

Adapting to a Warmer Climate - #Fridays for Future

This February was the warmest since records began. England, Scotland and Wales all recorded the warmest February day as well as the warmest winter day. In London at Kew Gardens, 21.2C was recorded on 26th February – which is also now the UK record.

Unseasonably warm weather feels good on one level but on another it's disturbing - we know it shouldn't be happening. The climate is changing faster than predicted and the Met Office records show that, in the UK, the top 10 warmest years on record have all occurred since 2002. Warming air temperature may not seem like such a problem but along with warming sea temperature it causes turbulence in world wide weather systems that leads to local extreme weather events - extreme cold spells, rainfall and flooding as well as extreme heat and drought.



Photograph: Dennis van de Water

In the past few years warmer winters that have often been followed by a freezing cold start to spring. This year the weather in February was unprecedented and could cause a crisis for wildlife. Warm weather in winter encourages some birds to nest early but if it's followed by extremely cold spring months they can get caught out and struggle to find enough food for themselves and their young. The same applies for butterflies, bees and other insects that come out of hibernation too early, sudden cold weather can kill off early flowering plants which are a source of nectar and an exceptionally cold spring like that in 2018 makes it hard for emerging hedgehogs to survive.

Some species are able to adapt to the early arrival of spring. In Wytham Woods in Oxford, a great tit study has been running since 1947 making it one of the longest single species studies in the world. Wytham Woods is an ancient woodland, dating back to the last Ice Age, and one of the most researched woodland areas in the world. For more than 70 years scientists have been studying the behaviour and breeding biology of great tits, using Wytham Woods as an ecological laboratory. Their research data shows that great tits are able to control the timing of egg laying to coincide with emerging oak tree buds so that chicks hatch at the same time as their favourite food – the Winter moth caterpillars that feed on oak leaves. Chicks need thousands of caterpillars in the few weeks that it takes for them to fledge so if early spring weather turns very cold and wet, caterpillars won't survive and neither will the chicks.

Scientists agree that the average global temperature has increased by around 1°C. In 2009, the year of the Copenhagen Climate Summit, the figure was .8°C. So the climate has warmed .2°C on average in the past decade. If it continues to warm at that rate we could reach 1.5°C by around 2050. That is the limit that the Intergovernmental Panel on Climate Change (IPCC) has calculated we need to sustain to avoid catastrophic weather events and sea level rise that climate breakdown will cause.