

August 2010  
Volume 21:08

# Discovery

*Scripture & Science for Kids*





# The Amazing THORNY DEVIL

Imagine a lizard about the size of a baseball that is covered in hard spikes that stick out of its body in all directions. That mental picture will help you think about one of God's most amazing creatures—the Thorny Devil. You might wonder how the Thorny Devil got its name. Of course, the spikes on the lizard's skin look like thorns, so the "Thorny" part of its name is easy to understand. But why is it called "Devil"? In 1841, a man named John Grey named the lizard *Moloch Horridus*. Grey named the lizard after the Canaanite god Moloch (also spelled Molech), because of the two horns that protrude out of the lizard's head. The term *Horridus* can mean rough and spiky, or it can mean terrible or dreadful. While the Thorny Devil may look dreadful, it happens to be a

very easy-going, slow moving lizard that humans can handle without it becoming aggressive.

Not only is the Thorny Devil very unique in the way that it looks, but God also equipped this little wonder with some amazing tools and skills. Since the Thorny Devil lives in the deserts of central Australia, water is often very difficult to find. In order for the Thorny Devil to make the most of any water it comes across, God specially designed the lizard's skin. Along the lizard's body there are hundreds of tiny, grooved channels that all lead to the corners of the animal's mouth. When water touches the skin of a Thorny Devil, the tiny grooves "suck up" the water by using something called capillary action. Think about it like this. Suppose you spill a glass of water and use a paper towel to clean it up. When you dip the paper towel in the water, the water seeps up the towel to parts that

are not even touching the water. Also, it is like putting a wick in oil, and the oil seeps all the way through the wick, even to parts that are not touching the oil.



www.Wikipedia.org

would you want to eat something that looks like a pincushion, full of sharp spikes? Me neither. In addition to its spikes, the Thorny Devil has a "false head" on its neck just behind his real head. This false head is large and spiky. When the Thorny Devil is threatened, it can lower its real head between its front two legs and raise its "false head" to look like a head. By doing this, it protects its vital, important organs, and makes its spiky "head" look much more difficult for a predator to swallow. As if that were not enough, the Thorny Devil can puff itself up by sucking in air so that it looks like an even bigger spiky pincushion. And it can change color.

Maybe you were wondering what this prickly little critter eats. Ants. That's it, just ants, all the time, for every meal, every day. But it sure can eat a lot of them. A Thorny Devil finds a trail where ants are walking. Then it positions itself along the trail so that it can stick out its sticky tongue and catch one ant at a time. It is so fast, that it can catch 45 ants per minute, and some people say that it can eat 1,000-3,000 ants per meal. That is one ant-loving, bristly lizard. I would hate to be an ant that came across the Thorny Devil's path.

The Thorny Devil is a great example of God's amazing design. False ideas like evolution can never explain

the Thorny Devil's amazing skin and effective defense system. Only God could design such an interesting, ingenious creature that can thrive in desert climates. The Thorny Devil is a big thorny problem for people who believe in evolution.

In the same way, the Thorny Devil "sucks up" water. So, if the Thorny Devil wants a drink, it can simply step in water and suck up the entire puddle and bring the water to its mouth with the tiny channels on its skin. It never even has to put its mouth in the water. This ability keeps the lizard alive, because any dew or moisture on plants or in the sand can be taken into its body this way.

Also, God gave the Thorny Devil several interesting ways to defend itself. Of course, the most obvious defensive tool of the Thorny Devil is its spiky skin. Just think, if you were a predator,





# COOL Camels are HOT to Trot

ERIC LYONS

Camels may live in some of the **hottest** places on Earth, but they are some of the **coolest** (and comical) creatures that God ever created. Just one look at their skinny legs, knobby knees, webbed feet, humped back, long neck, stretched face, bushy eyebrows, and big, floppy lips, and you can't help but chuckle. Just be careful not to laugh at a camel too long: you might irritate him. And, if you bother him too much, he might just bite you, kick you, or even "spit" at you. Well, it is not really saliva (which humans are fond of spitting). Camels actually burp up partly digested food (called "cud") and spray their agitators by flinging the greenish gunk from their floppy lips. You may not have to worry about this with well-trained camels, but if you agitate a crabby camel, WATCH OUT!



## One-Hump Wonders

Some camels have two humps. These camels are known as Bactrian [BACK-tree-un] camels and live mostly in Central Asia. The most common camel on Earth, however, is the one-hump Arabian camel, known as the dromedary [DROM-i-dair-ee] camel.

