

# Buried with care: a Coleopteran romance

It's not often you stumble upon a half-buried (dead) bird in the woods and think, "Oh, that's really sweet". But carrion beetles have a way of turning something *a bit gross* into something rather sweet. This thought arose when I witnessed two carrion beetles, a male and a female, burying a carcass into the soil in my local woodland near my house. I stopped to watch them for a while, curious as to what they were doing. I took some videos, and when I got home, I started to research their behaviour to try and figure out exactly what they were doing, especially since I hadn't seen many insects do this before.



Here's what I learned: Carrion beetles are a family containing approximately 189 species worldwide [1, 2]. Some species in this family eat only carrion (dead animals), usually small birds and mammals, and can be found in most places where these carcasses happen to be present [3].

These species are known as necrophagous, and they guard and bury the small carcasses together in the soil to lay their eggs, and care for their young [4, 5].

The two parents start by flying around together through woodlands, farms, even towns, searching for a suitable carcass, as the opportunity for them to reproduce depends solely on the chance that they find one [6].



Once they do, the parents start by working together to remove all of the feathers or fur [6]. As they do this, they cover the carcass with a liquid they produce from their bums (yes, really!), this slows decomposition and reduces bacterial growth [6]. After this, they bury the carcass by digging and dragging it underground, turning it into an edible nursery for their young [7]. The females then lay their eggs in soil near to the carcass, and stay close by, waiting for them to hatch [4].

As the eggs hatch and the larvae begin to grow, the young start asking for food by tapping their heads onto the mouthparts of their parents [4]. The parents oblige, and regurgitate some food to feed to them [4].



As the larvae grow older they eventually get ready to pupate (the process of transforming into young adults), and burrow themselves into the soil. Whilst this is happening, the parents constantly guard the carcass together, fending off any other predatory insects that may be hungry and want to snack on either the carcass or their young.



Now you may be thinking, *"What is the purpose of this? I didn't know insects could do this!"*, and I can explain that too. The reasons certain species of carrion beetles care for their young in this way are twofold. Firstly, parental care increases the larvae's chances of survival by protecting them from injury, predation, and environmental stressors [8]. Secondly, it supports healthy growth, ensuring that when the young eventually go out into the world on their own, they are physically strong enough to survive [8]. Research by entomologists has shown that the consistent presence of parents directly contributes to larger larvae and higher egg hatching success [9]. In other words, larvae that develop on carcasses with their parents present are larger and have significantly higher survival rates than those that are abandoned [9].

Learning all of this made me realise that these small, easily overlooked acts of care are doing more than just raising their next generation. Carrion beetles provide vital ecological services: they recycle nutrients back into our soils, limit the spread of disease, and support the complex food webs that keep ecosystems functioning. What looks like nothing of importance beneath the forest floor is actually an integral process that helps keep our planet going.

It also made me realise how not-so-different they are from us. These beetles work as a team, protect their young, and invest everything they have into giving them the best possible start in life. When we stop and really look, it becomes harder to dismiss insects as insignificant. They are not just background noise in our gardens, woodlands or parks; they are parents, caretakers, and essential workers quietly holding ecosystems together.

I hope this story stays with you, whether you are an entomologist, someone with a blossoming curiosity, or someone who thinks insects simply aren't for them. Maybe it's information you share with a friend or sibling who has never considered insects in this way before. Because sharing knowledge is how curiosity grows, and curiosity is how passion begins. So next time you come across an insect, stop for a moment. Watch what it is doing. You might just find something unexpectedly sweet, and something far more important than you realised.

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## References

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