CREATURES THAT DEFY SECULAR EVOLUTION

April, 2019

Perry Atkinson and John Mittendorf

INTRODUCTION

In 1859, the revolutionary book *On The Origin of Species By Means of Natural Selection* by Charles Darwin was published and is still considered to be the foundation of evolutionary biology. The book introduced the theory that populations of life evolve over the course of generations through a process called natural selection that is supposed to result in a diversity of life arising from the common descent of simplicity through an upward branching pattern of complex life forms.

According to the theory of evolution, every upward move from a single cell has been caused by *gradually accumulating small changes* that have come about through errors in copying DNA that directs the construction of life. These copying errors (called mutations) are theorized by secular scientists to have permitted life to assemble by accident with no intelligent direction from God. Evolutionary theory proposes that over millions of years, natural selection has selected the organisms with beneficial mutations to live while organisms with harmful mutations must die. Yet, imbedded in evolutionary theory is the ideology that any system without a beneficial function will be eliminated by natural selection. However, today we know that for any given process, part, or function, any single system that is composed of several well-matched, interacting parts that contribute to a basic function, needs to have all of those parts present

and operational to be an acceptably functioning system (currently known as irreducible complexity). Remember that Darwin is also famous for the following quote:

> *"If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down"*
> *Charles Darwin, Origin of Species, 6th ed.*

With Darwin's quote in mind, let's continue by looking at four common creatures that question Darwin's quote and also underscore undeniable design by the Creator.

UNDENIABLE DESIGN BY THE CREATOR

BOMBARDIER BEETLE

For an insect that is only about ½ to 1-inch long, the bombardier beetle incorporates enough technology to defy an accidental beginning through evolutionary methodology. When being attacked by a predator, the beetle can defend itself by firing streams of burning gas at the predator. The emissions fire in rapid succession, up to 500 times per second with audible detonations, and the counter attack is complete before one second passes which typically results in the attacker leaving with a mouthful of noxious gases or losing its life, and is why this beetle is often referred to as the *"Arsenal Insect."*

Figure 1. A Bombardier Beetle

The streams of burning gas originate from turret-like twin spray nozzles under its abdomen that can be maneuvered and aimed in nearly all directions to achieve remarkable accuracy towards a predator. The irritant chemicals are

formed just prior to being ejected from two separate glands that are separated from one another, and each gland is further compartmentalized. One gland contains *hydrogen peroxide* and *hydroquinone* while the other gland contains a mixture of enzymes composed of *catalases* and *peroxidases* that can react with hydrogen peroxide to form oxygen and water. When the beetle contracts its sphincter muscle, the hydrogen peroxide and hydroquinone mix with the catalases and peroxidases. The resultant violent chemical reaction brings the temperature of the reaction up to the boiling point of water. At this point, a one-way valve in the beetle closes to protect the beetle's internal organs and the pressure of the reaction expels a mixture of gas and steam at 212-degrees F![1] This system is so complex and effective that scientists have examined its design and have built a similar nozzle mechanism to improve fuel, medical, and agricultural technology.

However, and most importantly in keeping with the focus of this discussion, how could the chemicals and discharge apparatus have evolved, since all of the specific ingredients and mechanisms would need to be present at once to work properly and/or to keep the beetle from self-destructing. From an evolutionary viewpoint, functionless parts and chemicals would have been selected against, since they would have added no survival value until all required components were in place and operational.

GIRAFFE

Of all the animals that can be found on the African savanna, the giraffe qualifies as one of its most unique animals with its long stilt-like legs and a neck that towers high into the sky (Figure 2). It is a mixture of these traits that combine to

Figure 2. The Giraffe

make the giraffe the tallest land animal in the world with male bull giraffes towering to about 18-feet. However, what visually sets the giraffe apart from other common animals is its long neck that is used for foraging for leaves in the top portion of acacia trees, communication with other giraffes, showing submission and aggression, and fighting for dominance.

