



IN THE BEGINNING...

by Ginny Neil

Plop! The old cow swishes her tail and drops a brown “pie” on the ground. Other piles decorate the pasture behind her. With more than one hundred million cattle in the United States, over two billion pounds of cow manure are produced each day. Where does it all go?

Most dung beetles are smaller than your thumbnail, but if manure is on the menu, they can clean up a big mess in a hurry. A scientist named Jo Anderson once watched dung beetles in Africa clean up an elephant pat that weighed three and a half pounds. It took them only two hours. He said that over 16,000 beetles showed up for dinner.

There are about 7,000 different kinds of dung beetles on Earth. They live on every continent except Antarctica.

It’s unbelievable, but they are fussy eaters. Each type of beetle likes a different kind of manure. For example, dung beetles in Australia like the dry pellets excreted by koalas and kangaroos. When farmers there started raising cattle, the wet cow dung piled up because none of the native beetles liked to eat it. To solve their problems, the farmers bought and released the 48 species of dung beetles that like wet dung. The bugs went to work, cleaning up the manure. Before long, the brown piles started disappearing.

A dung beetle begins life as an egg, buried in a little ball of manure. In about a week, the beetle egg (which is about the size of the period at the end of this sentence) wiggles and pops open. A small white larva worms her way out. This tiny, tubular insect starts to eat the dung around her. A baby beetle feasts on manure for about three weeks, shedding her skin and growing a new one three times. Then she is ready to become a pupa.

For two weeks, she rests ^{inside} her cocoon while her body changes. When she breaks out, the larva has lost her pale white skin and worm-like shape. She is now a shiny dung beetle about the size and shape of a penny. She may live three to five years. Like all other insects, she has a hard exoskeleton and six legs. Two of them are special digging legs that help her tunnel out of her home.

The new beetle flies around looking for a pat of dung. When she finds one she likes, she waits there until a male arrives. He rolls some of it into a ball and presents it to her. If she likes his work, she will accept the gift of dung from him.

Next they move the ball to a new location by standing on their heads and walking backwards. They use their long back legs to roll it. Sometimes the female rides on top of the ball while the male pushes. When they get the ball to where they want it, the female lays her eggs in it. Then the beetles bury the ball.

Not all dung beetles are rollers. Some of them

“THOU hast created all things, and for THY pleasure they are and were created.” REVELATION 4:11



are called tunnelers. The female tunneling beetle digs a tunnel under a pile of manure, along with numerous side chambers. Then the male carries dung down to her. She rolls it into tiny balls and inserts an egg in each one. She stores these balls in the tunnels.

Other types of beetles, called dwellers, make their homes right in a patty. They eat their home until the

patty disappears and then search for a new place to live.

Dung beetles have various ways of locating lunch. Some follow their noses and may fly up to ten miles sniffing out their favorite flavor of dung. Others ride around on the back of an animal. There is even a beetle, the *Zonocopris gibbicolis*, that rides on the back of a snail. When the snail provides the dinner, the beetle chows down. And the ecosystem goes on. ◀

...GOD created *Dung Beetles*

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