, microraptor, and others. Theropod dinosaurs include allosaurs, ceratosaurs, and other carnivorous dinosaurs; those animals are indeed dinosaurs. While some evidence suggests that members of the smaller tyrannosaurids bore feathers, the larger ones such as T-Rex and Albertasaurus have never been found with any integument. They have shared characteristics with the smaller dromaeosaurs but the differences are enough to warrant a separation of the groups. It is acceptable from a creationist standpoint for dromaeosaurs to have feathers and not be bird-related for God created a wide diversity of animals that share characteristics without being closely related to each other.

## VITA

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