

GOD'S GECKO GLUE

Presented by

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Have you ever heard of an animal known as a gecko? This lizard-like animal has the ability to climb literally anywhere it wants. Scientists often refer to the gecko as “one of the world’s greatest reptile climbers.” In fact, for over 2,000 years the gecko has been the subject of human curiosity. Records of these amazing creatures can be found even before Christ came to the Earth. The gecko’s incredible ability to cling to and climb on things has become its trademark. But what makes the gecko such an amazing climber and climber? How does it do what it does?

The gecko is a quadruped, which is a fancy way of saying that it walks on all fours. This means that everything the gecko needs to climb on things must reside in its tiny feet. Fortunately, the gecko’s foot is a masterpiece of intricate design. The gecko has what are called “omnidirectional” toes, which means that they can turn in every possible direction. The gecko’s toes are divided into small sections known as **lamellae**, which are composed of overlapping lobe-like layers. On each lamella, there is a multitude of tiny, hair-like structures known as **setae**, which give the gecko’s foot its extremely delicate texture. Scientists have used microscopes to determine that each of the gecko’s feet has almost **500,000** setae. And each one of the setae is just one-tenth the thickness of a human hair! In fact, there are about 5,000 setae per square millimeter of a gecko’s skin—which is a **lot** of hair-like objects in a **very small** space!

When scientists used a powerful electron microscope to examine the gecko’s feet, they saw that attached to the end of each one of the small, hair-like setae were hundreds of tiny projections that formed spatula-shaped structures known as “spatulae.” All of these intricate structures—the lamellae, the setae, and the spatulae—work together to allow the gecko to move up, down, left, or right with incredible speed and agility.

As the gecko moves, it seems to practically defy gravity. But how does it do that? Scientists once thought that the gecko produced some sort of secretion that it could use like glue. But that turned out to be wrong. Scientists then thought that perhaps the gecko had some type of suction cups on its feet—like those on the arms of an octopus. But that also turned out to be wrong. Scientists then dreamed up the idea that the gecko produced some sort of electrostatic attraction between its feet and the surface on which it was climbing—sort of like the “static cling” that causes clothes to stick together when they come out of the clothes dryer. But this, too, turned out to be wrong. Scientists were completely stumped as to how the gecko did what it did—and how it did it so well.

Eventually, however, researchers finally discovered the hidden secret of the gecko’s foot. As it turns out, the gecko can climb on practically any surface because of microscopic intermolecular relationships known as **van der Waals forces**.

Johannes Diderik van der Waals was a Dutch scientist who lived in the late nineteenth and early twentieth centuries. His work was devoted to documenting the relationships that existed between the pressure, volume, and temperature of liquids and gases. During his studies, Dr. van der Waals learned that there are forces present between individual molecules that are close to each other, and that each molecule is attracted to other nearby molecules. These intermolecular forces—which came to be known as **van der Waals forces**—do not have much of an effect at large distances because they are overpowered by other more powerful forces like gravity and electromagnetism. However, at very short molecular distances, these forces are extremely strong. The gecko’s ability to climb is proof of that. Let me explain.

A gecko can “stick” to practically any surface by using the van der Waals forces that it generates between the tiny spatulae on its feet and the surface on which it is climbing. These intermolecular forces are so strong at such short distances that they make it possible for a gecko to cling to **any** surface, **even using just a single toe on one of its feet!** In other words, the specific structure, the enormous quantity, and the elaborate design of the spatulae and setae on a gecko’s foot allow it to produce enough of the van der Waal’s forces to go wherever it wants, anytime it wants!

Once scientists finally figured out how the gecko’s foot worked, they started trying to produce man-made materials that could imitate the way the gecko uses van der Waals forces to make things attract one another. The scientists’ goal was to produce a type of “gecko glue”—something that would allow things to stick together, yet without actually using any glue as an adhesive agent.

However, much to the scientists’ surprise, they learned that the gecko’s ability to generate and deploy the complicated van der Waals forces could not be easily duplicated. As experiment after experiment failed, the scientists were forced to admit that the little gecko demonstrates powerful principles of design—principles that are so complex that scientists have not yet been able to successfully duplicate them. It is interesting that during all of this high-powered research, one scientist who did not believe in God boasted that geckos “**have evolved one of the most versatile and effective adhesives known.**”

Wait a minute! Evolution cannot “design” anything. And it certainly cannot account for the complex design that is evident in the gecko’s foot. As everyone knows, design demands a designer. When we see a watch, we know that there had to have been a watchmaker. Or, when we see a bush shaped in the form of Mickey Mouse (like we see at Disney World in Florida), we know that there had to have been a gardener who created the design in the bush. It is obvious that the gecko did not “evolve” its amazing design. Instead, God, Who is the Great Designer, created the gecko with the ability to use van der Waals forces so that it could climb wherever it needed to go. Do not overlook the fact that the tiny gecko has been able to do something that the world’s most intelligent scientists have not been able to do. If these scientists—with all of their combined knowledge, wisdom, and technology—cannot design gecko glue, why should they expect us to believe that the gecko’s amazing ability to do so “just happened by accident” in nature?

Isn't it sad that some people have traded their faith in God for the errors of evolution? This is nothing new. The apostle Paul said that some of the people of his generation had "exchanged the truth of God for a lie, and worshipped and served the creature rather than the Creator" (Romans 1:25). Wouldn't it be better to listen to the inspired wisdom of the psalmist when he wrote, "Praise the name of Jehovah, for He commanded, and they were created" (Psalm 148:5)?

The theory of evolution has absolutely no place for God, the Great Designer. And that is why evolution is wrong. When we see evidence of design like that in the amazing gecko, we know that such design demands a designer. **God** is that Designer. The writer of the book of Hebrews said, "Every house is built by someone, but He who built all things is God" (Hebrews 3:4). From the gigantic macrocosm that we call the Universe, to the microscopic lamellae, setae, and spatulae on a little gecko's foot, the evidence of God is all around us. As the psalmist said, "Praise the name of the Lord, for His glory is above the earth and the heavens" (Psalm 148:13). Yes, it certainly is. Who would have guessed that a tiny little gecko could teach us such important lessons about our great God?