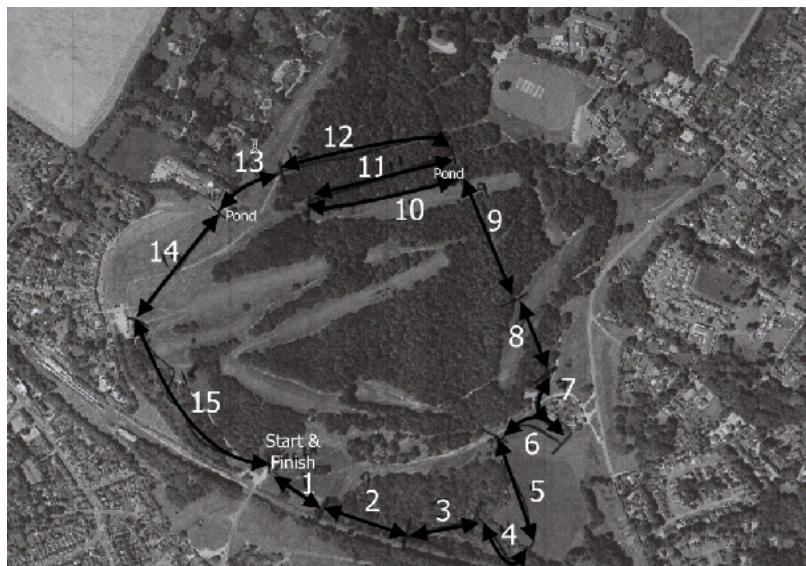


## **Butterfly Monitoring on Chorleywood Common** **2018 - 2023**

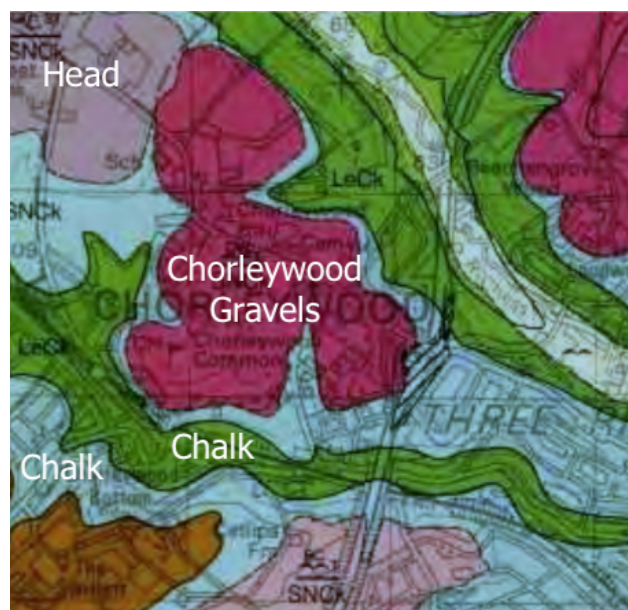
### **Introduction**

This paper is a summary of the trends in butterfly numbers recorded in weekly surveys carried out on Chorleywood Common between 2018 and 2023.

Butterfly monitoring is carried out by a small dedicated group of members of the Hertfordshire & Middlesex branch of Butterfly Conservation and the weekly results are uploaded on to the national website UKBMS. Monitoring takes place between the months of March to October, weather permitting, and is carried out along a transect route. In 2019 the transects were modified slightly to reflect some habitat management changes that were then taking place on the common so that we could detect any impact from these changes. The 15 sections of transects surveyed include chalk grassland, acid heathland, woodland rides, banks and hedgerow habitats. These are shown below:



The Geology of the Common is shown below:



## Chorleywood Common Butterfly Monitoring 2018 - 2023

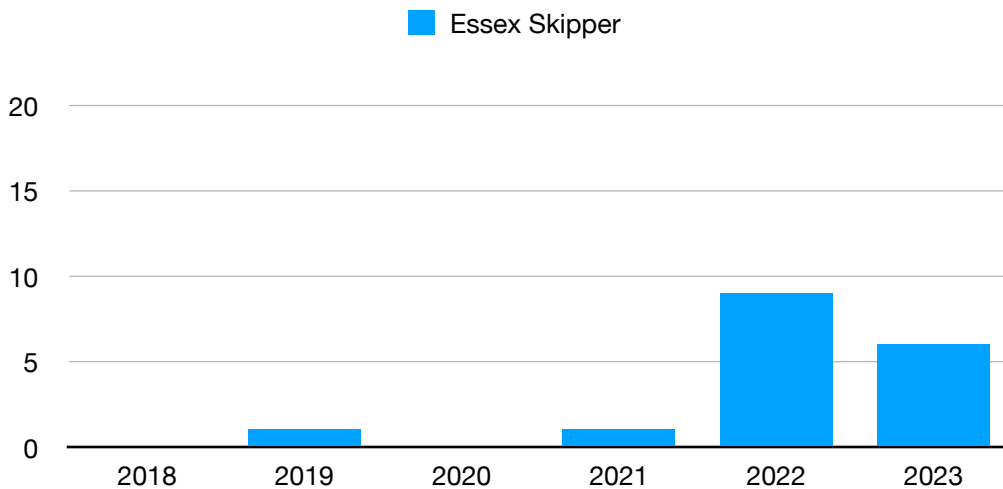
Results from this site go back to when we started monitoring in 2018, so we have got six years of comprehensive results allowing us to start to identify trends and the impact the management of the Common plus weather variations such as the 2022 drought. An analysis of the flora along the transect was carried out in 2019. This information is fed back to the rangers who plan the development of the environment to encourage butterflies and moths; for example the clearing of some areas of the rides and selective grazing by cattle each year. Monitoring then reveals the impact of these measures.

Selective grazing by cattle took place in sections 2, 3, 4 and 5 during the following periods: 2018 Sept - Oct, 2019 July - Nov, 2020 Sept - Nov, 2021 Aug - Nov, 2022 Mar - May, July - Sept, 2023 July - Oct. There has also been some clearing of trees especially in section 2 (Jan - Feb each year except 2018 and 2021) and grass cutting / collecting by a contractor in areas in sections 13, 14, 1, 3, 4 and 5 (Sept - Oct each year except 2022).

During this period results and monitoring have been affected by a number of issues including a COVID lockdown which prevented monitoring in the spring of 2020 from March to May, and climatic issues including extremely hot record breaking drought weather in July 2022 which desiccated many larval food plants and meant that nectar supplies fell very quickly, numerous mild winters, and a cold late winter in 2018 which created delayed emergence and caused low spring numbers.