Not surprisingly, it is the giraffe's anatomy that presents a major challenge to evolution. To eat food or drink water on the ground, a giraffe must

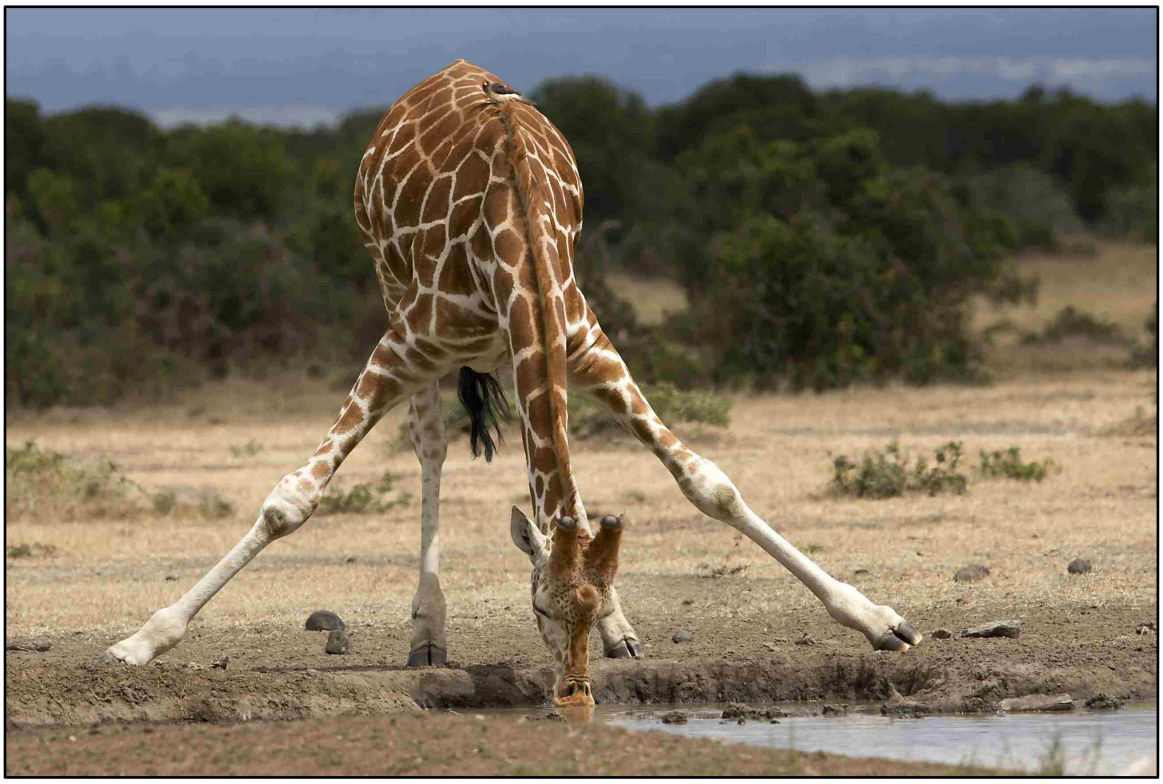

Figure 3. Giraffe Drinking Water

first splay it's front leg's and lower its head to a point up to 6 to 7-feet below its 2.5-foot long, 25-pound heart, and when upright, to a point up to about 10-feet above its heart. Normally, these two conditions would cause a sudden rush of blood to and from a giraffe's delicate brain, a severe problem that could cause death from the brain rupturing from excessive blood pressure.

To solve this problem, the 6-foot long neck requires an intricate blood vessel system to maintain proper blood pressure between the heart and brain, regardless of positioning. To alleviate this problem, the blood vessels are uniquely designed with reinforced walls, bypass valves, a cushioning web, sensor signals to moderate the blood pressure when the neck bends downward, and as further protection, a mass of spongy tissue below the brain helps regulate

the blood flow to the brain so that rapid changes can be dampened.[2] As a side note, the skin on the legs of giraffe's is tight enough to prevent high blood pressure from forcing blood out of the capillaries.

