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WONDROUS WOODPECKERS

ERIC LYONS

Incredibly, woodpeckers can strike a hard surface 20 times per second and several thousand times a day without ever getting hurt. How forceful are woodpeckers' strikes? According to researchers, they are "equivalent to **1,000 times** the force of gravity," or "**more than 250 times** the force to which an astronaut is subjected in a rocket during liftoff."

So powerful are woodpeckers' strikes that some scientists believe that they close their eyes in between each peck—not to keep chips of wood from getting in their eyes—but to keep their eyeballs from popping out of their sockets as they strike the tree with such tremendous force.

How can woodpeckers survive such a head banging? How do their craniums not crack and brains not burst? First, woodpeckers have very strong, extra thick skulls, which can take a pounding without cracking. Second, and perhaps more important,

woodpeckers have special shock absorbers that are better than anything man has ever made—better than the best car bumper, and better than any shock-absorbing football helmet. In the perfect place (right in-between the bird's beak and skull),



HAVE YOU EVER HAD A HEAD INJURY? PERHAPS YOU HAVE BUMPED HEADS WITH SOMEONE

and developed a knot on your forehead. Maybe you have tripped over a curb, hit your head on the pavement, and suffered a concussion (brain injury). I once saw a boy run full-speed into a large tree, accidentally striking it with his head. Talk about a painful experience! Though the human body is perfectly designed for God's purposes in creating it, God did not create humans in the same way that He designed woodpeckers. If a human were to strike a tree with the force and regularity that a woodpecker knocks against it, he would soon die. Woodpeckers, however, keep on keeping on.

Arctic Woodpeckers drill into trees for at least three reasons: (1) to find insects to eat; (2) to carve out a hole in which to live; and (3) to communicate with other woodpeckers.



The woodpecker's beak is so strong it can remain perfectly straight and functional for more than 10 years and through more than 10 million pecks against a tree. It never has to be replaced or sharpened.

God created the perfect sponge-like tissue to absorb the perpetual pounding that this bird puts itself through on a daily basis.

Once woodpeckers carve a hole into a tree, how do they get to the insects that may still be four or five inches away? If their tongues were short like most birds, much of the pecking woodpeckers do would be rather useless, because they would not be able to reach the insects. But God knew what woodpeckers needed. He gave them elongated tongues, which they can roll up and store deep in their skulls when not extended. Some woodpeckers have tongues that are five inches long (or three times the length of their beaks). What's more, their tongues are specially designed with rear-facing barbs and a sticky substance that help draw insects out of the tree and back to the woodpeckers.



Unlike most birds, woodpeckers have two toes that point forward and two toes that point backward. This perfect design helps keep woodpeckers secure against trees as they drill their holes.



IF EVOLUTION IS TRUE...

1. Why did woodpeckers ever start banging their beaks on trees for food when they could simply gather food on the ground like most other birds?
2. How did the first woodpecker not kill itself the first time it began beating its beak against a tree?
3. How did the first woodpecker know to close its eyes every time it struck a tree?
4. When did the woodpecker get the special, shock-absorbing cushion between its beak and skull?
5. If this special cushion took millions of years to evolve, what did woodpeckers do in the meantime?
6. From where did woodpeckers get their sticky, barbed, elongated tongues that are perfectly designed for woodpeckers to stick into trees?
7. Why is the tongue of woodpeckers so different from ordinary birds?
8. How did woodpeckers know that they could generate more force per peck if they had stiff tail feathers as well as two toes in the front and two toes in the back to anchor their positions to trees?
9. Who taught woodpeckers that they could chisel trees in search of food?
10. Who taught them to communicate with each other by banging their bills against trees?
11. Who taught them to drill holes into trees for shelter?
12. Why are other birds not evolving these amazing abilities, like the woodpecker supposedly did?

The fact is, the idea that the wondrous woodpecker could evolve is absurd. This amazing bird did not have to knock itself silly for millions of years in hopes of one day getting everything it needed to do what it does. On day five of Creation (Genesis 1:20-23), Almighty God specially designed the woodpecker with a strong bill, a thick skull, a long tongue, and the best shock absorber in the world.



Superbly DeSigned Snakes

ERIC LYONS

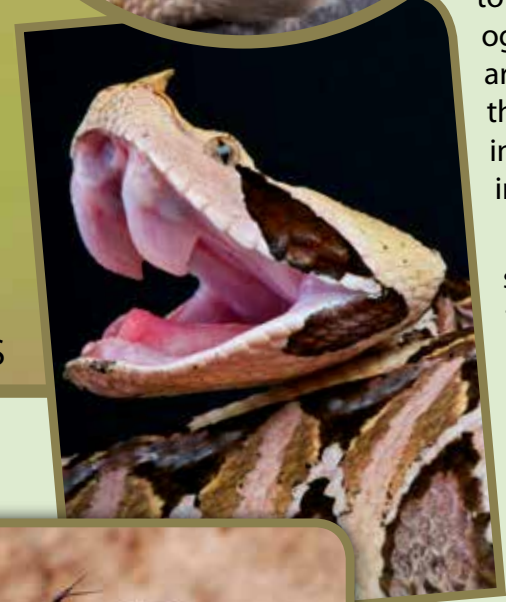


(the largest snakes in the world), are excellent swimmers. Other snakes, like flying tree snakes, can effectively jump and glide from one tree to another or from the tree to the ground. The movement of snakes is a marvelous thing to witness. They clearly have been designed with a powerful, complex muscular system, which is perfectly attached to hundreds of bones—all of which allow snakes to bend, curl, twist, and turn in all sorts of ways and on all kinds of terrain.