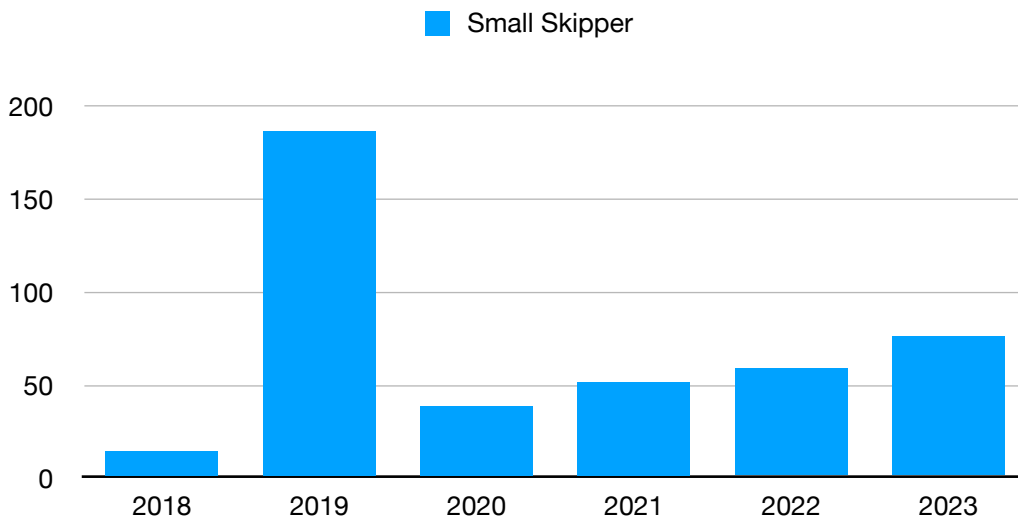
### **Essex Skipper *Thymelicus lineola***

2022/3 mirrors Herts & Middx BC figures which recorded a 50% increase on 2015-2019.



### **Small Skipper *Thymelicus sylvestris***

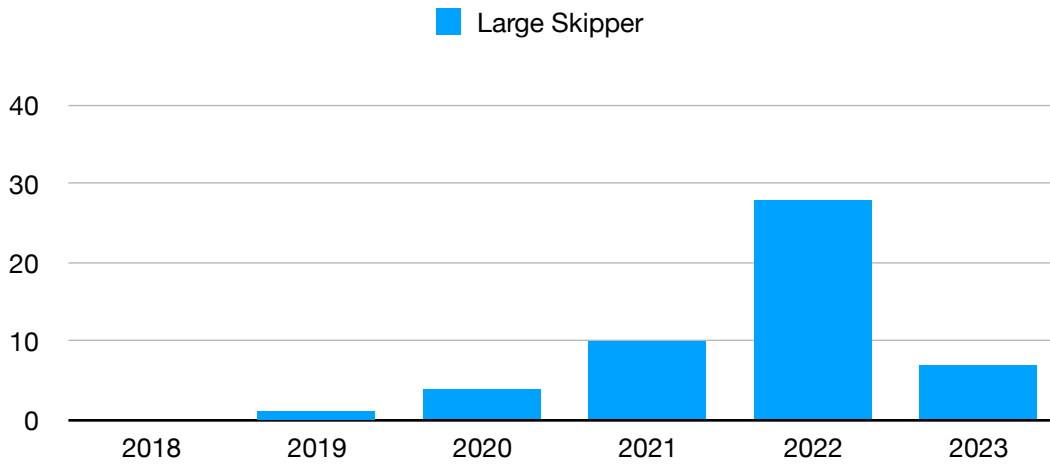
2019 contrasts with Herts & Middx BC figures which recorded an unchanged abundance. The gradual increase mirrors the 35% increase trend noted by Herts & Middx BC.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

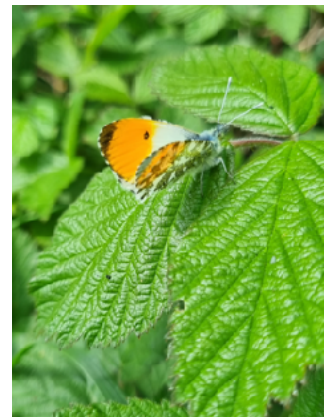
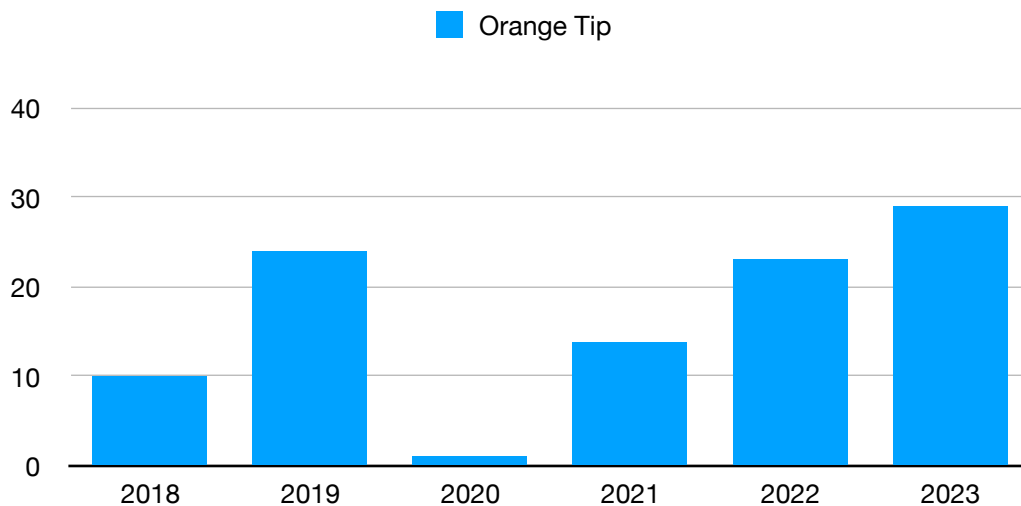
### **Large Skipper** *Ochlodes sylvanus*

2022/3 contrasts with the Herts & Middx BC figure which recorded a 5% reduction on 2015-2019.



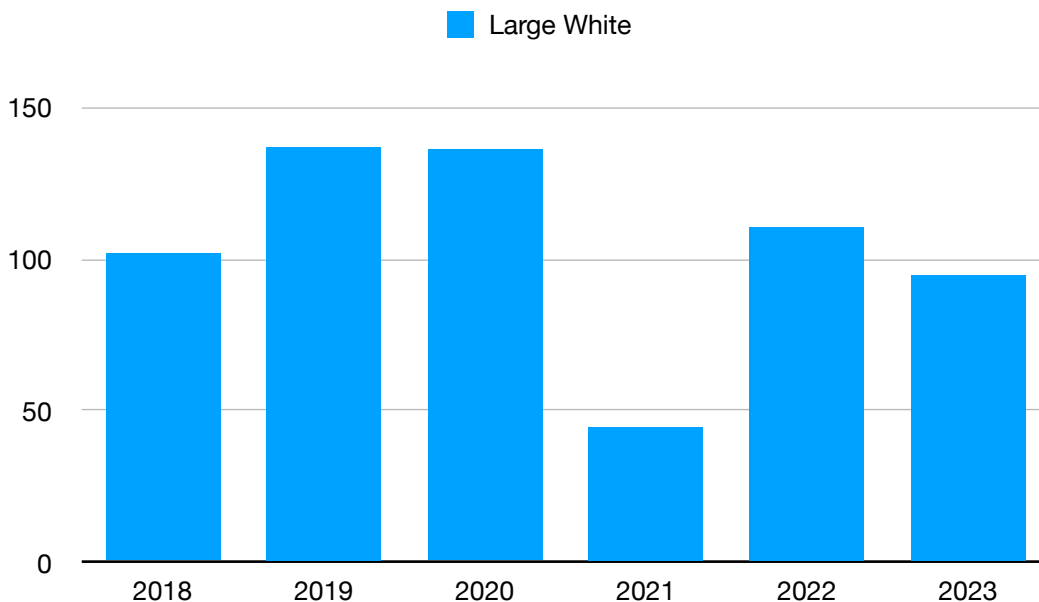
### **Orange Tip** *Anthocharis cardamines*

Note unable to record observations during COVID Lockdown March - May 2020. Gradual increase contrasts with Herts & Middx BC figures which recorded a 30% reduction on 2015-2019.



