



Dorset
Council

Natural Environment Team

Advice Note 11



web spinning moths

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Introduction

Observant passers-by may well have noticed a strange phenomenon occurring on our hedges and trees every spring in recent years. Whole sections of hedgerow, sometimes whole trees, have been draped with masses of white or grey silk webbing. And within these webs the plants have often been stripped of their leaves.



What causes web spinning & why?

We are used to the idea of spiders spinning webs but there are a few other creatures, mainly insects, which can also do this.

The main culprits are moths, or rather the larvae of moths. A number of moth larvae produce silk and some species, particularly the Small Ermine moths (*Yponomeuta* species), spin copious amounts of webbing. Webs start small and are not usually noticed, but as the larvae grow so does the webbing, often covering several metres of their food plant. Plant mites, which are not insects, but closely related to spiders, also form silk webs. The mites are generally much smaller than moth larvae.

We do not know what conditions encourage these outbreaks of insects and mites, but it seems that warm summers can encourage them, and cold winters don't deter them. For most species the weather the previous year, when the eggs were laid, is probably more important in determining numbers than the weather when the webs are most visible.

Why spin a web?

Insects employ a variety of ways to survive. One is to lay lots of eggs in an 'egg batch', ensuring safety in numbers when the larvae are small. Often, as they grow, the masses of larvae surround themselves in silk webbing to provide protection, so that they don't become a feast for passing birds.

Brown-tail moth (*Euproctis chrysorrhoea*) and Oak Processionary moth (*Thaumetopoea processionea*) larvae go one stage further in defending the colony. The larvae are covered in tiny toxin filled hairs, called urticating hairs and these often cause an intensely itchy skin rash called urticaria or, more rarely, respiratory and eye problems. The hairs are shed by the larvae throughout their lives, particularly if they are disturbed or if the wind is blowing. Most birds soon learn not to go near these web-builders, and we should do the same! Currently the Oak Processionary moth does not breed in Dorset but may do so in the near future (see below).



Which moths are the main culprits?

The Small Ermine moths

Small Ermine moths are the most widespread web-builders. They can be found on almost any hedgerow throughout Dorset, but tend to be most abundant to the east of Dorchester, and especially around Shaftesbury, Blandford and Sixpenny Handley. The larvae produce the characteristic drapes of silk on the hedges in May and June.

This beautiful group of moths takes its name from the silvery white wings of the adults which are patterned with tiny black dots. There are several species in the group, and their rather inconspicuous larvae feed on a range of plants including hawthorn, blackthorn, spindle, willow and apple. If you examine a stretch of silk web you may well find the larvae or their shed skins.



Adult Small Ermine moth ©Mark Parsons



Small Ermine moth larvae ©Mark Parsons



Small Ermine larval webbing ©Mark Parsons

Other web-building moths

The Small Eggar moth (*Eriogaster lanestris*), Lackey moth (*Malacosoma neustria*), Brown-tail moth and Oak Processionary moth all produce white silk tents, between a golf ball and a small rugby ball in size. When larvae are in great abundance, individual tents may be linked together with strands of silk. Bushes and trees can get defoliated quickly, causing the larvae to disperse in search of food. The larvae are again most obvious in May and June.

Small Eggar moth larvae form a bright white tent usually on wild rose or blackthorn bushes. Unlike all the other species of web-builders, which are best described as minor pests, the Small Eggar is a scarce species nationally, and we are fortunate in Dorset that this moth is quite widespread on hedgerows and scrub thickets throughout the county. It is an important part of the cherished wildlife of our county. The caterpillar is covered in long white hairs which grow from two parallel rows of orange warts running along the length of its body, against a dark grey background.



Small Eggar larva ©Phil Sterling



Small Eggar larval nest ©Phil Sterling

Lackey moth larvae feed in groups within a dense silk web on a range of deciduous shrubs and trees, such as hawthorn, blackthorn and fruit trees.

