



Pale coloured, speckled peppered moth



Dark coloured peppered moth



Pale and dark coloured peppered moths on silver birch tree trunk





Peppered moths rest on silver birch tree trunks with their wings outstretched, this behaviour can make them easy prey for birds. Originally the peppered moth was only recorded in the paler speckled form, but during the industrial revolution in the UK (about 200 years ago) dark coloured peppered moths started to be recorded.

Whilst the numbers of the dark form of the peppered moth increased dramatically, the paler speckled form became scarce in some areas. However, in more recent times the numbers of the dark form have declined relative to the pale form.

Watch the videos and read the information about the peppered moth on ARKive (<u>www.arkive.org/peppered-moth</u>) to try and answer the following questions:

- 1. Why was the original form of the peppered moth pale and speckled? What advantages did this bring to the species whilst resting on tree trunks?
- 2. What happened during the industrial revolution which allowed the darker moths to evolve and increase in numbers? What advantages did the darker moths now have?
- 3. What happened in 1964 which resulted in the decline in the darker form of the peppered moth?
- 4. What types of factors have influenced the evolution of the peppered moth in the last 200 years? Why was the evolution of this species so fast?

The peppered moth is a 'model' for natural selection. The use of models is important in modern scientific investigation, they help scientists to investigate their theories and prove whether they are right or wrong. In the case of the peppered moth, their evolution by natural selection has helped scientists to prove Darwin's original theory.

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