### **Large White** *Pieris brassicae*

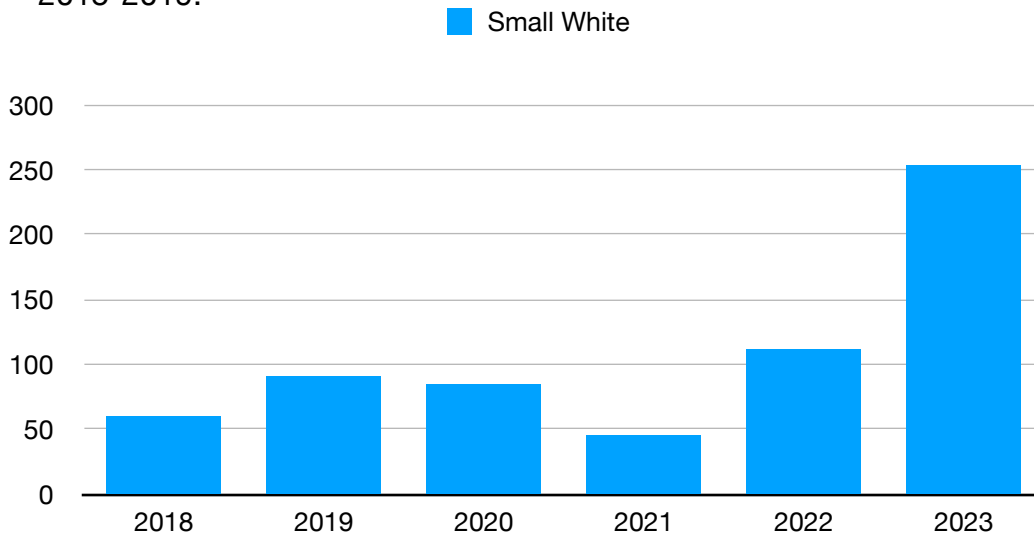
2021 mirrors Herts & Middx BC figures which recorded a 32% reduction.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

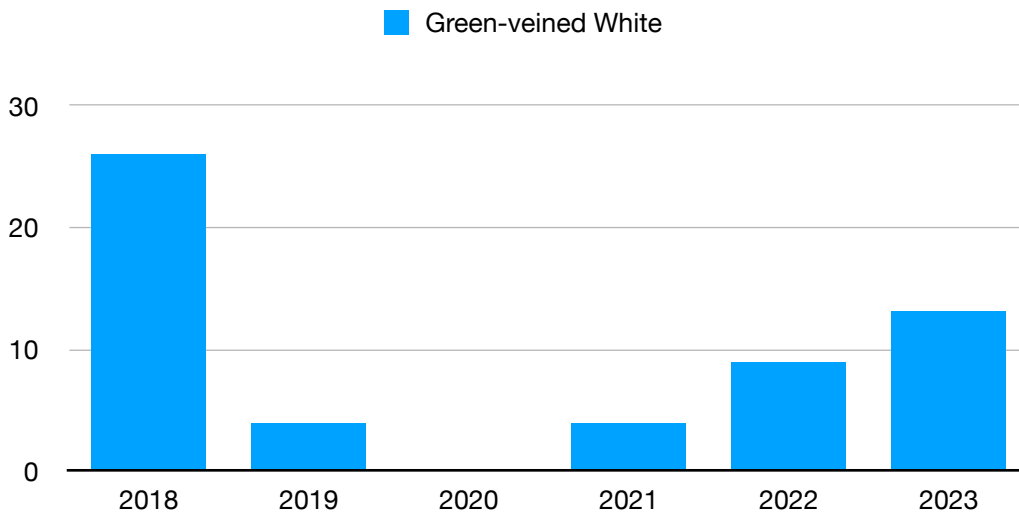
### **Small White** *Pieris rapae*

2023 increase contrasts with the Herts & Middx BC reduction of 11% compared with 2015-2019.



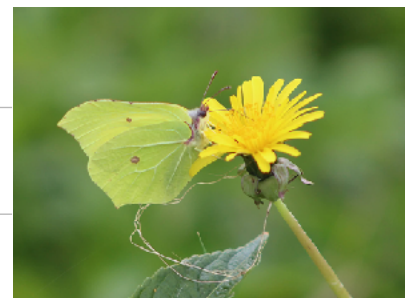
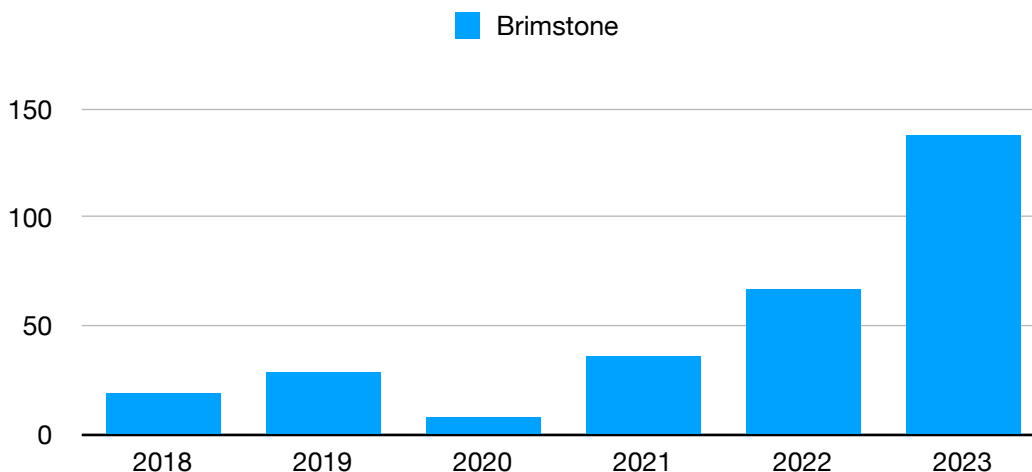
### **Green-veined White** *Pieris napi*

Note unable to record observations during COVID Lockdown March - May 2020. 2018 mirrors Herts & Middx BC figures which show a 20% increase.



### **Brimstone** *Gonepteryx rhamni*

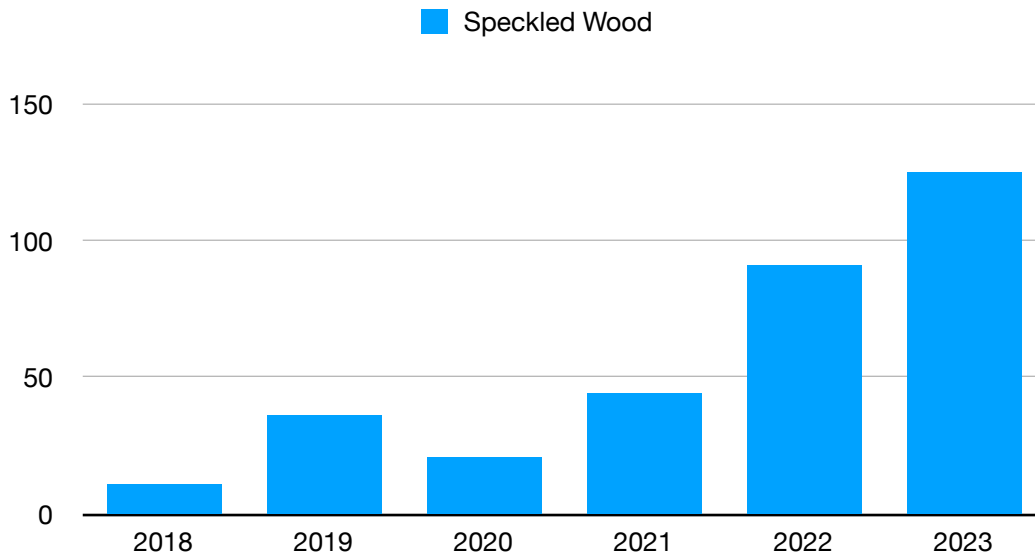
Note unable to record observations during COVID Lockdown March - May 2020. 2023 mirrors the 47% increase for Herts & Middx BC compared with 2015-2019.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