Sensational Sensors

Have you ever seen a night vision camera with specially designed sensors that are built to detect heat? Soldiers often use this technology (called infrared) when they need to move around in the dark while keeping a close eye on the enemy. What these soldiers actually see with infrared equipment is the heat of various objects, including humans and animals.

Amazingly, some snakes have built-in, heat-sensitive pits that are located on the top of their mouths, just below their nostrils. With these, snakes are able to sense the presence of both prey and predators. These pits are not merely empty holes in their heads. They are actually complex organs packed with nerve endings that snakes use to accurately detect the direction and distance of other animals. Question: If no one would ever claim that infrared cameras are the result of the non-intelligent, random processes of evolution, why would anyone say that the superb heat sensors of snakes are merely the product of evolution?



SNAKES HAVE FORKED TONGUES. A FORKED TONGUE ALLOWS THEM TO SENSE FROM WHICH DIRECTION A SMELL IS COMING.

WHEN MOST PEOPLE HEAR THE WORD "SNAKE," THEY QUICKLY BECOME UNNERVED. SNAKES' WAGGLING, FORKED TONGUE, BEADY EYES, AND SLITHERING BODIES GENERALLY disturb people. And although most snakes are not venomous, the fact that some of them are leads many people to avoid them all together. The truth is, however, snakes are superb examples of design in the animal kingdom.

MasterFUL Movements

Evolutionists claim that snakes evolved from lizard-like ancestors that lost their legs over the course of millions of years. However, no real proof exists for this far-fetched theory. The fact is, snakes, with their long, skinny, **legless** bodies, are perfectly designed to move efficiently on all sorts of surfaces. They can climb **up** trees, **in** trees, and **down** trees. They can slither underground or aboveground and over hard rock or loose sand. Some snakes, such as anacondas



Did YOU KNOW?

Some snakes have fangs from which they inject a poison called venom. Venomous snakes, such as the King Cobra, produce the poison in small sacs behind their eyes.



When these snakes bite their prey, venom is released through their hollow teeth. This action is similar to the way a doctor uses a needle to inject medicine into a patient.

If no one thinks that a doctor's needle is the product of evolution, why would anyone think that evolution could explain a snake's "natural needles"? God designed both their fangs and their venom production abilities.



RATTLESNAKES MAY BE BEST KNOWN FOR THEIR RATTLES, BUT THEY ALSO HAVE AMAZING HEAT-SENSITIVE PITS. GOD GAVE THESE SNAKES SUCH WELL-DESIGNED, INFRARED SENSORS THAT THEY CAN DETECT CHANGES IN TEMPERATURE AS LITTLE AS 1/1000TH OF A DEGREE.

SNAKES USE THEIR VENOM TO PARALYZE OR KILL THEIR PREY. MAN HAS DISCOVERED VARIOUS USES FOR SNAKE VENOM, INCLUDING USING IT IN CERTAIN MEDICINES AND MEDICAL RESEARCH.



Superbly Designed Snakes are ALSO KNOWN For their...



EXCELLENT ELASTIC

Plastic Man, Mr. Fantastic, and all other stretchy superheroes are the inventions of creative imaginations. Snakes, on the other hand, are the **real** deal when it comes to elasticity.

It is difficult for humans to swallow anything much bigger than a quarter, yet some snakes (like African Rock Pythons) can stretch their jaws and swallow prey as big as a 130-pound deer—horns, hooves, and all. How can a snake swallow prey so much bigger than its own head? If left up to evolution, one would think that the first time a snake tried consuming such a large animal he would choke to death. The truth is, God designed snakes with very stretchy ligaments that allow them to separate their jaws and open their mouths extremely wide.

"God made...everything that creeps on the ground" (Genesis 1:25).

A snake's scales, sensors, fangs, elastic ligaments, and versatile movements testify to something greater than "millions of years of evolution." These wonders of design demand a Designer; they declare His glory.



