

Butterfly Monitoring 2023

SDS has monitored butterfly numbers on the site for 9 years. Data from 2015 is too sparse to be of use, but since then it has been possible to process the data in such a way that the overall state of SDS for butterflies can be assessed. This data is displayed in the following histograms. The data is processed by summing species counts over all transects, and all dates. This gives an estimate of the total numbers of each species counted within the Downland Scheme, for each year. A further statistic is produced by calculating the average number of each species over all years except the current year (ie 2016 to 2022), and comparing that average with the number counted this year. This provides an indication of the trend in numbers for each species for this year. This value is displayed as a coloured cell at the bottom of the table.

- Green cell (and upward arrow) – increasing in number
- Yellow cell (and two headed horizontal arrow) – 'holding there own'
- Red cell (and a downward pointing arrow) – decreasing in number

The overall impression is that numbers of butterflies on the SDS is relatively constant from year to year, but that each year there are 'winners' and 'losers' for that year. Thus for 2023 we have:

Winners:

Small Skipper, Speckled Wood, Gatekeeper, Common Blue, Brown Argus, Holly Blue, Red Admiral, Peacock, Small White

Losers:

Essex Skipper, Wall, Marbled White, Ringlet, Adonis Blue, Small Tortoiseshell, Painted Lady, Dark Green Fritillary, Large White, Green-veined White, Orange Tip, Clouded Yellow

No change, or too few to say:

Large Skipper, Dingy Skipper, Silver-spotted Skipper, Meadow Brown, Small Copper, Chalkhill Blue, Small Blue, Comma, Silver washed Fritillary, White Admiral, Duke of Burgundy

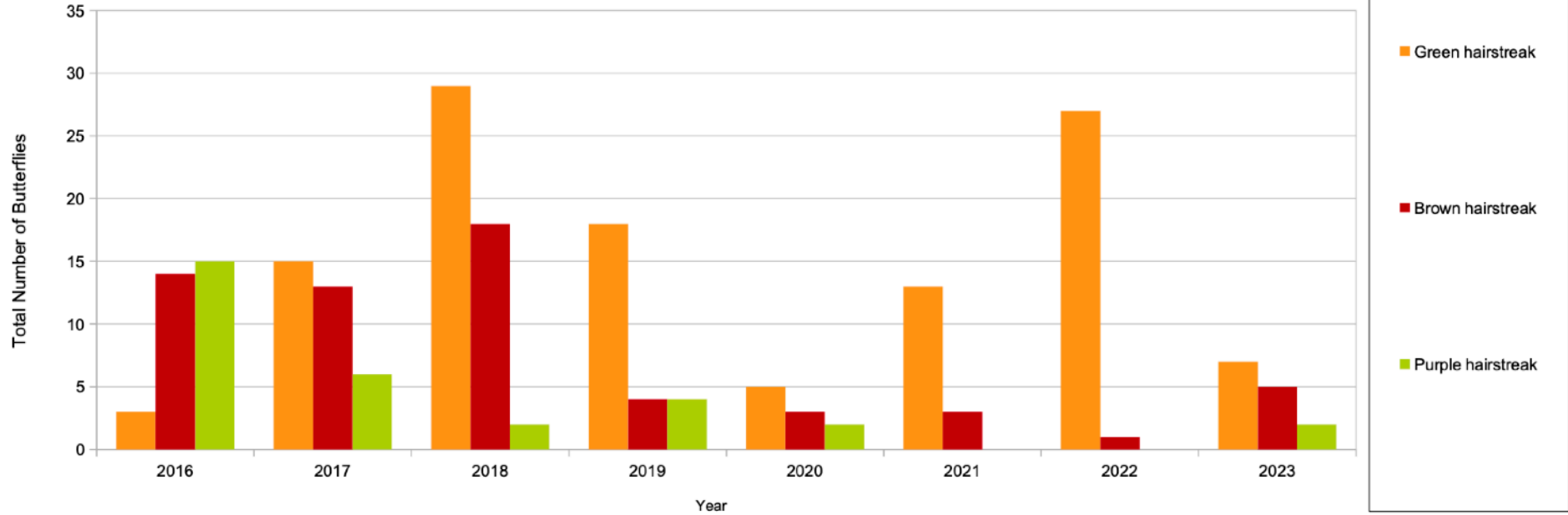
Notes:

Small Skipper and Essex skipper are difficult to tell apart, as are Brown Argus and female Common Blue. I have assumed all identifications are correct in these figures, in which case Small Skippers have increased dramatically this year, as have Brown Argus.

The final piece of processing for the data is to load the counts onto iRecord. As per previous years I have removed the Duke of Burgundy records to avoid disturbance of the site.

Steyning Downland Scheme - Butterfly Counts

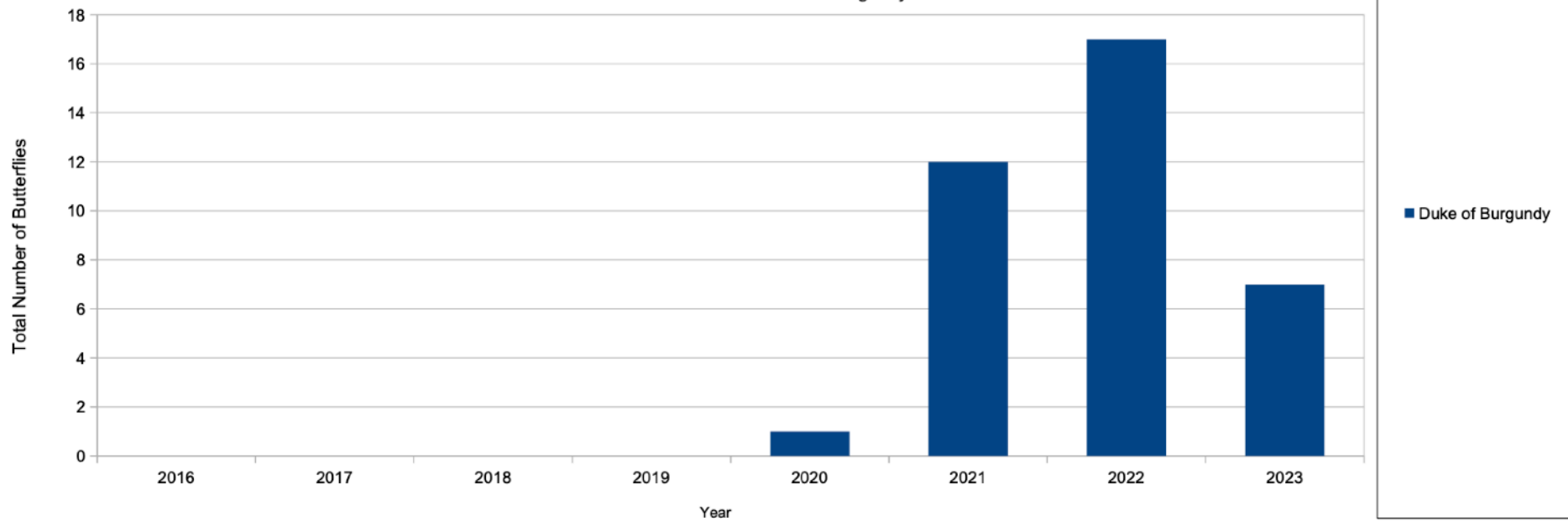
Lycaenidae-Hairstreaks



| No. of Counts | Year | Green hairstreak | Brown hairstreak | Purple hairstreak |
|---------------|----------|------------------|------------------|-------------------|
| 87 | 2016 | 3 | 14 | 15 |
| 83 | 2017 | 15 | 13 | 6 |
| 87 | 2018 | 29 | 18 | 2 |
| 106 | 2019 | 18 | 4 | 4 |
| 93 | 2020 | 5 | 3 | 2 |
| 86 | 2021 | 13 | 3 | 0 |
| 69 | 2022 | 27 | 1 | 0 |
| 75 | 2023 | 7 | 5 | 2 |
| | Mean No. | 18 | 9 | 5 |
| | Trend | ↓ | ↔ | ↓ |