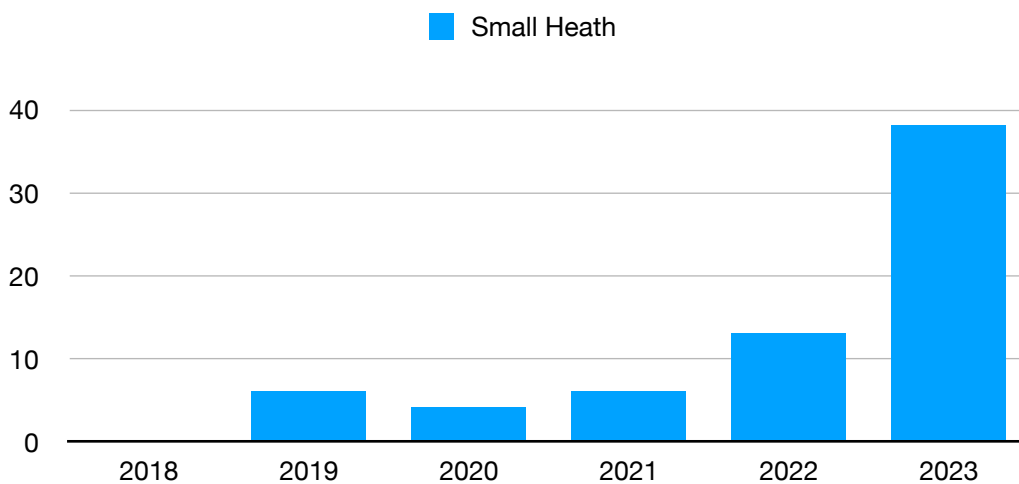
### **Speckled Wood** *Pararge aegeria*

2023 increase mirrors the Herts & Middx BC 16% increase compared with 2015-2019.



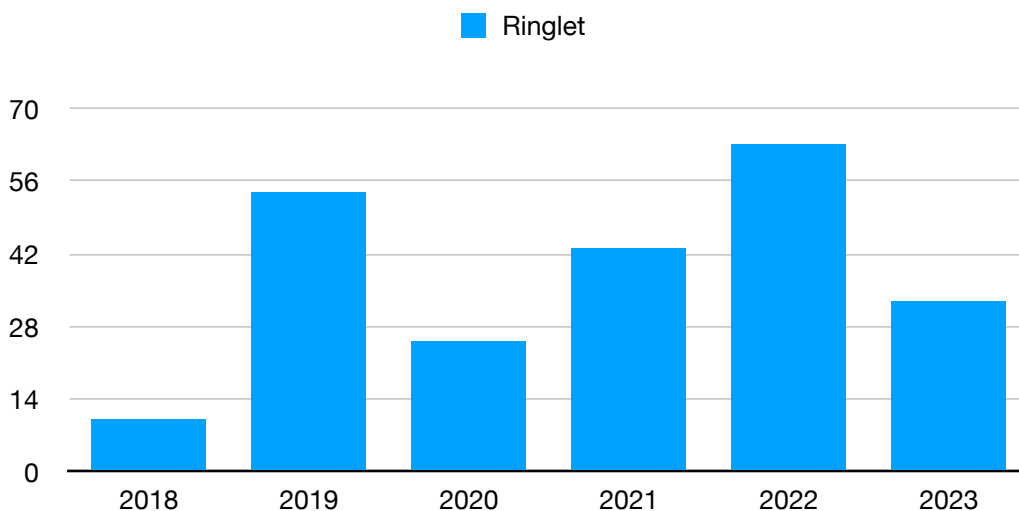
### **Small Heath** *Coenonympha pamphilus*

2023 increase mirrors the Herts & Middx BC 14% increase compared with 2015-2019.



### **Ringlet** *Aphantopus hyperantus*

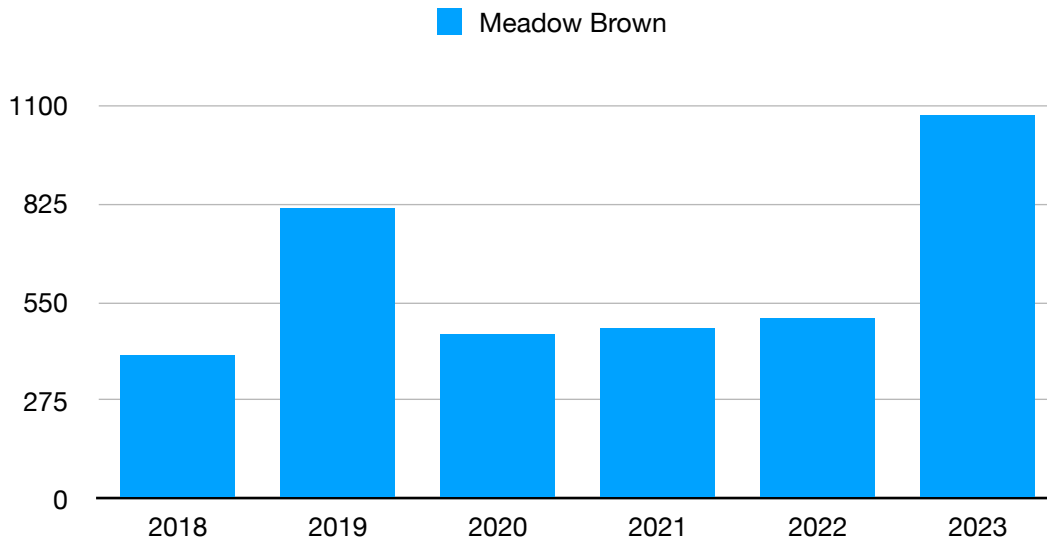
2023 Herts & Middx BC trend shows a decrease of 60% compared with 2015-2019. On Chorleywood Common it is difficult to determine a pattern.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