From an evolutionary perspective, one must speculate how many giraffe's fatally damaged their brains when bending down and/or passed out as they lifted their heads, becoming food for predators – until the aforementioned special features somehow evolved? It should be obvious that the first giraffe's had to be initially equipped with these special features as evolutionary theory cannot account for the slow implementation of these unique characteristics. However, God's handiwork can account for the initial implementation of these features.

WOODPECKER

Recently, concussions have become front-page news in the world of contact sports, especially among many football leagues, both youth and professional. In addition to potentially damaging brain cells and disrupting the brain's chemistry, repeated concussions have the capability to lead to a condition known as chronic encephalopathy, or CTE, a degenerative disease that can result in dementia. In humans, the brain is encased in a thick skull of bone and is also surrounded by a layer of cerebrospinal fluid.[3] However, a hard/sudden collision is capable of overpowering these safety features and cause the brain to collide against the inside of the skull.

Figure 4. Pileated Woodpecker

Interestingly, a common bird that most people are familiar with is able to repeatedly pound its head and beaks into a tree numerous times per second while on the search for bugs or creating a hole for a nest. At each impact, the sudden deceleration can produce a force that is many times the bird's total body weight and would be fatal to a human being, yet the woodpecker (Figure 4) thrives in this environment. The woodpecker's ability to continue to live under these challenging conditions is a classic example of an intelligent design that dictates woodpeckers were initially created with specific features fully intact and operational that also frustrates evolutionary theory that is based in slow and gradual changes.

Multiple designs are collectively instrumental in protecting the woodpecker brain as illustrated in Figure 5 as follows:

- The brain cavity is compact which gives the brain less room to move around and is also broad at the front while tapering in size towards the back of the head. This tapered design spreads impacts over the greatest possible area