Steining Downland Scheme - Butterfly Counts

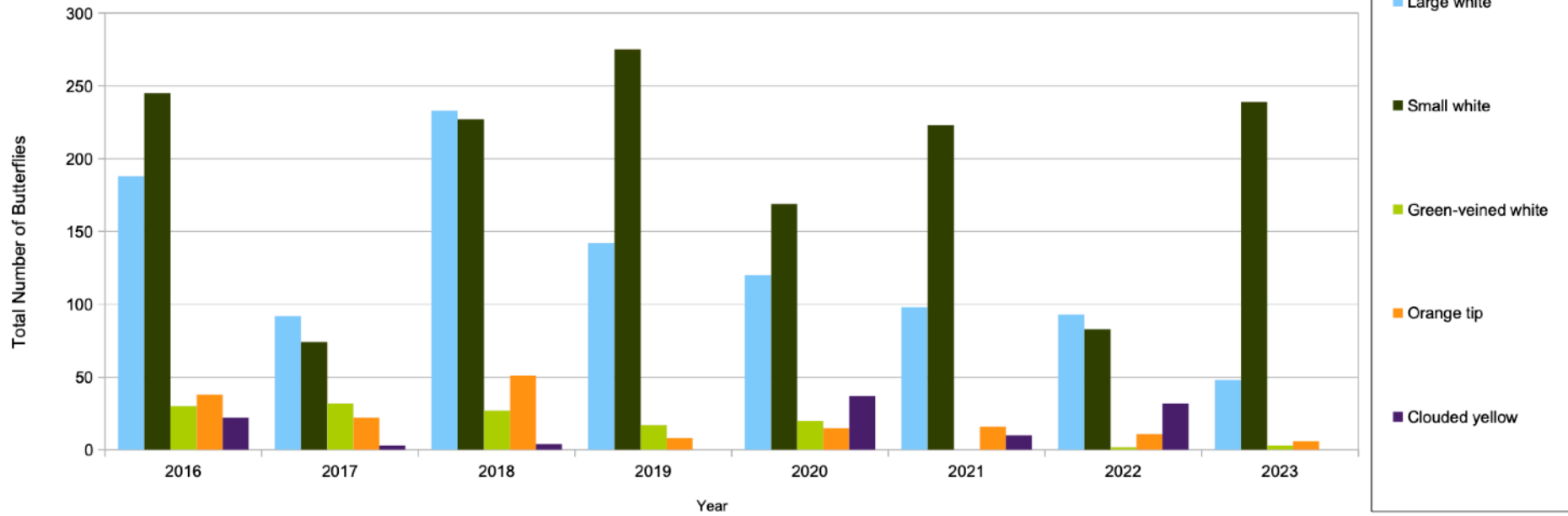
Riodinidae-Duke of Burgundy



| No. of Counts | Year | Duke of Burgundy |
|---------------|----------|------------------|
| 87 | 2016 | 0 |
| 83 | 2017 | 0 |
| 87 | 2018 | 0 |
| 106 | 2019 | 0 |
| 93 | 2020 | 1 |
| 86 | 2021 | 12 |
| 69 | 2022 | 17 |
| 75 | 2023 | 7 |
| | | |
| | Mean No. | 5 |
| | Trend | ↔ |