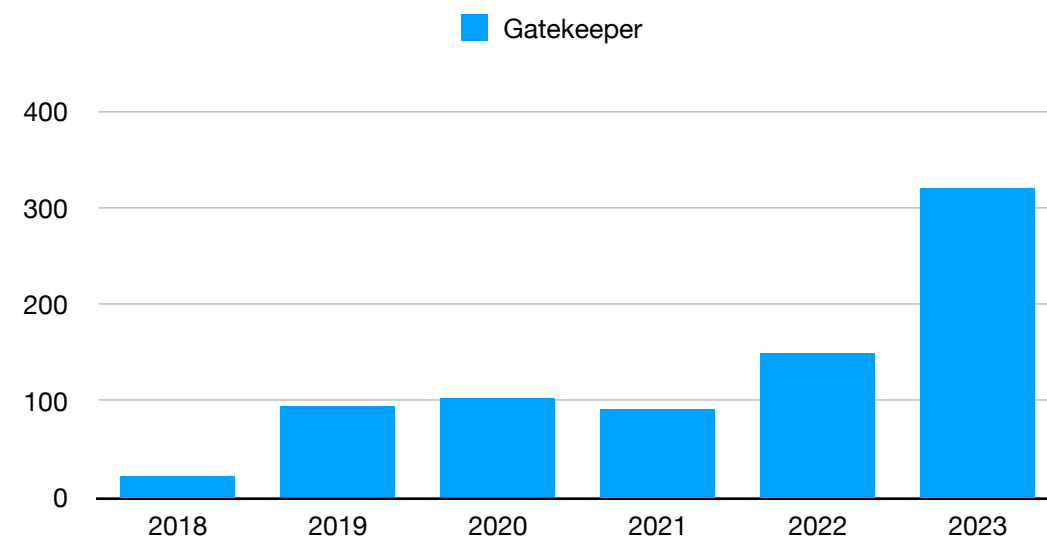
### **Meadow Brown** *Maniola jurtina*

Gradual increase with two particularly good years. 5% increase shown in Herts & Middx BC figures compared to 2015-2019.



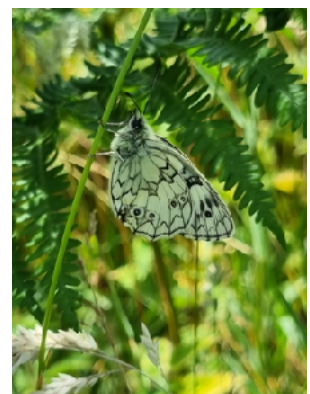
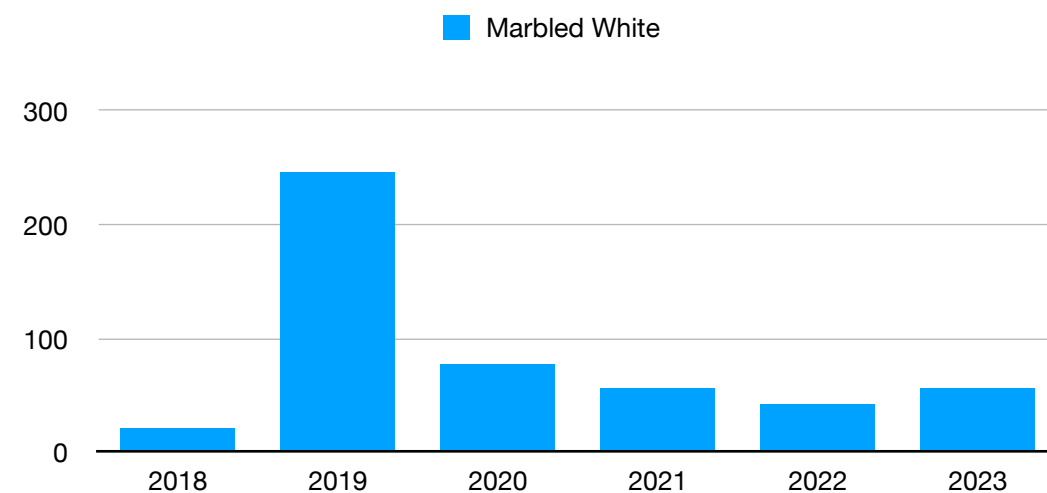
### **Gatekeeper** *Pyronia tithonus*

2023 increase mirrors Herts & Middx BC the 65% increase compared with 2015-2019.



### **Marbled White** *Melanargia galathea*

2019 mirrors the Herts & Middx BC figure which recorded a 20% increase. Otherwise slight decrease; Herts & Middx BC figure down 13% on 2015-2019.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

### **Dark Green Fritillary** *Argynnis aglaja*

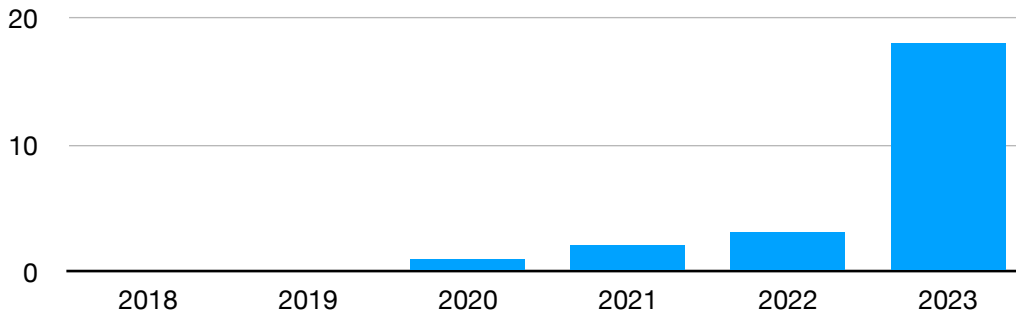
Just one observed in 2022



### **Silver-washed Fritillary** *Argynnis paphia*

An increase on Chorleywood Common compared with a 35% decline in Herts & Middx BC compared with 2015-2019.

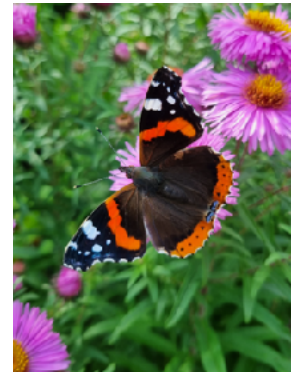
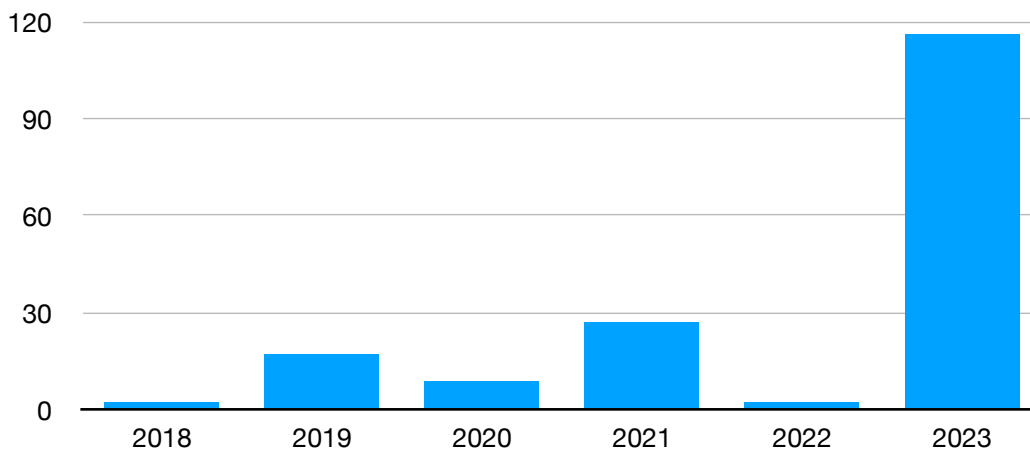
■ Silver-washed Fritillary



### **Red Admiral** *Vanessa atalanta*

2023 huge increase mirrors Herts & Middx BC 400% increase compared with 2015-2019.