The distinctive caterpillar grows to 45mm, and is covered in hairs with blue, white, black and orange stripes running down either side of its body.



Lackey moth larva ©Phil Sterling

Larvae of the **Brown-tail moth** start feeding in the autumn, and spend the winter in their silk tent on the tops of bushes or high in trees, and this is the only tent-forming species in Britain to behave in this way. In Dorset, the Brown-tail moth is found commonly from Portland to Christchurch along, or just inland from, the coast although its numbers fluctuate greatly in any area over a period of a few years.

Inland colonies also occur, such as along the A35 between Bere Regis and Red Post junction. The 38-45mm long caterpillar is hairy (including urticating hairs) and dark grey with a line of white marks down each side and a pair of red dots towards the end of its body.



Brown-tail moth larval nest in May ©Phil Sterling



Brown-tail moth larvae ©Phil Sterling



Brown-tail moth larval nests in winter ©Phil Sterling

The **Oak Processionary moth** is currently a rare visitor to Dorset from Europe, but is now well established and breeding in south west London, and it may not be long before it is breeding here. The tent it forms is usually under a woody branch or the trunk of an oak tree, with a characteristic trail of silk leading up into the foliage, along which the larvae travel 'in procession' to feed.

The 20-25mm long caterpillar is grey with a dark stripe along its back, a whitish line along each side and reddish orange warts on its back from which the short urticating hairs protrude. It is also covered in long white hairs.



Adult Oak Processionary moth ©Paul Harris



Web-building mites

Mites can build in numbers very quickly indeed. When conditions are right, mainly in the summer when it is hot and dry, a female mite can lay up to 20 eggs a day, which hatch and mature very quickly – giving rise to up to a million mites within a month or less. The young mites surround themselves with webbing for protection and also to help them disperse which they do by congregating on the top of the web and letting the wind take them.

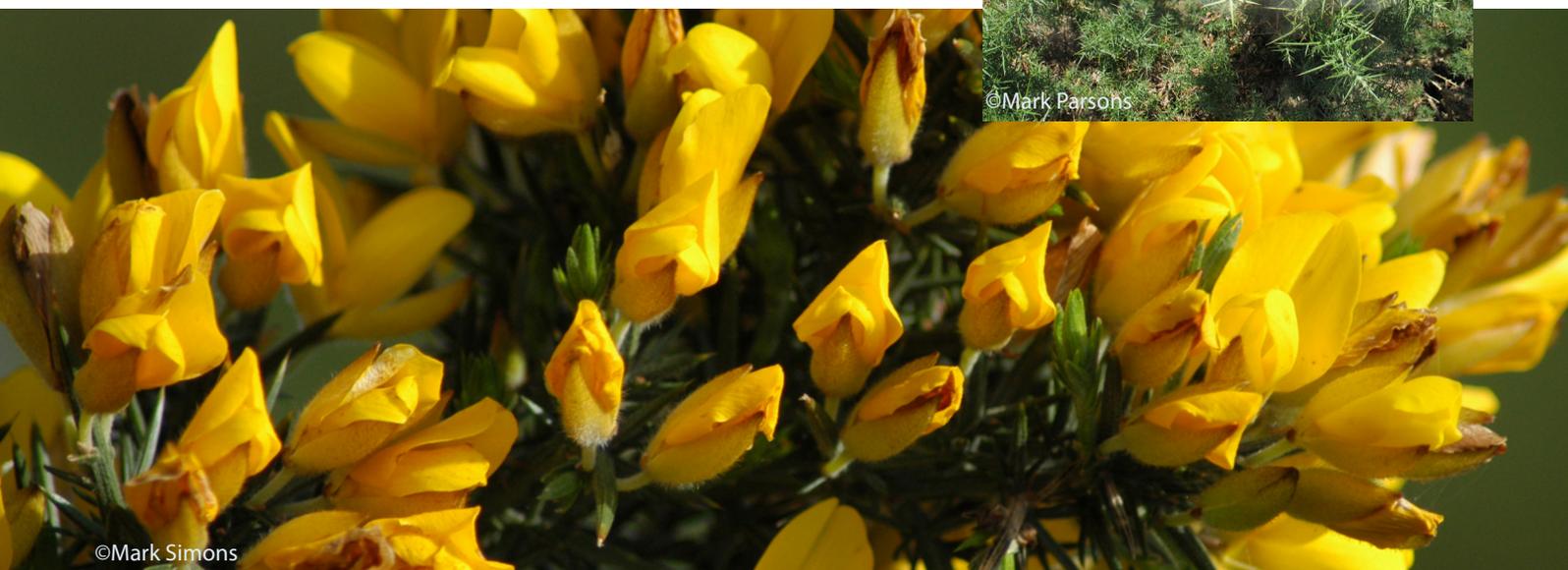
The most obvious web-building mite in Dorset is the Gorse Spider-mite (*Tetranychus lintearius*). Its webs can be seen at almost any time of year, and are often plentiful, if small, in the middle of the winter. As the mites suck the juice out of the Gorse the plant turns from dark green to a sickly yellow, and the infested part of the bush may die back.

