

Dung Beetles



There are about 7 000 species of Dung Beetles worldwide and Southern Africa is home to the widest variety, which includes about 780 species.

Dung beetles are very well adapted for their lifestyles. Being a large and robust beetle, often with a nice metallic sheen to them, they have firm forelegs which are saw-toothed and able to cut through compacted dung. The front tibiae are broad and toothed, along with the flattened head which is used for digging as well as raking the dung together and patting it into a ball. The Antennae are fanned and club-shaped and can possibly be used to locate and navigate to the dung piles.

There are four different groups of Dung beetles, and they get divided into the groups according to how they collect the dung and what they do with the dung that has been collected.

1. **The 'Dwellers' (Endocoprids)** - This group of dung beetles remain inside the dung pile, living and breeding in the dung pile.
2. **The 'Tunnellers' (Paracoprids)** - These dung beetles bury their dung directly underneath the dung pile as food for their larvae.
3. **The 'Rollers' (Telecoprids)** - These are the species that roll the dung balls and take it away from the original site, to be eaten or buried somewhere else. This effectively reduces competition with the Dwellers and the Tunnellers.
4. **The Cleptocoprids** – This species of Dung Beetles steals the dung ball from the Rollers, which they will use to lay their eggs.



The most noticeable Dung beetles are the Telecoprids or Ball Rolling dung beetles. They generally roll balls 50 times heavier than their own weight and occasionally up to 80 times. The Ball is pushed with the beetle's hind legs while standing on the forelegs. They typically roll dung balls for different purposes and there are 3 types of dung balls amongst the ball rollers:

1. **The Food ball** – A pair (Male and Female) may roll a ball together to eat.
2. **The Nuptial Ball** – The male may roll the ball and then roll it into a hole for a female, in which they will mate and then consume the ball together.
3. **The Brood ball** – The ball is rolled as a larder for the beetle's larvae. The male will roll the ball upon which the female will sit to lay a single egg. The female pats down into the ball with more dung, giving it the finished pear-shaped appearance. The ball is then buried, and the outer layer will harden keeping the inside moist. When the larvae hatch, it will begin to feed on the reserves and thereafter pupates in its underground dung-walled chamber.



The female can lay up to 60 eggs per season which means that the male must roll 60 of the brood balls alone. An adult dung beetle can live for 2 years or more but are preyed on by a mass of predators including baboons, honey badgers, civets, hornbills, owls, and rollers. Robber flies and wasps may consume the smaller species of dung beetles. The larvae of the dung beetles are mainly dug out of the ground and consumed by honey badgers and civets; however, mongooses may also do this.

Dung beetles can bury more than 1 metric ton of dung per hectare per year. In this regard they are exceptionally important ecologically being responsible for clearing waste to under the ground and in the process, they destroy any eggs of the internal parasites and reduce populations of pest species like flies. At the same time, they return nutrients into the soil and unintentionally facilitate the germination of seeds caught up in the dung that they bury.

Dung beetles may have preferences for different types of dung. Some species specifically colonise coarse elephant and rhino dung while others will prefer the finer dung such as buffalo, zebra or smaller animals' dung. 72% of all dung beetle's species prefer herbivore and omnivore dung over carnivore scat.

In one pile of dung there could be thousands of dung beetles thus it is important to take care and not drive over the dung that are in the roads.

