

Managing land for the Netted Mountain Moth

Ensuring the long-term survival of the Netted Mountain Moth, as with many other species, is probably more likely if sites are linked, enabling an exchange of adults between neighbouring colonies. The loss of suitable habitat can be damaging by making the surviving populations more fragmented and thus isolated.

The precise habitat requirements are not fully understood, however, the following general principles should benefit the Netted Mountain Moth.

The fortunes of the Netted Mountain Moth are directly linked to the presence of extensive areas of bearberry (*Arctostaphylos uva-ursi*). Bearberry favours dry or gravelly soil and can be locally abundant on the drier moorland characteristic of the eastern and central Highlands. This habitat is often referred to as "Arctostaphylos heath".

If *Arctostaphylos* heath is not burnt, then bearberry can become scarce as heather slowly dominates. In the absence of controlled burning, bearberry can maintain its presence on disturbed ground, especially steep slopes, track and verge sides or in more exposed conditions usually at higher altitudes under natural erosion. However, it is thought that the Netted Mountain Moth does not favour these more exposed sites.

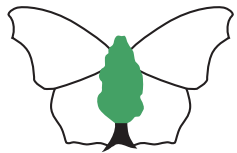
Some Netted Mountain Moth sites have been lost due to afforestation, whilst over-grazing by sheep and/or deer, and both uncontrolled and a cessation of burning can also be detrimental. Good muirburn practice that creates a patchwork of small burns on a 7-10 year cycle is beneficial, and on some sites essential. Light grazing may also be desirable giving bearberry an advantage over heather.

May 2004



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learn about the Netted Mountain Moth



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This leaflet was funded with support from Butterfly Conservation's Development Board

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Registered in England No. 2206468 - Registered Charity No. 254937

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In the UK the day-flying Netted Mountain Moth occurs only in the central and eastern Highlands of Scotland where it is on the wing anytime from late April through until early June. Its caterpillars only feed on bearberry where this grows in extensive carpets. The name Mountain does not reflect its true haunts as the majority of populations occur at moderate altitudes, primarily between 200-600m (600-1800ft). The UK government has listed the Netted Mountain Moth as a UK Biodiversity Action Plan Priority species, in need of urgent conservation action.



Caterpillar on bearberry



Muirburn helps the Netted Mountain Moth



Bearberry



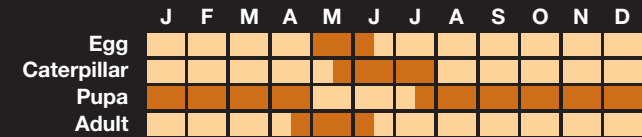
Netted Mountain Moth showing underwing pattern

an under-recorded moth?

The distribution of the Netted Mountain Moth *Macaria carbonaria* is centred on the Cairngorms with outlying sites in Moray, Easter Ross, around Loch Rannoch and northern Perthshire. Despite few recent records it is believed to be widespread but under-recorded, due to the remoteness of its habitat. On the continent it occurs in Sweden, Finland and Norway, as well as the mountains of central Europe south to the Alps and eastwards through Russia to north-east Siberia.



Female Common Heath



Life-cycle of the Netted Mountain Moth

Early stages

Like many caterpillars, those of the Netted Mountain Moth are green, but with a distinctive purple patch at their rear end and thin, incomplete, whitish-lines on their back and flanks. Being in the family *Geometridae* it is a "looper" caterpillar, with legs at both ends but none in the middle. It therefore walks with a characteristic "cartoon" gait, arching the centre of its body in a loop as it inches along.

The sole foodplant of the Netted Mountain Moth is bearberry, an evergreen shrub with a creeping, prostrate, habit that often forms extensive mats. The timing of the moth's life-cycle enables its caterpillars to feed on the freshest young leaves and shoots of the new season's growth. They feed at night, resting on the underside of the leaf during the day, readily dropping to the ground if disturbed.

Adult moth

The life-cycle of populations on more sheltered and lower sites begins several weeks before those on higher or more exposed ground. The Netted Mountain Moth, therefore, has a short but extended flight period and can be found on the wing anytime between the end of April and early June.

The Netted Mountain Moth is a small to medium-sized moth whose sexes are similar. The males have lightly feathered antennae, whereas those of the female are more thread-like. Both sexes fly in sunshine, but on windy days they walk or make short hopping flights just above the vegetation. The Netted Mountain Moth's dark colouration probably allows it to readily absorb heat from the weak and irregular Highland spring sunshine. This possibly enables the adult to become active quickly in short spells of sunny weather.

The adults visit several species of moorland flowers to feed on nectar, including the pink-tinged flowers of its caterpillar's sole foodplant, bearberry. The Netted Mountain Moth over-winters as a pupa from August to April, in a cocoon on the ground amongst mosses, lichens and plant debris. It is just one of several bearberry specialists, including the day-flying Small Dark Yellow Underwing moth.

Recording

A butterfly net is useful when surveying this species. This will aid positive identification and reduce the frustration of tantalising views of dark-coloured moths in flight.

Care should be taken not to confuse the Netted Mountain Moth with the slightly larger Common Heath that shares the same upland haunts, flight period and day-flying habits. The Common Heath comes in different colour hues including brown, white and grey. All females, and males of the darker grey forms can be very similar to the Netted Mountain Moth. Common Heath caterpillars, however, are not as fussy and feed on most types of heather. It is, therefore, more frequently encountered and occurs on virtually all moorlands in Scotland.

Size bars: actual size
Adult (wing span)
 23-25mm (just under 1in)

Caterpillar (fully grown)
 20-22mm (around 3/4in)

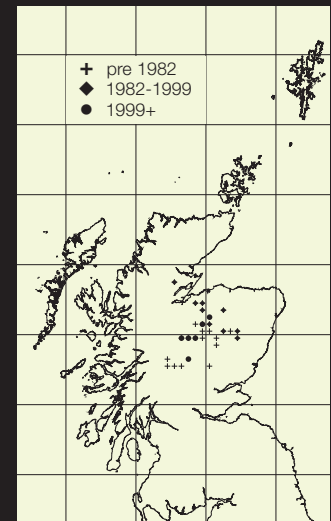
Do you have Netted Mountain Moth on your land?

If you have the right habitats for the Netted Mountain Moth on your land we are happy to provide free detailed advice on suitable management.

Do you want to get involved?

We need your help to undertake survey work to establish the true distribution of the Netted Mountain Moth in Scotland. If you want to help or have seen Netted Mountain Moth we would like to know.

If you can help us with either of the above please contact us: details on the back page.



Distribution of the Netted Mountain Moth