Steining Downland Scheme - Butterfly Counts

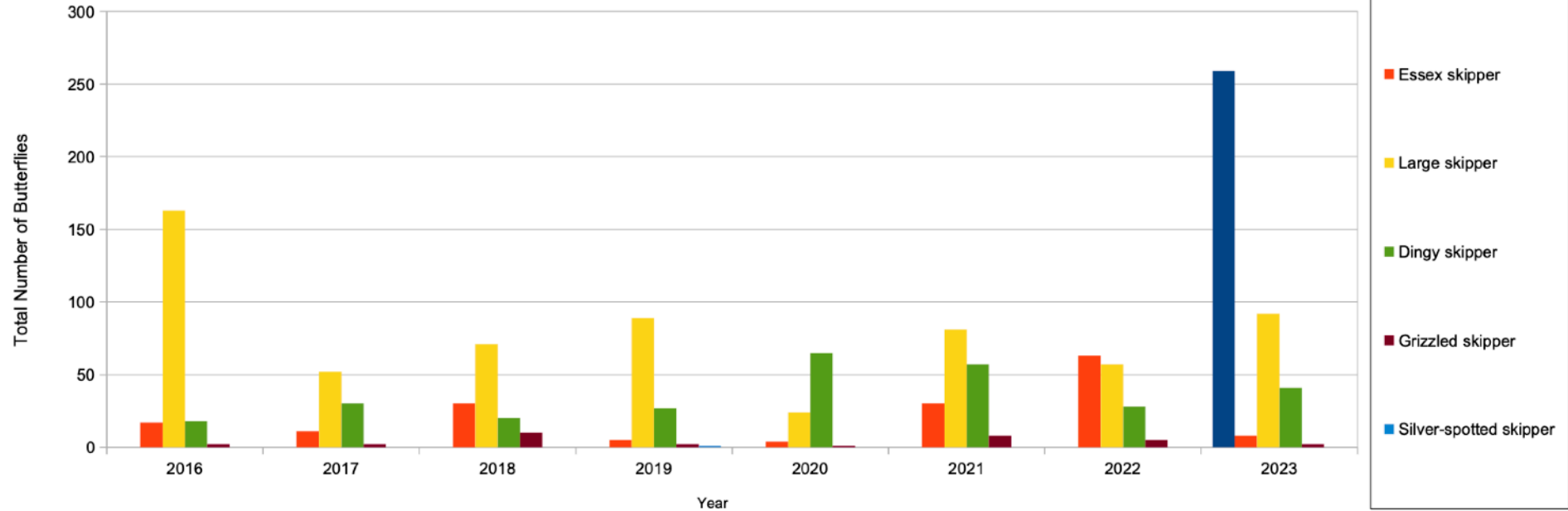
Pieridae-Whites



| No. of Counts | Year | | | | | |
|---------------|-------------|-------------|--------------------|------------|----------------|----|
| | Large white | Small white | Green-veined white | Orange tip | Clouded yellow | |
| 87 | 2016 | 188 | 245 | 30 | 38 | 22 |
| 83 | 2017 | 92 | 74 | 32 | 22 | 3 |
| 87 | 2018 | 233 | 227 | 27 | 51 | 4 |
| 106 | 2019 | 142 | 275 | 17 | 8 | 0 |
| 93 | 2020 | 120 | 169 | 20 | 15 | 37 |
| 86 | 2021 | 98 | 223 | 0 | 16 | 10 |
| 69 | 2022 | 93 | 83 | 2 | 11 | 32 |
| 75 | 2023 | 48 | 239 | 3 | 6 | 0 |
| | Mean No. | 161 | 216 | 21 | 27 | 18 |
| | Trend | ↓ | ↑ | ↓ | ↓ | ↓ |