As a kid, I often heard that a camel can go long periods of time without drinking "because he stores large amounts of water in his hump." It is true that a camel can go long periods of time (days or even months) without drinking, but he does **not** store **water** in his hump. God made a camel with the ability to store **fat** in his hump. A healthy, well-fed camel can have a hump that weighs as much as 80 pounds. When a camel goes on long journeys (often carrying people or supplies) and food becomes scarce, he relies on stored fat for energy. The longer a camel goes without eating, the more stored fat he uses. At the same time, however, the hump gets smaller and smaller, and often begins to hang off to one side. Later, when the camel is able to get his fill of food again, his hump begins to fill out and goes back to normal.

## The Creator's Conserver

How is it that a camel can go days, or even months, without a drink of water? What have scientists learned about the amazing, God-given design of this water-conserving creature?



First, a camel can get a large amount of the water his body needs from the plants that he eats. This is especially true in the winter time when plants hold more moisture than in the summer months. A camel can even get water from eating cacti (plural of cactus) without hurting his mouth. Can you imagine eating a cactus? A camel can consume such a prickly plant because God gave him a very tough lining in his mouth—so tough that the thorns of a cactus cannot break through the skin.

Second, unlike most animals, a camel loses very little of his water in the form of sweat. God made the camel so that the less water that is available to him, the less he sweats.

Third, camels do not lose great amounts of moisture when they exhale. God designed the nose of a camel with a special mucous that helps to dehydrate (take water out of) much of the moist

air coming up from his lungs, recirculating the water throughout his body. Rather than losing great amounts of moisture when he exhales, a camel can conserve as much as 60% of his water.

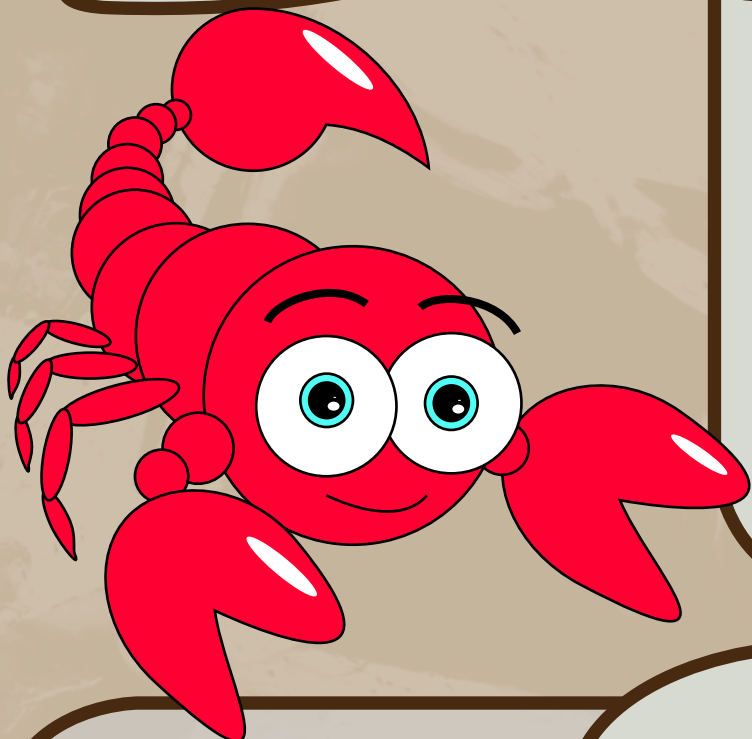
A final reason that camels can go several days without water in the summer time and several months without water in the winter time, is because they can drink so much of it when it's available. A thirsty camel can drink more than 20 gallons of water in only 10 minutes! Remarkably, a camel's stomach may be empty only a few minutes after taking in such a large amount of water. How can this be? Because God designed the camel with billions of small cells that store all of the water so the camel will have it at a later time when water is scarce (such as when he is on a journey through the desert).

Mindless evolution cannot logically explain the wondrous design of the camel. No, the cool, comical, conserving camel is an amazing creature that testifies to an awesome Creator.





# ACTIVITY PAGES



## WORD SEARCH

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

Camel	Lizard
Water	Desert
Scorpion	Venom
Dromedary	Bactrian
Stinger	Design

## MATCHING

- \_\_\_\_\_ Arabian camel
- \_\_\_\_\_ Partly digested food
- \_\_\_\_\_ External skeleton
- \_\_\_\_\_ *Moloch Horridus*
- \_\_\_\_\_ A scorpion's plier-like pincers
- \_\_\_\_\_ Camels that live mostly in Central Asia
- \_\_\_\_\_ Has eight legs and belongs to the *Arachnida* class
- \_\_\_\_\_ Created all things with the breath of His mouth

- |                     |                |
|---------------------|----------------|
| A. Scorpion         | F. Cud         |
| B. Bactrian         | G. Exoskeleton |
| C. Pedipalps        | H. Dromedary   |
| D. God              |                |
| E. The Thorny Devil |                |