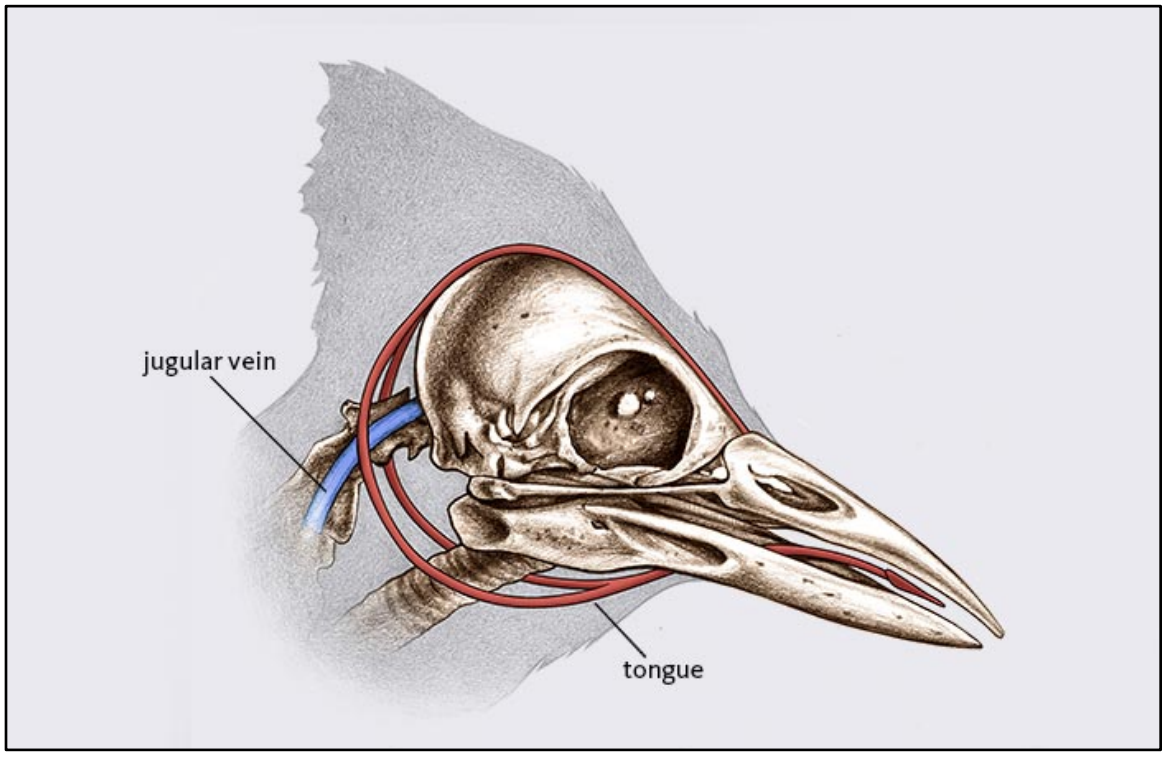

Figure 5. Woodpecker Head Anatomy

- The upper and lower beaks are different in length and density. The softer and longer top beak changes shape on impact just before the stronger lower beak hits the target. This staggered hit redirects the force of the collision downward and away from the woodpecker's brain. It is estimated that this

beak combination transfers over 99% of impact forces to the body of the bird and away from its brain

- The tongue is an integral part of the woodpecker's arsenal against brain trauma (refer to Figure 5) and has multiple unique features. The tongue begins by being anchored (root) at the topmost portion of the junction of the upper beak and front portion of the skull. However, the tongue then travels *backwards,* circling around and behind the head and neck where it splits into two branches which travel around both sides of its jugular vein in its neck while traveling forward and coming back together before entering into the lower beak on the front portion of the skull. Essentially, the tongue starts as a single tongue, divides into two tongues, and then unites back into a single tongue into the beaks. Although this may seem somewhat complicated, this combination of one-into-two-into-one serves two purposes:
    - During striking a tree, the split tongue applies pressure on the jugular vein, briefly increasing the cushion of blood stored between the brain and skull as the extra fluid acts as an additional cushioning agent for the brain and also helps to hold the brain in place[4]
    - Circling around behind the head and neck under the loose skin gives the tongue sufficient length so it can be extended about 6-inches beyond the beaks to snare appropriate bugs for food. This design is also believed to result in improved accuracy as the woodpecker guides its tongue towards a target[5]

From a simplistic viewpoint, it should not be surprising that a woodpecker's tongue must have been initially present in its totality and a product of an intelligent and complex design. If the woodpecker's tongue were a result of a slow and lengthy evolutionary process, the woodpecker would have starved to death or fatally damaged its brain until all of the aforementioned parts were correctly assembled and fully operational.

HUMMINGBIRD

Out of all the different kinds of bird species, the common hummingbird is likely the most familiar bird to most people as its colorful acrobatics are unique in the aviary world as no other creature (sea, land or air) can match their ability to instantly stop, hover, somersault, fly backwards, fly upside down, move side to side and travel across the Caribbean Ocean on a half-ounce of fuel. This unique combination of unified skills is a result of a remarkable combination of a precise and complicated design of interrelated systems that makes hummingbirds special while making the difficult to impossible look ordinary. It also underscores the fact that a hummingbird's numerous capabilities could not have

possibly arisen piecemeal by trial and error that presents a significant challenge to evolutionary theory of long time periods incorporated with small changes.

Most people are aware that hummingbirds perform a rare role among birds – pollinating flowers (Figure 6). This requires hovering (and other amazing flight maneuvers) while feeding as no other bird lives and operates in

Figure 6. Broad-Tailed Hummingbird

this manner as other birds typically catch their food and then perch to eat. So, lets consider the many traits that make the hummingbird unique in the aviary world:[6,7]

Migratory

Hummingbirds can migrate long distances, depending on the species of hummingbird. As an example, Rufous hummingbird's migrate about 4,000 miles from their wintering grounds in Mexico to their nesting grounds in Alaska or Canada. During migration, they can average 30 mph and consume as much as one-half their body weight in fuel per day. Interestingly, evolution cannot explain how birds developed navigational skills to travel long distances each year. As an example, the Sooty Shearwaters bird travels an astounding 40,000 miles each year migrating between the Falkland Island Islands and Artic waters and back.[8] Evolution still cannot explain the slow development of bird migration by slow trials over long distances of water.

Sleep

Hummingbirds are one of the few birds that are known to be able to go into a very deep sleep that slows metabolic functions to a minimum along with a low body temperature to conserve energy. This condition is called *torpor*[9] and allows them to maintain their normal 105-degrees F. body temperature when weather conditions will not allow them maintain their correct body temperature.

