



The wax worm has been found to eat plastic | Photo source [Krysten Merriman on Unsplash](#)

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RESEARCHERS EXPLORE USING CATERPILLARS TO HELP REDUCE PLASTIC WASTE



Researchers are working to discover how the waxworm manages to thrive from eating plastic bags

Spotted: Every year, the world produces more than 400 million tons of plastic, much of which ends up in landfills, the ocean and even in our bodies. Getting rid of this plastic tsunami has so far proven an insurmountable challenge. However, a team of scientists at Brandon University in Manitoba have been exploring the possibility of using the caterpillar larvae of the greater wax moth, which may be able to eat the plastic.

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The waxworm has evolved to invade beehives by eating the wax honeycomb, which is partly made of long hydrocarbon molecules chains, similar to the ones used to make polyethene plastic. The researchers, led by Dr Christophe LeMoine, found that the gut bacteria in the waxworm larvae can break down the molecules in polyethene plastic, as well as a honeycomb. In fact, the team found that some of the bacteria seem to prefer plastic.

LeMoine is [quick to point out](#) that waxworm larvae are not an answer to the world's plastic problem, for it takes about 60 waxworms a bit under a week to chomp through one inch-square of plastic.

Around the world, people are waking up to the need for reducing and eliminating the use of plastics. At Springwise, we have seen innovations aimed at combating plastic waste, such as [biodegradable plastic made from milk](#) and a [washing machine filter designed to capture microplastics](#).

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Takeaway:

The waxworm is not the only plastivore that scientists have identified. In fact, researchers have discovered more than 50 species that can use plastics as food. Understanding exactly how these insects and micro-organisms turn plastic into energy may help to reduce or eliminate the mountains of non-biodegradable waste that have built up in landfills. It takes around 500 years for many plastics to decompose, and only 9 per cent of plastics are recycled. Given those stark figures, even more work in this area is much needed, before we can begin to make a dent.