

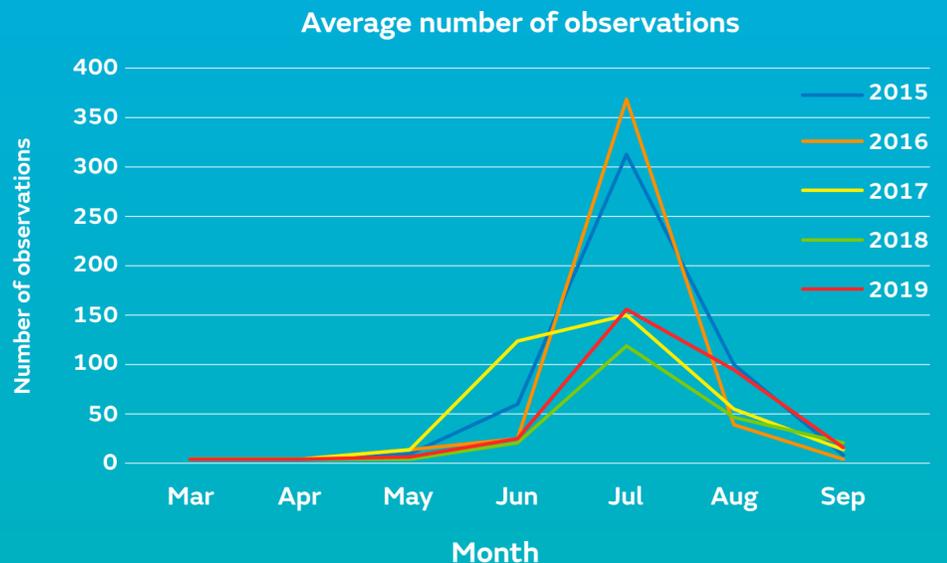
# Butterflies at the Met Office

Volunteers from the Met Office began monitoring butterfly diversity in 2013 then with fortnightly surveys and weekly surveys from 2015. 135 transects have been conducted from 2015 to 2019, and we can now see how butterfly numbers have changed over time.

The graph to the right shows the average number of butterflies and day-flying moths counted on a survey each month.

Every year there has been a peak abundance in July and the record number of butterflies seen was 467 in 2016. The large counts in July 2015 and 2016 were due to exceptional numbers of day-flying six-spot burnet moths in those years. The number of different species counted each year is fairly constant, between 21 and 25.

Due to differences in survey methods, 2013 and 2014 counts have not been included. It is notable, however, that the diversity recorded was much lower, at 17 species in 2013.



## Indicator species

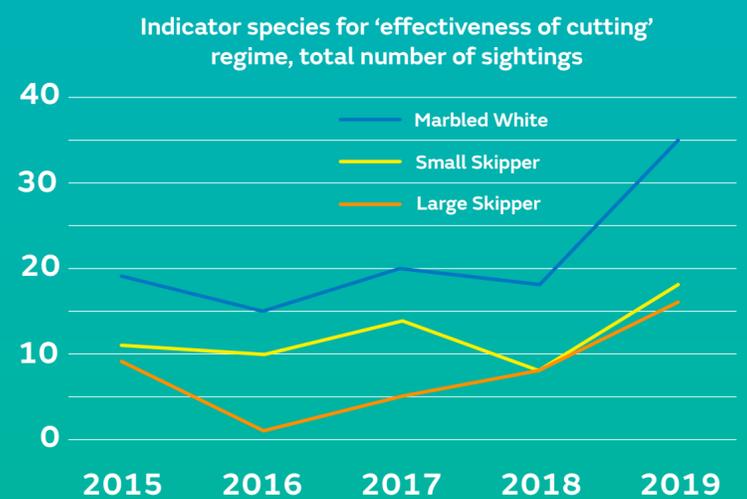
Our **Biodiversity Action Plan (BAP)** aims to increase the biodiversity of flower-rich meadows to support identified 'Species of Principal Importance in England'. One method was to use a biennial cutting regime to support over-wintering larvae of butterflies such as **Marbled White** and **Skippers**. Evident in the graph, all three indicator species saw a dip in 2016 sightings, but have since recovered.



**A Devon BAP indicator species for flower rich meadows - number of sightings has increased from 19 (2015) to 35 (2019).**

**Number of sightings has increased from 11 (2015) to 18 (2019).**

**Number of sightings has increased from 9 (2015) to 16 (2019).**

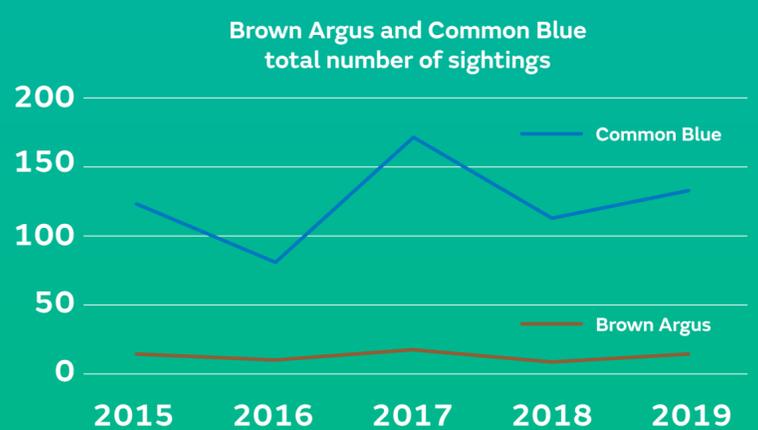


The **Common Blue** is another Devon BAP flower-rich meadow indicator, while the **Brown Argus** also favours meadowland and is somewhat localised to coastal regions in Devon.



**Shows year-to-year variability, with an average 124 sightings for the period 2015 to 2019.**

**Sightings relatively constant, with an average 13 sightings for the period 2015 to 2019.**



## Compared to national trends

The UK Butterfly Monitoring Scheme (UKBMS) issues an annual report outlining butterfly population trends in the UK. Over the last decade, Marbled White numbers have increased significantly, whereas trends for the other species detailed above indicate no significant change. It is positive to see our meadows supporting a wide variety of species year-on-year.

Nationally, the UKBMS Annual Report 2019 shows that the number of sightings of Marbled White, Small Skipper and Large Skipper increased from 2018 to 2019, which agrees with our records. The national sightings of Common Blue and Brown Argus fell, whereas the Met Office site shows steady numbers year-on-year. The pro-active and biennial management of our meadows is likely to be a factor in maintaining our butterfly numbers.

**References**  
Brereton, T.M., Botham, M.S., Middlebrook, I., Randle, Z., Noble D., Harris, S., Dennis, E.B., Robinson A., Peck, K. & Roy, D.B. 2020. United Kingdom Butterfly Monitoring Scheme report for 2019. UK Centre for Ecology & Hydrology, Butterfly Conservation, British Trust for Ornithology and Joint Nature Conservation Committee. This report can be downloaded from <https://www.ukbms.org/reportsandpublications>