

Andrew Bladon "How hot is that Butterfly" (19th January 2023)

On 19th January the first indoor meeting was a talk by Andrew Bladon "How hot is that Butterfly" It was attended by 17 members and six more on Zoom. Andrew asked how do butterflies respond to temperature change? Butterflies have a good mix of generalists and specialised species which make them a good group to study.

Some animals can respond to Climate Change better and are able to make use of new opportunities better than others. This country is likely to gain more species than it loses as due to populations ds moving north.

How do individuals respond to temperature change? The method of survey was to catch the butterfly and measure its temperature and the air temperature. It was found that butterflies, such as Large White, had small body changes in temperature with air temperature. But Painted Ladies the body temperature followed the air temperature, whereas the Duke of Burgundy butterflies have a wide range of body temperatures to air temperatures so do not buffer their temperature well.

Butterflies regulate their temperature by seeking out suitable micro-climates and by having their wings open or closed. Specialist butterflies tend to decline where generalists are increasing..

Doing the same temperature measurements with caterpillars it was found that caterpillars track the air temperature more closely.

Andrew than spoke about experiments to manage and create suitable micro-climates in two Bedfordshire by creating E shaped banks facing in different directions at Tottenhoe SSSI and Pegsdon Hills. Data is still being collected.

The talk highlighted the importance of managing wildlife sites, not just for a mixture of terrain but with a mixture of different temperatures: having colder and warmer areas helps species such as butterflies to move around a site and adapt better to global warming.