

The marsh fritillary and its habitats

The marsh fritillary is one of the UK's most threatened butterflies. It occurs on open grassland dominated by tussock-forming grasses and has demanding habitat requirements. As well as needing abundant supplies of its main larval foodplant, devil's-bit scabious (below), it also needs a very specific grassland structure with an uneven patchwork of short and longer vegetation. This is to provide shelter for the caterpillars. This is vitally important as marsh fritillaries remain as caterpillars for almost eleven months and can easily be wiped out by close grazing at any time of year or by cutting during the summer months.



Identification

Marsh fritillary adults fly from May through to mid-June. This is a distinctive butterfly which, if seen clearly, should be easy to identify. As they age, marsh fritillaries can lose a considerable number of scales and may even become partially transparent but the overall patterning should always be discernable. Few other butterflies are likely to be mistaken for marsh fritillary but, at a distance, day-flying male fox moths can look similar. These may be common on some grasslands so be cautious.

male

female

- o Males (left) are strongly marked with bright orange and pale straw patches
- o Females (right) are less strongly marked and have greatly enlarged abdomens



underside

worn individual

- o The undersides are mainly orange. The sexes are similar
- o Look for white cells, two un-broken white bands and a row of black dots
- o Worn butterflies can be partly transparent



Finding the early stages

The marsh fritillary is a protected species and you must not touch or disturb any stage of its life cycle

Eggs are laid during May and early-June in conspicuous batches on the underside of the larval foodplants.

Once hatched, the tiny dull-brown caterpillars spin a small white silken tent in which they feed communally. This is usually on or near to their foodplant and closely resembles a spider's web. These can most easily be found in late-July and in August, just before they leave to spin a new over-wintering web hidden deep in vegetation.

In March, the small caterpillars leave their over-wintering web. They are now jet black and their sizes vary, with the smallest being about 8mm long. They will often move away from their foodplant and gather in groups on dead grass or dead leaves to bask. Mid-morning can be a good time to search and you need dry weather. It doesn't have to be sunny, but if it is windy and cold then the caterpillars tend to remain hidden. Any webs will now be flimsy and very hard to see but look for small black clusters of caterpillars resembling rabbit droppings.

By late-April the caterpillars will disperse to feed alone until they are full-grown and ready to pupate.

egg batch

- Eggs in batches on the underside of leaves in May and early-June
- The eggs are yellow when newly laid, later turning dark red
- By late-July and August, the larval webs are conspicuous



summer larval web



autumn larval web

- By late-August, the webs will typically be very messy. The caterpillars will soon construct a new over-wintering web deep in vegetation
- In spring, caterpillars leave the over-wintering web and bask in small groups



spring caterpillar group



full-grown caterpillar (dark)

- By late-April, the caterpillars start to become solitary and feed alone in the open
- Most will be jet black but some may have pale grey marbling
- When full-grown they are 26 to 30mm long



full-grown caterpillar (light)

