

Moths Count *(Based on an article on the Butterfly Conservation website)*

Moths are declining in the UK. Studies have found the overall number of moths has decreased by 28% since 1968. (And anecdotal evidence suggests that the decline was well under way by then). The situation is particularly bad in southern Britain, where moth numbers are down by 40%. Many individual species have declined dramatically in recent decades and over 60 became extinct in the 20th century.



Sadly, among the species which have declined are many beautiful moths which were previously very common and frequently seen in our gardens. These include the Garden Tiger and its familiar 'woolly bear' caterpillar (down 92% since 1968), the pink-striped Blood-vein (declined by 73%), the elegant White Ermine (decreased by 70%) and the V-moth (down by 99%)! Many other moths formerly common in a range of habitats, including farmland and woodland, have also shown similar large losses. *(Ed: It is worth noting that the first three of these moths are still quite common in Pembs)*

These alarming decreases in moth populations are not just bad news for the moths themselves, but also have worrying implications for the rest of our wildlife. Moths and their caterpillars are important food items for many other species, including amphibians, small mammals, bats and many bird species. Moth caterpillars are especially important for feeding young chicks, including those of most familiar garden birds such as the Blue Tit and Great Tit, Robin, Wren and Blackbird. A serious decline in moth numbers could have disastrous knock-on effects for all these wildlife species. Already, research has indicated that a decrease in the abundance of bats over farmland is related to the decline in the moths that they depend on. Cuckoos may also have been affected. They specialise in eating hairy caterpillars, which most other birds avoid, and it has been suggested that the drop in our Cuckoo population may be linked to the decline in moth caterpillars like those of the Garden Tiger.

It is not clear what is causing the downward trend in our moth numbers. More research is needed to understand what is happening. However, the loss of habitats resulting from more intensive agriculture, commercial forestry, industry and urban development are likely to be major reasons. Other things which may be causing problems for moths include changes in the way we manage our gardens, pesticides, herbicides and light pollution. *(Ed: Surely pesticides rate higher than this in the list - after all, their intention is to kill insects!)* Climate change is also affecting moths. Whatever the causes, the decrease in moth numbers is a warning to us that all is not well with our environment.

We know all this because of the Rothamsted Moth Trap study which has been co-ordinating a national network of moth light-traps since 1968. All the traps are of a standard design, making direct comparison possible between sites and over time. The traps operate every night of the year and all moths are identified and counted. Rothamsted traps catch small but representative numbers of moths, which ensures that the monitoring is effective without damaging the moth populations being studied.

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