



A Caterpillar's Fascinating Life

If they are to be successful and make it to the metamorphosis stage so that they can turn into butterflies and moths, caterpillars not only have to store up lots of energy but also protect themselves from their many predators.

Effective protection

Their soft bodies make caterpillars vulnerable and the perfect prey for birds, insects, spiders, reptiles and amphibians. So they have evolved some very clever means of protecting themselves.

Some have bright, contrasting colours warning predators that they are poisonous. Others avoid would-be attackers with perfect camouflage. They may be disguised as leaves, twigs, moss, lichen and even bird droppings. Others are marked with eyespots that make them look like little snakes. Many others have an osmetarium, an organ that emits a foul odour. And then there are caterpillars covered in hairs that make them difficult to swallow – and cushion them if they fall!

Unequal senses

Caterpillars have five senses, but some are better developed than others. Their mouthparts contain taste cells in the form of chemical detectors, to tell them what they can eat. Near their mouths there are also small antennae that pick up odours.

When it comes to sensing their immediate environment, to detect vibrations in the air, for instance, caterpillars use their tactile hairs. Many of them have projections at either end of their bodies that act as sensory organs.

It is thought that caterpillars, like butterflies and moths, have no sense of hearing. They can barely see, and use their eyes (stemmata) simply to distinguish light from shadow.

To ensure the survival of the species and make sure their offspring have enough to eat, females lay their eggs on leaves of their particular host plants. The caterpillars that hatch will later pupate, eventually emerging as butterflies or moths.