Steyning Downland Scheme - Butterfly Counts

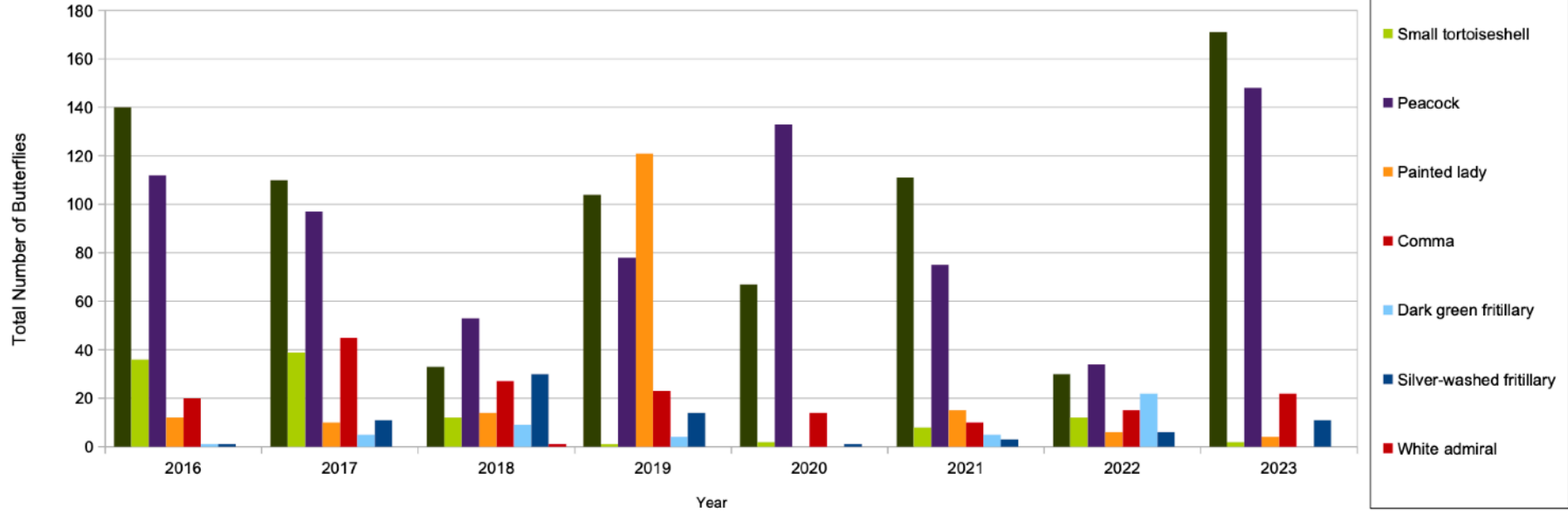
Hesperiidae-Skippers



| No. of Counts | Year | Small skipper | Essex skipper | Large skipper | Dingy skipper | Grizzled skipper | Silver-spotted skipper |
|---------------|----------|---------------|---------------|---------------|---------------|------------------|------------------------|
| 87 | 2016 | 0 | 17 | 163 | 18 | 2 | 0 |
| 83 | 2017 | 0 | 11 | 52 | 30 | 2 | 0 |
| 87 | 2018 | 0 | 30 | 71 | 20 | 10 | 0 |
| 106 | 2019 | 0 | 5 | 89 | 27 | 2 | 1 |
| 93 | 2020 | 0 | 4 | 24 | 65 | 1 | 0 |
| 86 | 2021 | 0 | 30 | 81 | 57 | 8 | 0 |
| 69 | 2022 | 0 | 63 | 57 | 28 | 5 | 0 |
| 75 | 2023 | 259 | 8 | 92 | 41 | 2 | 0 |
| | Mean No. | 0 | 27 | 90 | 41 | 5 | 0 |
| | Trend | ↑ | ↓ | ↔ | ↔ | ↔ | ↔ |