ACTIVITY PAGES



T O E S S S U P F O B N
P L O E Y U N X W Y T V
L Y C G S T S A Z G B T
X T X P V L B V K A S O
O V L Z R U W Y C E M N
S X M G X J E Y Q F S G
T U E I N F R A R E D U
X U E C E O C N S T A E
U L X S J B M B F G E H
I W O O D P E C K E R S
K M S N C J W P I T S X
X S X C Q V X D W L B L

SOLVE, FIND, AND CIRCLE

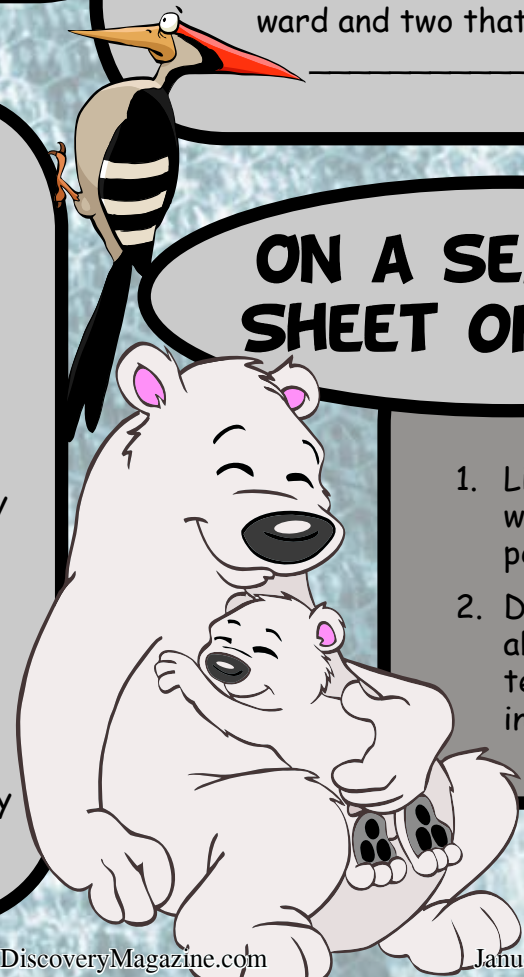
1. Polar bears retain their heat so well that this type of heat-sensing camera has a hard time detecting the bears. _____
2. Animals that can bend, curl, twist, and turn in all sorts of ways and on all kinds of terrain. _____
3. Complex, heat-sensitive organs packed with nerve endings that some snakes use to accurately detect the direction and distance of other animals. _____
4. Have special shock absorbers that are better than anything man has ever made. _____
5. This organ in some woodpeckers is five inches long (or three times the length of their beaks). _____
6. Unlike most birds, woodpeckers have four of these—two that point forward and two that point backward. _____

TRUE OR FALSE

1. ___ God made flying creatures on day six of Creation.
2. ___ Some snakes have fangs from which they inject a poison called venom.
3. ___ God specially created all animals except snakes, which He allowed to evolve over millions of years by random chance and mutations.
4. ___ Woodpeckers can strike a hard surface 20 times per second and several thousand times a day without ever getting hurt.
5. ___ The polar bear has white skin.
6. ___ The first woodpecker successfully drilled a hole in a tree for the first time 2,000 years ago.

ON A SEPARATE SHEET OF PAPER

1. List three reasons why woodpeckers peck against trees.
2. Discuss three things about snakes that testify to their amazing design.





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Editor: Kyle Butt, M.A.
 Associate Editor: Eric Lyons, M.Min.
 Layout and Design: Rob Baker, M.Ed.

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The Bear With AMAZING Hair

EMMA BAKER

A FEW YEARS AGO, THE CITY OF MONTGOMERY, ALABAMA HAD A FEW DAYS OF SNOW. NOW, THIS DOES not happen very often in the Deep South, so I wanted to enjoy every minute of this cold and beautiful snow. After just two hours of playing in the snow my hands felt numb, and my ears and nose felt like they were frozen. Although the temperature was only a few degrees below freezing, I could not imagine living in that type of environment all the time. Yet, that is exactly what God's amazingly designed polar bears do.

Polar bears live in the Arctic where temperatures can get as cold as 50 degrees **below** zero. How can these bears survive such cold temperatures? It is because God created their fur in a special way that keeps them warm. (By the way, did you know that a polar bear's skin is not really white? You are probably thinking if a polar bear's skin is not white, what color is it? A polar bear's skin is black; these black-skinned

bears have air-filled hairs that make them look whitish-yellow.)

Polar bears have two layers of fur.

The first layer is soft, fuzzy, and colorless, and rests against the skin. The second layer is filled with long, thick air-filled fur. The air-filled fur is the key to the polar bear's warmth. The air in the fur acts as layers of protection from the cold. (Just like when it was cold here in Montgomery, I had to put on multiple layers of clothes to keep me warm.) God knew what He was doing when He created polar bears.

Another amazing thing about the fur on these bears is that their fur keeps the heat in so well that even infrared cameras (cameras that measure the amount of heat rays given off by something) have a hard time detecting them. Paul definitely was right when he said God's "invisible attributes are clearly seen, being understood by the things that are **made...**" (Romans 1:20).



ANSWERS

SOLVE, FIND, AND CIRCLE: 1. infrared; 2. snakes; 3. pits; 4. woodpeckers; 5. tongue; 6. toes.
 TRUE OR FALSE: 1-F; 2-T; 3-F; 4-T; 5-F; 6-F.

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