

Caterpillars — an overview



Vapourer (M-S)

Letters after caterpillar name indicate the months when you may see it
 Ap = April, Au = August, Ja = Jan, Ju = June, Jy = July, Mr = March, M = May

Caterpillars are fascinating and each species is unique. Many blend into their surroundings by matching colour, or shape to the plants on which they live. Others are brightly coloured to warn predators away.

There are over a thousand caterpillar species locally. This leaflet is not an identification guide but an introduction to the marvel of caterpillars. The plant on which you find a caterpillar feeding is a good clue to its identity; as most species are restricted to eating a few particular plants.

You will find many caterpillar species in any garden with a variety of native species of flowers, shrubs and trees; and more in the countryside. Most are found in spring and early summer (when the leaves are most nutritious and growing fastest) but some overwinter, so caterpillars may be found in every month.

As they grow, caterpillars' inelastic skins become too small, so they are repeatedly replaced with larger ones. Increasing size can make an original camouflage scheme less effective, so colour and shape can change dramatically to help the caterpillar escape predation. Even so, most caterpillars will be eaten (or suffer disease) before they develop completely, pupate and become adults.

Camouflaged Caterpillars

Caterpillars have evolved to avoid predation. Those that have little defence usually try to stay hidden and if too large to hide inside their food (like leaf miners and species inside plant stems) they have evolved colours, shapes and behaviours that help them blend in. So very many are green and sit along leaves' mid-ribs. One group live inside cases that they build from bits of their surroundings! (see right)



Psyche casta (Bagworm) (Jy-M)



Brimstone butterfly (Ap-Jy)



Small White (Ap-D)



Brimstone moth (Ap-O)



Spectacle (Ju-S)



Hebrew Character (M-S)

Caterpillars may change colour as they change the background in which they live. Identifying green caterpillars can be hard and the fact that different



stages adopt different colours (and possibly shapes), makes it even more challenging.



Brown Hairstreak butterfly (Mr- Jy), early stage on left and final stage on right

Colourful Caterpillars

Some caterpillars are brightly coloured to warn predators that they taste bad, or will make them itch. It benefits all these species to adopt similar colour schemes; usually red and black or yellow and black.

A few are equally colourful but pose no threat, simply mimicking the colour scheme of truly repellent caterpillars, and of bees and wasps.



Cinnabar (M-S)



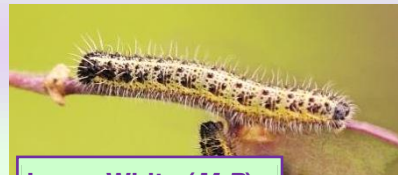
Yellow tail (M-Ju)



Six-spot Burnet (Ap-Ju)



Emperor Moth (M-Au)



Large White (M-D)



Small Tortoiseshell (Ap-S)



Lackey (Ap-Jy)

Hairy Caterpillars

It is best not to touch any hairy caterpillars. The hairs of some species cause a painful rash. Recently imported to our area of the UK, the Oak Processionary is one of the most harmful. Its hairs may even cause breathing difficulties if inhaled.



Oak Processionary Moth (M-Jy)

Living in a group helps increase the threat these caterpillars pose and each caterpillar inside the cluster is protected by those outside it. However, some hairy caterpillars simply mimic the dangerous ones and are incapable of stinging. The caterpillars of Tiger moths lie between the two extremes; only very sensitive skin is made itchy by these hairs.



Garden Tiger (Ap-Jy)



Scarlet Tiger (Jy-M)



Drinker (Ap-M)



Muslin (Ap-S)

Stick - like Caterpillars

Many caterpillars of the Geometrid family of moths look very much like tiny twigs of the trees on which they feed. There are many similar looking caterpillars of this type. Their cryptic shapes, colours and poses help them evade predators that hunt by sight (and human observers too!).

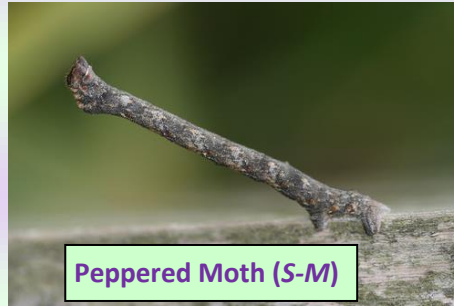
They move by arching, to bring their back legs forwards. Then 'walk' the head forwards; so are called "loopers".



Feathered Thorn (*Ap-Ju*) 'looping'



Pale Brindled Beauty (*M-Ju*)



Peppered Moth (*S-M*)



Brimstone Moth (*Ap-O*). These caterpillars may also be green



These and other types of caterpillar lower themselves on silk threads to pupate in the soil. Sometimes entire woodlands seem to be shrouded in this silk. Although huge numbers of caterpillars can build up and temporarily defoliate trees they rarely kill the tree.

They definitely feed many baby birds.

Colonial Caterpillars

Although the majority of caterpillars feed alone, some feed in groups and tackle threats together. Though some look spiky and scary, most are bluffing. Several butterfly caterpillars respond to the arrival of parasitic wasps, thrashing about in unison, as if they are a single large creature, to try and scare the wasp away. Some caterpillars living in groups are harmful to people, causing severe itching if they or their web, is touched.



Peacock (*Ap-S*)



Small Tortoiseshell (*Ap-S*)

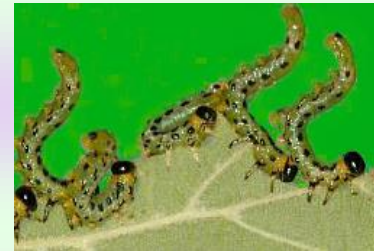
Cannibal Caterpillars

Some caterpillars live solitary lives to get enough food and as others of their kind might eat them. If Orange-tip caterpillars find smaller ones of their species, they eat them (to protect their food source).



Orange-tip (*Ap-Jy*)

Confusing Caterpillars - not butterflies or moths at all



Most caterpillars develop into a butterfly or moth but other insects have similar looking younger stages. Sawfly larvae are much like butterfly and moth caterpillars. Sometimes they adopt the characteristic pose shown left. Sawfly larvae have more pro-legs than caterpillars and just two, larger black eyes.

The Striped Lychnis

The nationally rare Striped Lychnis moth lives in our area. The best way to survey for it is to look for its striking caterpillars (as adults rarely visits light traps and are hard to find). Usually found on Dark Mullein plant flower spikes



Striped Lychnis (Jy -Au)

(occasionally on White Mullein) they can be confused with the much commoner Mullein moth caterpillar which feed on most types of Mullein plants and on Buddleia.



The commoner Mullein (M- Jy)

Concealed Caterpillars

Faced with the dangers associated with feeding in the open, many caterpillars of our smaller moths feed exclusively inside the tissues of leaves. They are known as 'leaf miners'. They may be identified by the characteristic shape of the trail created as they feed and the species of leaf that is 'mined';

<http://www.leafmines.co.uk/>.

Some other species live inside stems and roots.



Stigmella moth species on Bramble. The translucent mines remain visible for many months after the larvae have finished feeding

Scary imposters

A few large moth species have caterpillars with eye-like markings, spikes that resemble stings and they take up weird postures. Though designed to scare away predators, these features are harmless.



False 'Sting' and 'Eyes' on an Elephant Hawk-moth (Ju-S)



'False stings' on Lime Hawk-moth (M-Jy) left, Sallow Kitten (Ju-O) centre and Pale Tussock (Jy-O) right.



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