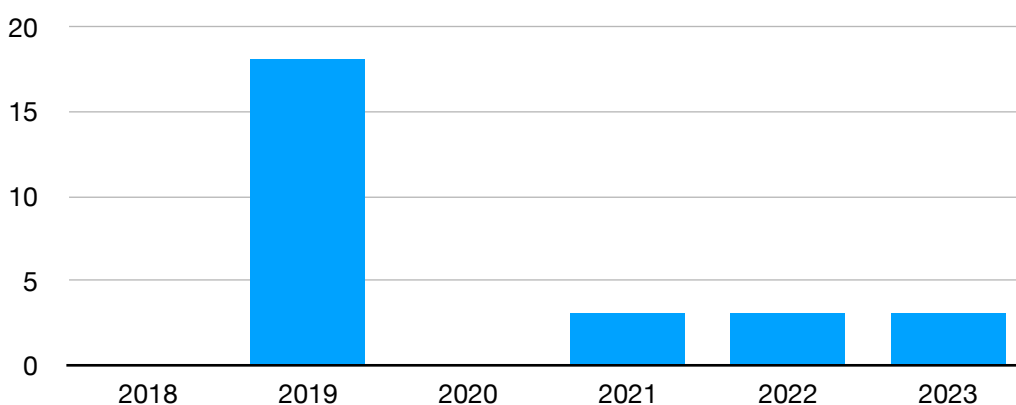
■ Red Admiral



### **Painted Lady** *Vanessa cardui*

2019 mirrors Herts & Middx BC figure which recorded a 125% increase. Otherwise generally steady. Herts & Middx BC record a 45% increase compared with 2015-2019.

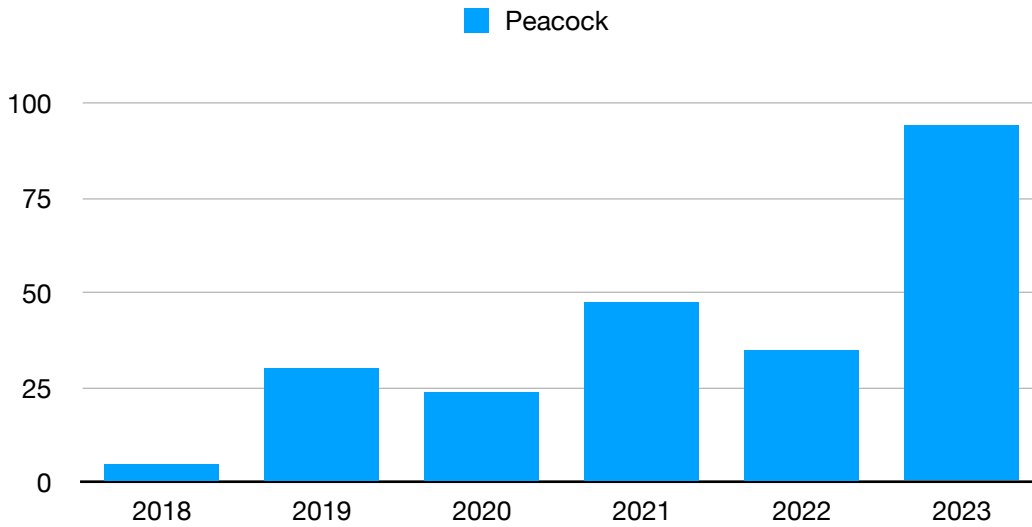
■ Painted Lady



## Chorleywood Common Butterfly Monitoring 2018 - 2023

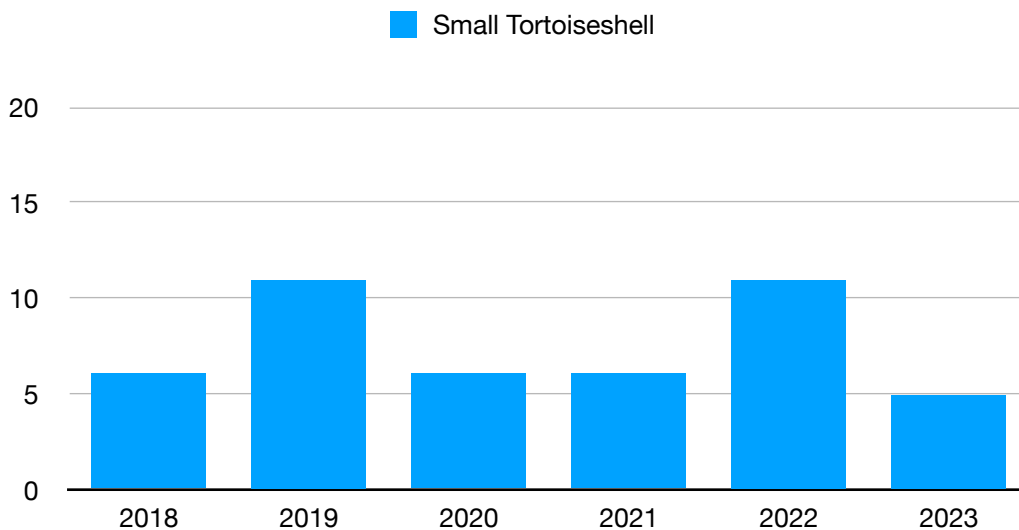
### **Peacock *Inachis io***

Increase on Chorleywood Common mirrors 45% increase recorded by Herts & Middx BC compared with 2015-2019.



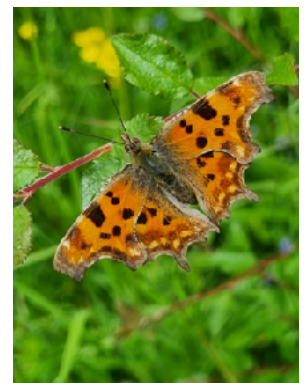
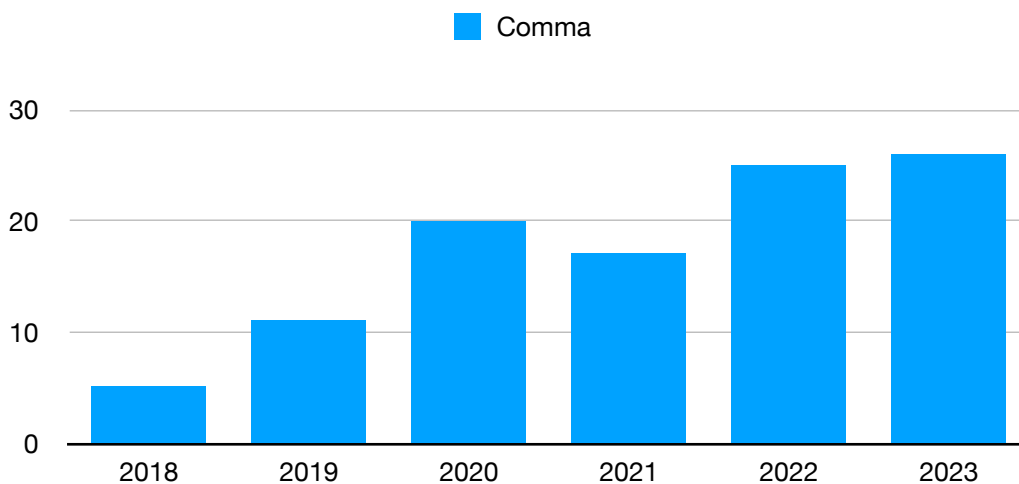
### **Small Tortoiseshell *Aglais urticae***

Down 76% in Herts & Middx BC figures compared with 2015-2019. Quite low numbers on Chorleywood Common.