Steining Downland Scheme - Butterfly Counts

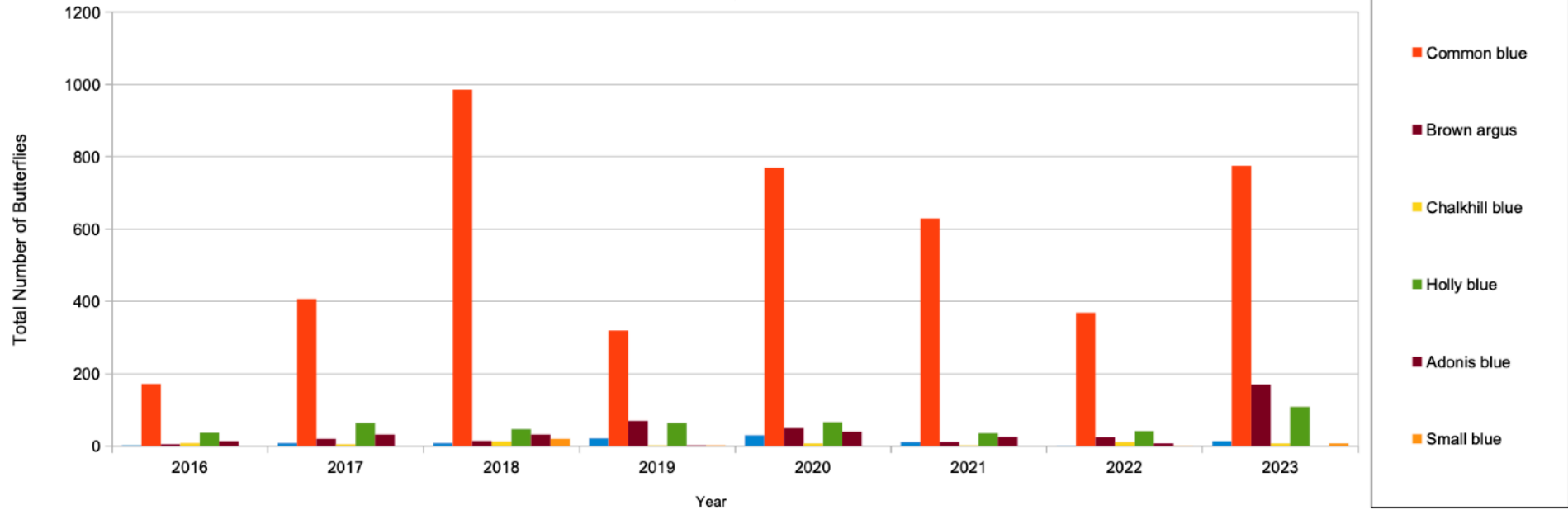
Nymphalidae



| No. of Counts | Year | Red admiral | Small tortoiseshell | Peacock | Painted lady | Comma | Dark green fritillary | Silver-washed fritillary | White admiral |
|---------------|----------|-------------|---------------------|---------|--------------|-------|-----------------------|--------------------------|---------------|
| 87 | 2016 | 140 | 36 | 112 | 12 | 20 | 1 | 1 | 0 |
| 83 | 2017 | 110 | 39 | 97 | 10 | 45 | 5 | 11 | 0 |
| 87 | 2018 | 33 | 12 | 53 | 14 | 27 | 9 | 30 | 1 |
| 106 | 2019 | 104 | 1 | 78 | 121 | 23 | 4 | 14 | 0 |
| 93 | 2020 | 67 | 2 | 133 | 0 | 14 | 0 | 1 | 0 |
| 86 | 2021 | 111 | 8 | 75 | 15 | 10 | 5 | 3 | 0 |
| 69 | 2022 | 30 | 12 | 34 | 6 | 15 | 22 | 6 | 0 |
| 75 | 2023 | 171 | 2 | 148 | 4 | 22 | 0 | 11 | 0 |
| | Mean No. | 99 | 18 | 97 | 30 | 26 | 8 | 11 | 0 |
| | Trend | ↑ | ↓ | ↑ | ↓ | ↔ | ↓ | ↔ | ↔ |