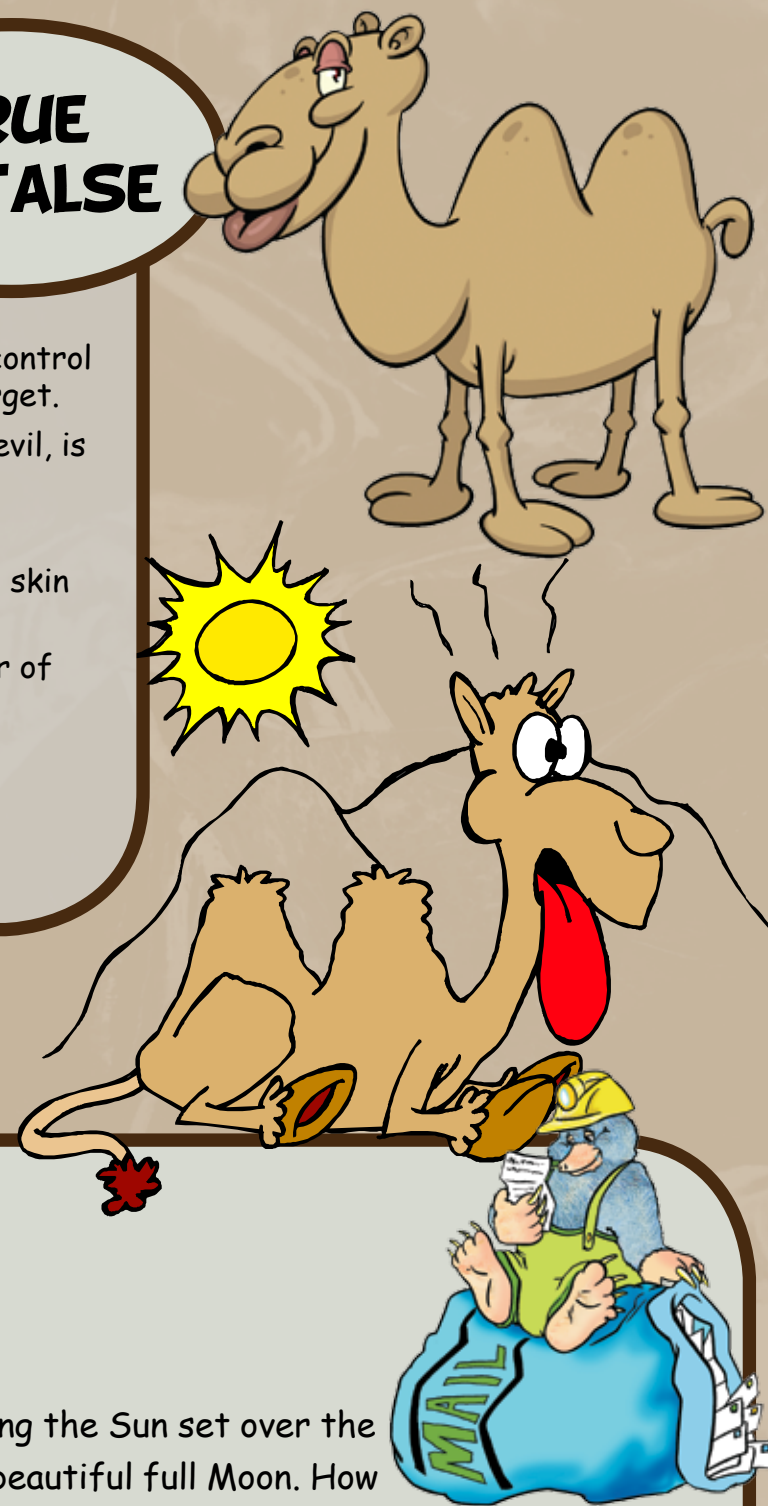
## ON A SEPARATE SHEET OF PAPER

- Write down three ways God designed camels to conserve water.
- Explain how the Thorny Devil makes the most of the water with which it comes in contact.



## TRUE OR FALSE

- Camels store water in their humps.
- The longer a camel goes without eating, the more stored fat he uses.
- Camels can eat cacti.
- Scorpions were designed to be able to control their venom based on the size of its target.
- The Thorny Devil, like the Tasmanian Devil, is a mammal.
- Scorpions evolved millions of years ago.
- The Thorny Devil has specially designed skin that helps it make the most of water.
- Camels were created by God on day four of Creation.
- The Thorny Devil is a great example of evolution in action.
- A thirsty camel can drink more than 20 gallons of water in only 10 minutes.



Dear Digger Doug,

How were the Sun and Moon formed?