### **Comma *Polygonia c-album***

Numbers on Chorleywood Common appear to be increasing, Herts & Middx BC numbers are unchanged.

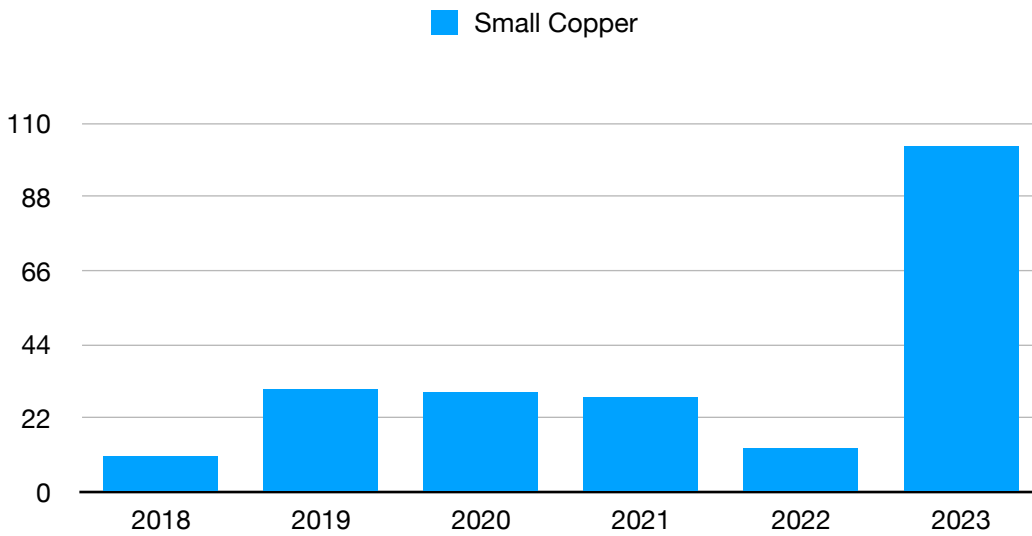




## Chorleywood Common Butterfly Monitoring 2018 - 2023

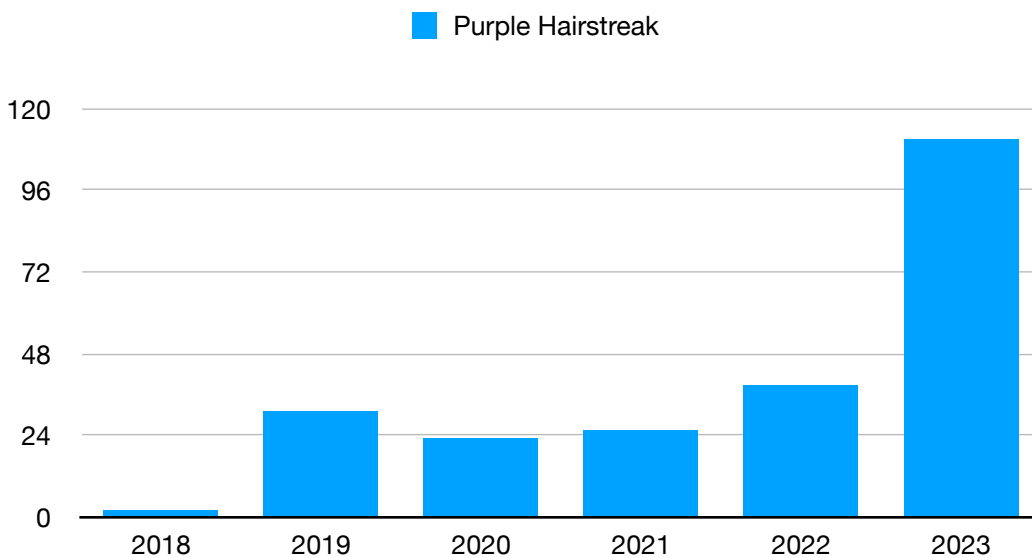
### **Small Copper** *Lycaena phlaeas*

2023 a good year. Herts & Middx BC record a 40% increase compared with 2015-2019.



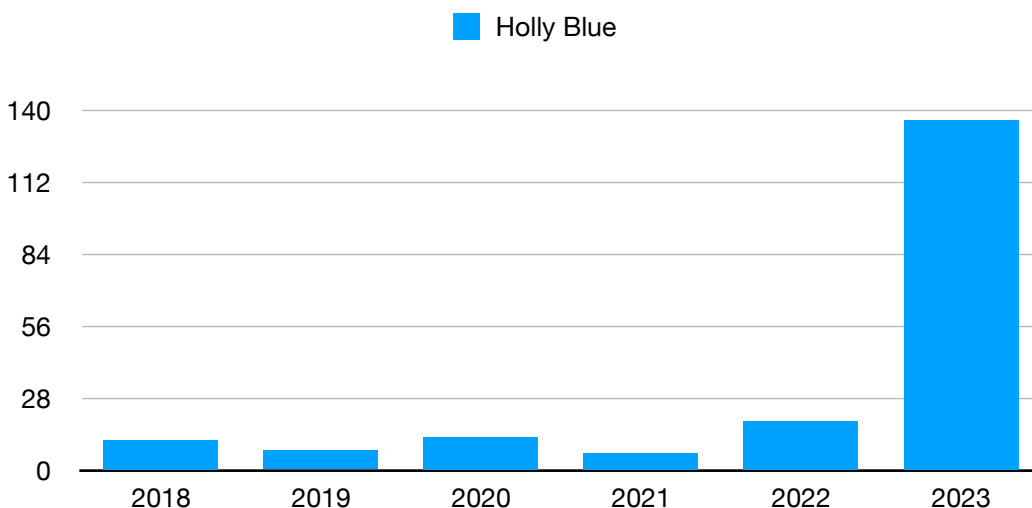
### **Purple Hairstreak** *Neozephyrus quercus*

2023 a good year. Herts & Middx BC record a 70% increase compared with 2015-2019.



### **Holly Blue** *Celastrina argiolus*

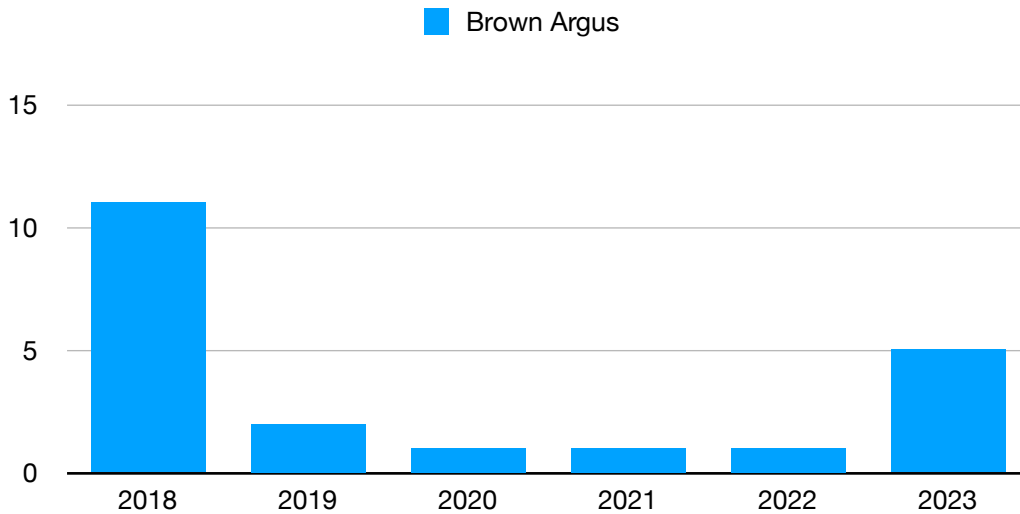
2023 a good year for Holly Blue, Herts & Middx BC record a 123% increase compared with 2015-2019.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

