Butterfly Conservation
Saving butterflies, moths and our environment

United Kingdom
Butterfly Monitoring Scheme

Butterfly revival dashed by wet, gloomy weather

Two declining butterflies suffered their worst year on record in 2017 after hopes of a butterfly revival were dashed by a chilly snap in spring and a gloomy, wet summer, a study has revealed.

Grayling and Grizzled Skipper recorded their lowest numbers since records began as difficult weather conditions caused problems for some of the UK's species.

There had been hopes that UK butterflies would bounce back after the summer of 2016, the fourth worst on record.

And although butterfly numbers last year were up on 2016, they were still way below average with 2017 being the seventh worst year on record, the annual UK Butterfly Monitoring Scheme (UKBMS) led by Butterfly Conservation, the Centre for Ecology & Hydrology (CEH), British Trust for Ornithology (BTO) and Joint Nature Conservation Committee (JNCC) revealed.

Grizzled Skipper and Grayling had their worst year on record for the second year running. Grizzled Skipper was down 9% compared to 2016 and the population has now more than halved since the 1970s. Grayling declined by 6% compared to 2016; its numbers have shrunk by 63% over the last decade.

The threatened Dingy Skipper saw numbers fall by 22% compared to 2016 and the rare Marsh Fritillary experienced a decline of 12% over the same period.

But it wasn't just rare species that struggled – the Large White one of the UK's most well-known and widespread butterflies - saw its numbers tumble by 19%. This common butterfly is now also in a state of long-term decline.

There had been hopes for a good butterfly year as many spring species emerged earlier than usual following a warm start to 2017. Butterflies need warm, dry weather during their flight periods in order to feed and mate.

But a cold snap at the end of April saw other spring species such as the Grizzled Skipper and Duke of Burgundy struggle.

The second half of the summer was cloudier and wetter than average which caused further problems for species already struggling from a combination of habitat loss and climate change.

The other two common white butterflies also had a poor year. Small White was down 16% and Green-veined White down 2%.

But many species did enjoy a better year than 2016.The widespread Red Admiral was up 78% compared to 2016 and Comma numbers rose by 91% compared to 2016. Both species are increasing over the long term.

The warm start to the year helped some spring butterflies such as the threatened Pearl-bordered Fritillary whose numbers rose by 57% compared to 2016. This is a species that has also benefitted from targeted conservation work.

The rare White Admiral bounced back following a terrible 2016 with an annual increase of 157%. Small Copper was up 28% compared to 2016 after a series of poor years and had its best year on record in Northern Ireland.

Professor Tom Brereton, Associate Director of Monitoring at Butterfly Conservation, said: “There is little comfort in these results for the UK’s hard-pressed butterflies.

“2017 was the seventh worst in the 42-year series and makes it five below average years in a row. On the positive side, there is much good conservation work happening across the country, which will aid any recovery should we get a helping hand with the weather.”

Dr Marc Botham, Butterfly Ecologist at the Centre for Ecology & Hydrology, said: “The weather can have a serious impact on individual species’ numbers each year as results from counts in 2017 show.

“However, populations can and do bounce back providing suitable habitat is available, and it is the long-terms trends, particularly the declines of a number of common and widespread species, which are of great concern.”

Sarah Harris, Breeding Bird Survey (BBS) National Organiser at the British Trust for Ornithology, said: “Huge thanks to the hundreds of volunteers who persevered with their butterfly counts and contributed to this valuable dataset. As well as year-to-year changes, the latest results highlight the longer-term differences in fortunes between species, such as the decline in Large White and increases in Red Admirals. We hope the butterflies - and the volunteers - have a much better season this year."

Anna Robinson, Monitoring Ecologist at JNCC said: “It is really important to have long-term studies such as the UKBMS to help us understand changes in species populations, and how we can target action to help reverse declines.

“Whilst we can’t control short-term weather impacts, we can take action to address other factors such as the habitat loss and degradation that are thought to have contributed to long-term negative impacts. In the midst of many negative trends, it is encouraging to see the increase in Pearl-bordered Fritillary numbers as this species has benefitted from targeted conservation work.”

The UKBMS has run since 1976 and involves thousands of volunteers collecting data through the summer. Last year a record 2,693 sites were monitored across the UK.

The scheme is organised and funded by Butterfly Conservation, the Centre for Ecology & Hydrology, the British Trust for Ornithology and the Joint Nature Conservation Committee.

CONTACTS
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Butterfly Conservation is the UK charity dedicated to saving butterflies, moths and our environment. Our research provides advice on how to conserve and restore habitats. We run projects to protect more than 100 threatened species and we are involved in conserving hundreds of sites and reserves.
www.butterfly-conservation.org

The **British Trust for Ornithology** (**BTO)** is the UK’s foremost independent bird research organisation and organises a range of annual and periodic surveys, mainly on birds, and including the BTO/JNCC/RSPB Breeding Bird Survey. Information on population trends in birds and other wildlife are provided on our website (www.bto.org) and you can follow the latest news and developments via twitter @_BTO and @BBS_birds

The Centre for Ecology & Hydrology (CEH) is the UK’s Centre of excellence for integrated research in the land and freshwater ecosystems and their interaction with the atmosphere. CEH is part of the Natural Environment Research council (NERC), employs more than 450 people at four major sites in England, Scotland and Wales, hosts over 150 PhD students and has an overall budget of about £35m. CEH tackles complex environmental challenges to deliver practicable solutions so that future generations can benefit from a rich and healthy environment.

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The Joint Nature Conservation Committee (JNCC) is the statutory adviser to the UK Government and devolved administrations on UK and international nature conservation. Its work contributes to maintaining and enriching biological diversity sustaining natural systems.