—Robbie, Henderson, TN

Dear Robbie,

Thanks for your terrific question. I love watching the Sun set over the ocean, or looking up into the night sky to see a beautiful full Moon. How did God make those two "heavenly bodies"? He spoke them into existence simply by using His words. That idea is strange to us, because for humans to "make" something, we have to start with something that is already there. If we want to make bricks, we have to have clay. If we want to build a house, we need wood or metal. But God is not like humans. He created the world, and the Sun and Moon from absolutely nothing. The writer of Psalms said: "By the word of the Lord the heavens were made, and all the host of them by the breath of His mouth" (Psalm 33:6). Scientists use the term *ex nihilo*, which means "out of nothing," to describe how God made the Universe. What a wonderful God Who can create anything He wants simply by speaking it into existence!





APOLOGETICS PRESS, INC.  
 230 Landmark Drive  
 Montgomery, AL 36117  
 (800) 234-8558 (Orders)  
 (334) 272-8558  
 www.DiscoveryMagazine.com  
 © 2010 Apologetics Press, Inc.  
 All Rights Reserved

Nonprofit Organization  
 U.S. Postage  
**PAID**  
 Montgomery, AL  
 Permit No. 513

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

ADDRESS SERVICE REQUESTED

## Scorpions: The Spectacular, Stinging Sensations

Dave Miller

I first learned about scorpions growing up on the Arizona desert. It was not unusual for one to walk across our living room floor! The scorpion is yet another one of God's amazing creatures. Though commonly thought of as desert animals, they actually live all over the world. Similar to spiders, mites, and ticks, scorpions have eight legs and belong to the *Arachnida* class with some 1,400 species worldwide. Scorpions have a long body and a segmented tail that is tipped with a venomous stinger. They have a pair of pincer-like pincers (pedipalps) for grasping. At the end of the abdomen is the telson—a bulb that contains venom glands and has a sharp, curved stinger to inject the venom (see Revelation 9:5).

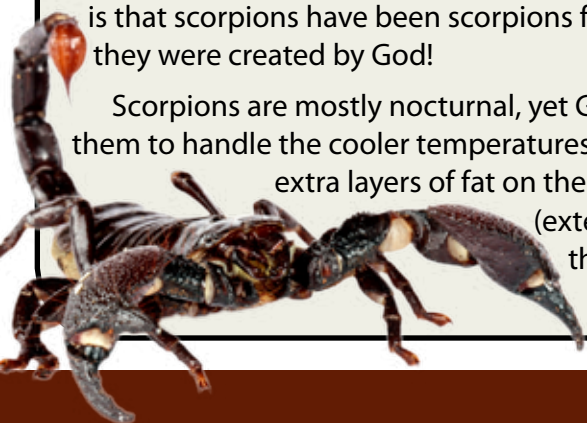
Evolutionists say that fossilized scorpions are found in the Paleozoic strata and date back 430 million years ago. But, of course, that is silly since God made the first ones only about 6,000 years ago. Even evolutionists admit that the fossilized scorpions "appear very similar to present day species." Obviously, the reason for that is that scorpions have been scorpions from the time they were created by God!

Scorpions are mostly nocturnal, yet God designed them to handle the cooler temperatures by giving them extra layers of fat on their exoskeleton (external skeleton) that helps them maintain their

internal fluid level. Shining a black light on a scorpion in the dark causes the fluorescent chemicals in its body to glow.

Scorpions feed on insects, spiders, centipedes, and even other scorpions. Their pincers are equipped with fine, highly sensitive hairs that sense vibrations in the air, while the tips of their legs have small organs that detect vibrations in the ground. The moment an insect touches these motion detectors, the scorpion uses its pincers to catch the prey. It can go long periods without food due to its very efficient food storage organ.

Another amazing aspect of the divinely designed scorpion is its venom—a complex mixture of neurotoxins (toxins that affect the victim's nervous system). The scorpion can actually control venom flow based on the size of the target. It can use "pre-venom" when first faced with a threat. If the threat continues, it can release a more potent venom. This ability enables the scorpion to conserve venom for use when more is needed for larger predators or prey. This ability points to the Grand Designer! Like all of God's complex creatures, there is so much more to learn about scorpions that humans do not yet understand.



## ANSWERS

MATCHING: 1. H (Dromedary); 2. F (Cud); 3. G (Exoskeleton); 4. E (The Thorny Devil); 5. C (Pedipalps); 6. B (Bactrian); 7. A (Scorpion); 8. D (God).  
 TRUE OR FALSE: 1-F; 2-T; 3-T; 4-T; 5-F; 6-F; 7-T; 8-F; 9-F; 10-T.

Yearly Subscription Fees in U.S. Funds Only • United States of America: Individual rate: \$12 each • Bulk rate (at least 5 to same address): \$8.50 each.  
 Club rate (at least 10 to different address paid together): \$10 • Homeschool discount 10% off above rates • Canada: \$16 each (bulk: \$12) • Overseas Airmail: \$21 each (bulk: \$14)