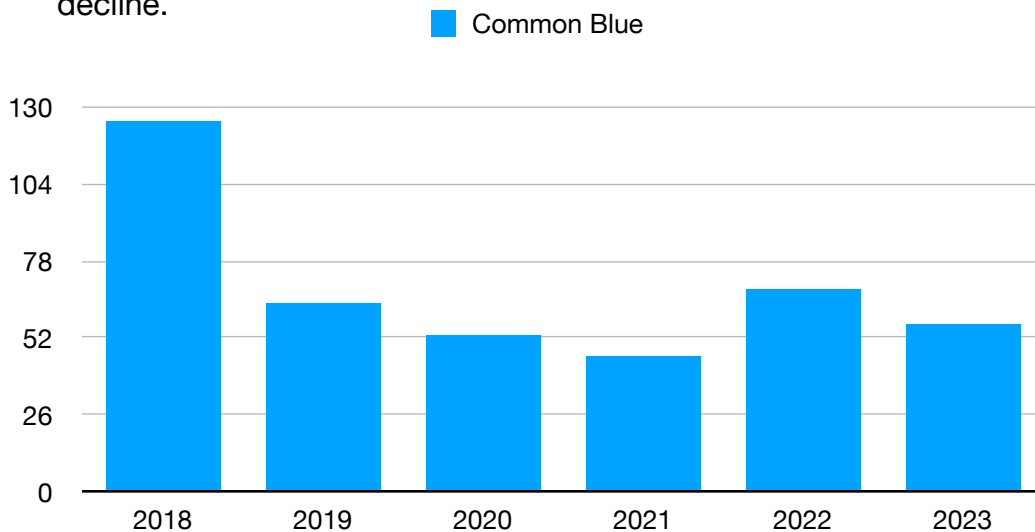
### **Brown Argus** *Aricia agestis*

2018 mirrors Herts & Middx BC figures which recorded a 100% increase. Since then a decline. 2023 appears a better year on Chorleywood Common.



### **Common Blue** *Polyommatus icarus*

2018 mirrors the Herts & Middx BC figures which show a 118% increase. Since then a decline.



### **Moths**

In our surveys we focus on butterflies but occasionally record any sightings of moths that we are able to identify. So there are no comprehensive records of moths.

However, the following have been sighted over our six year period on the Common: Small Purple & Gold, Common Nettle Trap, Box Tree Moth, Mother Shipton, Muslin Moth, Straw Dot, Blood-vein, Burnet Companion, Hornet Moth, Antler Moth, Yellow Shell, Small Yellow Underwing, Large Yellow Underwing, Orange Underwing, Ear Moth, Six-Spot Burnet, Cinnabar, Green Oak Tortrix, Common Carpet, Silver - Y, Jersey Tiger, Oak Tree Processional Moth (caterpillars), Humming Bird Hawk Moth (below) and Forester Moth (below).

**Forester Moth *Adscita statices***

Recorded for the first time in 2022 and 2023 on Chorleywood Common.



**Hummingbird Hawk-Moth (*Macroglossum stellatarum*)**

Recorded in 2023.

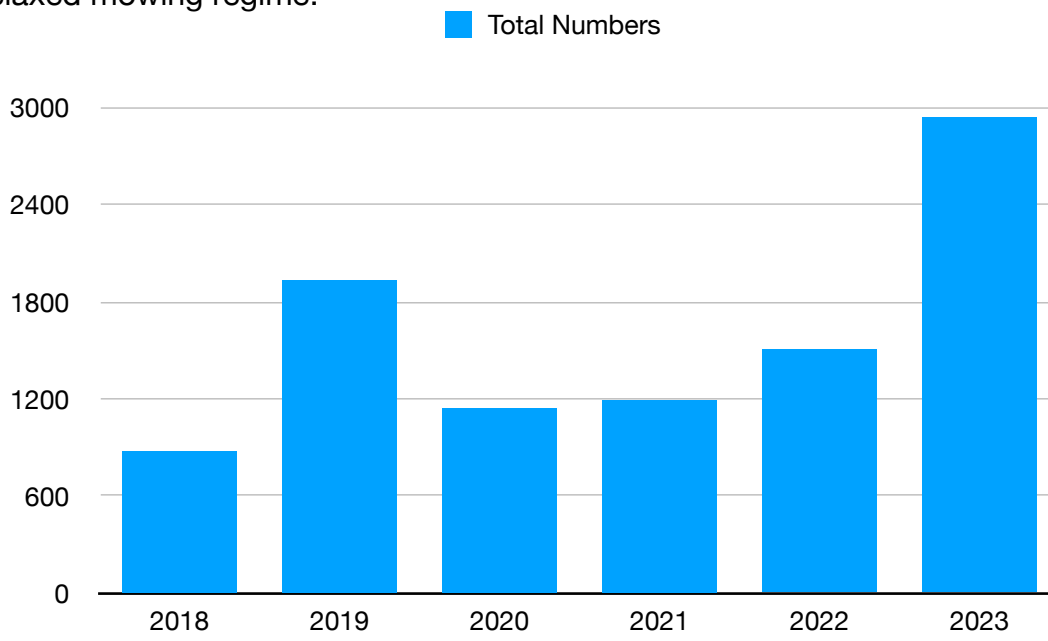


**Overall numbers of butterflies**

Overall this looks a positive picture and possibly suggests that the increase of flora in the meadow areas with table increases in Pyramid Orchids, Harebells and many other flowers might be having an impact on butterfly (and moth) numbers.

However this must be tempered with variations in the frequency of recording (e.g. 2020 COVID restrictions curtailing spring monitoring, plus the change to only inputting one walk a week in 2023 so avoiding the ‘dilution’ of some figures due to averaging by UKBMS), weather variations plus the impact of climate change such as the 2022 extreme heat, a slight change in the transect route in 2019 and the greater familiarity with the transect by the observers (for example the discovery of Red Admirals high up in a tree which may have been missed earlier).

However, despite the limitations there is clearly a positive picture which shows that restoring and improving habitats does have an impact. In particular grassland species have benefited as a result of the conservation grazing and an overall reduction in mowing. Additionally the Silver Washed Fritillaries were not resident on the Common in previous years and this species will have benefited from the woodland edge management which has been undertaken. Therefore, as for the future, it is suggested that the ride-side/ woodland edge management should be continued as well as the low intensity grazing and relaxed mowing regime.



## Chorleywood Common Butterfly Monitoring 2018 - 2023

Data sources:

UKBMS Chorleywood Common Data 2018 - 2023

Hertfordshire & Middlesex Butterfly Conservation annual reports (*in text referred to as Herts & Middx. BC*)

Notes by Philip Gibbs with input from the Chorleywood Common Rangers and Malcolm Hull.

Thank you to our dedicated team of butterfly surveyors; Val Edwards, Irene Oulsnam, Dick Ashford, Chris Hankinson and Philip Gibbs.

Photographs courtesy of Chris Hankinson

March 2024