The Gorse Spider-mite is widespread in Dorset and can be found wherever Gorse thickets grow. It should not be confused with the Gorse Knot-horn moth (*Oncocera genistella*), whose larvae spin golf ball sized webs on gorse but which is only found at a few coastal locations, mainly in the South of England.

Gorse spider mite web



©Mark Parsons



©Mark Simons

What needs to be done?

The majority of web-builders

In most cases there is nothing to do, other than to report your findings to the Dorset Environmental Records Centre (DERC; see below for contact details). Although defoliated hedges and trees, and branches festooned with silk, look dramatic, most of the time the plants recover very quickly once the larvae have finished feeding or moved on, often within a matter of a few weeks or a month.

Although it appears we are experiencing an increase in frequency of web-building moths, the vast majority of such webs are created by the Small Ermine moths, Lackey moth and Small Eggar moth; these species are harmless and a valued component of our natural heritage.

Of the following two species which pose a potential hazard because of the urticating hairs found on the larvae, only one breeds in Dorset at the moment;

Brown-tail moth

Brown-tail moth larvae can be hazardous to human health, particularly where large numbers of tents and larvae occur near to housing, schools, hospitals and along urban street trees. In the open countryside, such as at Bere Regis, the moth is not a problem. Control of Brown-tail moth is only ever undertaken when the insect becomes extremely abundant. The control methods available are expensive and labour-intensive. It is important that information on the whereabouts of Brown-tail moth tents is sent early to the Dorset Environmental Records Centre; by the time larvae are defoliating garden and street trees in the spring it is too late to contemplate control measures which could have been deployed in the autumn and winter had the location of the tents been known.

Oak Processionary moth

Although this species does not breed in Dorset at the moment, it seems possible that it may in the next few years. It is not native to this country and the larvae present a significant risk to human health. If you think you have found this species then you should notify DERC immediately, as well as the Forestry Commission who are co-ordinating the eradication programme for this species in London. Advice from the Forestry Commission and the Health Protection Agency (see below) is that you should go to your GP if you think you have been affected by the urticating hairs of this species or of the Brown-tail moth.

Contact details & further information

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www.dorsetforyou.com/landscapeandecology

www.dorsetcouncil.gov.uk/environmental-health

Dorset Environmental Records Centre

T: 01305 225081

E: derc@dorsetcouncil.gov.uk

www.derc.org.uk

Butterfly Conservation

T: 01929 400209 – for information and individual species fact sheets.

E: info@butterfly-conservation.org

www.butterfly-conservation.org

Forestry Commission Oak Processionary moth fact sheet:

www.forestry.gov.uk

Government Guidance on Oak Processionary Moth symptoms and health advice:

<https://www.gov.uk/government>

