

What is a Caterpillar?

Ugly ducklings of the insect world. Greedy guzzling grubs. Squashy sausages fit only as food for birds, or targets for the spray-can. Is that how we think of caterpillars?

Well, we'd be wrong. Nothing could be further from the truth. Caterpillars are worth far more than a passing glance or a shot of insecticide. For one thing they carry inside them the blueprint for some of nature's loveliest creations—the soft-winged moths and flighty butterflies. And they play a major part in the health of the planet.

Caterpillars are the young stages or larvae (sing: larva) of moths and butterflies. In appearance and behavior they are so different from their parents it's hard to think of them as the same insects.

These pictures of a common butterfly and a common moth and their offspring, show some of the basic differences in appearance between caterpillars and the adults they grow into.



This Emperor Gum moth (yes, another Emperor) flies by night so neither colour nor keen sight are important. It depends on a strong sense of smell rather than sight to find its way in the dark.



The caterpillar of the Emperor Gum moth is out and about by day as well as by night, but its armory of brilliantly coloured spikes could be an unpleasant beakful for an attacking bird.



The Tailed Emperor caterpillar simply does not wish to be seen. On the foliage of an Acacia tree it blends well enough with green leaves and golden blossoms to fool most predators.

The bright wings and keen eyes of day-flying butterflies like this Tailed Emperor help it to find food, recognize a mate, lay its eggs successfully and produce the next generation of caterpillars



In the Beginning

Moths, Mothers of Many

For a caterpillar to survive in its dangerous world, the first rule is— have lots of brothers and sisters. But first there must be eggs. The eggs are usually laid on or near the caterpillars' food plant, which the female must find by scent.

When a moth or butterfly lays her eggs she doesn't stop at just a few. For at least some of her offspring to survive she must produce a huge surplus of siblings, because caterpillars are a major source of food for others. But of all those that hatch enough do survive to carry on the species.

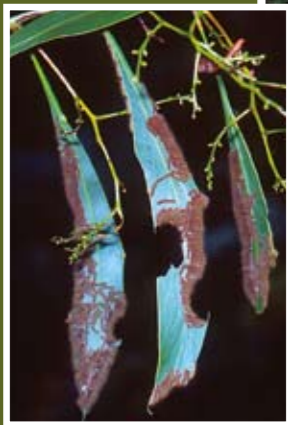


Moths very often lay their eggs in batches, usually on their food-plant, and sometimes hidden for safety. Some female moths can produce a mass of downy material from the tip of the abdomen or elsewhere on their bodies, and use this like an eiderdown to cover the mass of eggs.

These Bag Shelter moths are laying their eggs at the base of an Acacia tree, the food plant of their caterpillars. Each batch of eggs is covered with a mound of 'fluff' from the moth's body that could deter egg-predators by its resemblance to some kind of fungus on the tree.



On the first night out of their protective covering these young hatchlings will play follow-my-leader up to the tree's leafy crown, laying down a silken pathway as they go. This behaviour has given the Bag Shelter



The young Processionary caterpillars feed on the acacia leaves all night, and just before dawn they make their way down to the base of the tree using the silk trail as a guide. There they spend the day in a silken tent that they continue to weave as they come and go and as they grow.

The caterpillars live together and feed together all their lives. Easy pickings for an enemy? Perhaps, but birds beware! The fluff over the eggs, the hairs on the caterpillars and their silken tent all carry an irritant poison as do the hairs of other related processionary caterpillars.



For a short time this newly hatched Wanderer caterpillar will depend on its dull colour to avoid being seen and eaten by a predator. Like most butterfly larvae, it must face many dangers on its own.



This Wanderer butterfly is laying her eggs singly on her caterpillars' milkweed food plants. They will not feed on anything but milkweed plants but she never makes a mistake in her choice

As the caterpillar grows it takes on quite a different appearance, and feeds and moves about openly in broad daylight. The bands of black and gold it wears are a warning to birds that it is not good to eat.



Butterflies Spread the Risk

A nectar drinker herself, the egg-laying female butterfly or moth has no interest in meals that must be chewed, but she seeks out exactly the right food for her offspring

Most butterflies don't lay their eggs altogether in a batch but singly on a leaf or stem, or sometimes a flower, of the caterpillars' food plant. The eggs are well spaced and laid on a number of plants which might be growing far apart.

With the newly hatched caterpillars spread out in this way, a hungry predator looking for snacks could waste energy searching and many of the hatchlings would be overlooked.

The egg-laying female moth or butterfly gives her offspring a good start in life by providing the right food-plant and some protection. All the same, it is very much a case of "every care and no responsibility" because once the eggs are laid their mother deserts them.