

# The mighty dung beetle



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While the majority of the human population quivers at the thought of ingesting manure, the mighty dung beetle rises to the challenge, and uses the manure in unique ways. Without dung beetles, pastures would be overrun with manure and flies- and parasites would run amuck. I'm no expert but according to the Sustainable Parasite Management division at the University of Pretoria in South Africa, affectionately known as PU, the dung beetle is beneficial to our environment. They help keep the soil cleaner, reduce pollution and algae formation in our waters, and acts as an organic pooper scooper for our livestock farms.

First let's begin by identifying the different types of dung beetles. These meadow muffin munchers are divided into three classifications, Rollers, Tunnellers and Dwellers. The Rollers do just that.. they roll the prairie patties into smooth, round balls called brood balls. Then they roll the brood balls away to a more desirable location. Once the rollers find the perfect location for their new abode, they bury it into the ground. The female will lay a single egg into the brood ball and then coat and seal it with a mixture of dung, saliva, and of course, her own fecal matter.

After the egg hatches, the baby dung beetle devours the dung and lives in the brood ball until it reaches maturity. Then there are the Tunnellers. They dig tunnels in the ground in depths of between a few centimeters to 1 meter. This is large enough for them to live and move around in. Once the tunnel has been dug, they pull the manure in to the tunnel and place it throughout. Inside their new home is where the female lays her eggs. Storing the manure underground helps keep it fresh and protects the growing babies from predators and parasites.

The last of the waste managers are the Dwellers who live on top of the pasture patty. The female lays her eggs on top of manure piles, and the entire development from egg to adult takes place inside the pile. Dwellers are smallest of the three and they seem to like cow patties the best for raising a family. The adults can be found in fresh, moist droppings, while the babies are slowly growing in dung that is drying out. Now that you know a little about the different types of dung beetles, let's see how they are drawn to manure.

Dr. Patricia Richardson, Research Associate at the University of Texas, states, adult dung beetles are drawn to manure by odor. Many are species-specific in that they prefer a certain type of animal manure. Just like people searching for the perfect home, the dung beetle will fly up to ten miles in search of just the right patty. They can attack dung pats within seconds after they drop. Some dung beetles will even hitch a ride near the tails of animals in anticipation of a deposit. Once drawn by the odor, the adults use the liquid contents of the manure for their nourishment.

In addition; a single cow patty can attract 60-80 adult flies. That would be a lot of flies if it were not for the competitive dung beetle. With all of the rolling and tunneling and dwelling of the dung beetle, flies and other harmful parasites don't have a chance. Our society isn't the first to appreciate the contributions of the dung beetles. The scarab is in the roller family of dung beetles. Yep! The Egyptians have long been known to have a fascination with the dropping dwellers. Jewelry has been crafted and carvings have been drafted in admiration of our mighty dung friends.

In summation while the dung beetle keeps the soil cleaner, reduces pollution and algae formation in our waters, and acts as an organic pooper scooper for our livestock farms, it is also important to understand by removing the dung pat from its original location, this helps cut down on the fly population which is attracted to the dung pat. By making tunnels this will increase soil capacity to absorb and hold water. Therefore one can see how the dung beetle is very important to our environment. So if you really look at it, the world would be a much smellier place if it were not for the tireless efforts of the dung beetles.