Physiology

A hummingbird's heart can beat up to 225 times per minute at rest but can increase to over 1,200 beats per minute when flying. In flight, their wings can beat about 70 times per second and over 200 times per second while diving. These capabilities can consume an incredible amount of calories per day. If a human consumed the same amount of calories per day to equal the intake of a typical hummingbird, we would typically need to ingest almost 155,000 calories per day that is 77 times more than humans ingest. The secret to their high-octane fuel needs is the nectar that tube-shaped flowers produce just for this occasion. The inherent sugar in the nectar is quickly converted to flight energy with 97% efficiency. As the need for a high caloric intake is monumental, hummingbirds feed on this nectar five to eight times per hour!

Flight

Hummingbird's can typically fly about 30 to 45 mph. However, some species can fly up to 93 mph during short chases. Although this is an impressive feat, it is their acrobatic maneuvers that defy evolutionary attempts to explain the slow emergence of their flight capabilities. As previously mentioned, the hummingbird is the only creature that can instantly stop, fly forwards, backwards, sideways and upside down, tumble, and hover! So how are these acrobatics accomplished with apparent ease? Let's summarize the wing and muscle structure that is *only* found on hummingbird's:

- Most birds fly with an up-and-down motion of the wings. By contrast, hummingbird's can use three basic types of wing movement: (1) up-and-down to move forward, (2) a spinning overhead motion to move backwards, and (3) a figure-eight motion to hover
- Most bird wings bend in the middle, but hummingbird wings are rigid. A unique shoulder joint allows the bird to pivot/rotate their entire wings 180-degrees for capabilities that other birds don't have. As an example, to fly backwards, the wings are rotated so that each stroke is over the bird's head. A hummingbird can fly backward as fast as it does forward and without using extra energy
- Hovering is accomplished by rotating the wings in a figure-eight pattern, resulting in both the forward and backwards strokes pushing downward. Other birds can only produce thrust in a downward motion of the wings but

hummingbird's can pivot their entire wings at the shoulder, producing thrust on the upstroke *and* downstroke. This is accomplished by a unique ball-and-socket joint in the shoulder that allows the wings to be instantly rotated in either direction, up to 180-degrees. Additionally, the pivoting wings allow the bird to remain stable without bouncing up and down while hovering

- Not surprisingly, the complex flapping and rotating of the wings can create complex vortices in the air, but a hummingbird is able to use the vortices to increase lift instead of moving the wings faster and/or harder
- Powerful chest muscles comprise 25-30% of their body weight, more than any other bird. However, their feet and legs are so small that they cannot walk but can only hop sideways or perch. The diminutive size of their feet and legs is advantageous in minimizing drag during flight

CONCLUSION

Although there are numerous other creatures that defy evolution, the preceding four creatures summarize the concept that these creatures (as well as many others) had to be created the way they were, or they would have never existed as no creature has ever been discovered that has a partial lung, a partial brain, or other similar consideration. If the entire system, such as a circulatory system or a blood clotting system is not there in it's entirety, the creature would not survive as it has to be there all at once or the creature would not exist.

When applied to mankind and faith in Jesus Christ for eternal salvation, scripture reminds us that:

"I tell you, do not be anxious about your life, what you will eat or what you will drink,… Look at the birds of the air: they neither sow nor reap nor gather into barns, and yet your heavenly Father feeds them. Are you not of more value than they?"
Matthew 6:25-26

RESOURCES

1. www.mcgill.ca/oss/article/bombardier-beetle
2. www.semanticscholar.org…/the-giraffe…neck
   Dr. Jerry Bergman
3. answersingenesis.org/birds/birdbrained-breakthrough
4. Ibid.
5. www.creationism.org/heinze/woodpecker
6. www.aig.org/birds/hummingbirds-avian-acrobats
7. www.nationalzoo.si.edu/migratory-birds/hummingbirds
8. www.treehugger.com
9. www.britannica.com/science/topor