Steyning Downland Scheme - Butterfly Counts

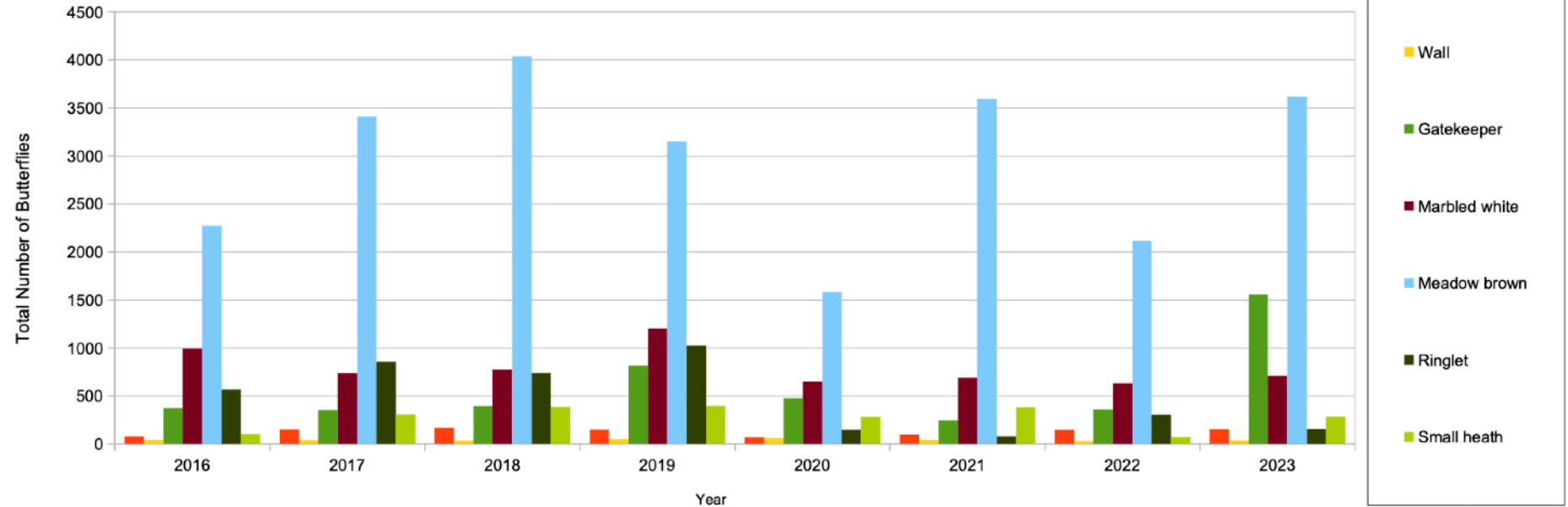
Lycaenidae-Blues



| No. of Counts | Year | Species | | | | | | |
|---------------|----------|--------------|-------------|-------------|----------------|------------|-------------|------------|
| | | Small copper | Common blue | Brown argus | Chalkhill blue | Holly blue | Adonis blue | Small blue |
| 87 | 2016 | 2 | 172 | 5 | 8 | 37 | 14 | 0 |
| 83 | 2017 | 8 | 407 | 20 | 5 | 63 | 32 | 0 |
| 87 | 2018 | 8 | 985 | 15 | 13 | 47 | 32 | 20 |
| 106 | 2019 | 21 | 320 | 70 | 2 | 63 | 2 | 2 |
| 93 | 2020 | 30 | 770 | 50 | 7 | 66 | 40 | 0 |
| 86 | 2021 | 11 | 629 | 11 | 2 | 36 | 25 | 0 |
| 69 | 2022 | 1 | 369 | 24 | 11 | 41 | 7 | 1 |
| 75 | 2023 | 14 | 775 | 170 | 7 | 109 | 0 | 7 |
| | Mean No. | 14 | 609 | 33 | 8 | 59 | 25 | 4 |
| | Trend | ↔ | ↑ | ↑ | ↔ | ↑ | ↓ | ↔ |

Steyping Downland Scheme - Butterfly Counts

Satyrinae-Browns



| No. of Counts | Year | Speckled wood | Wall | Gatekeeper | Marbled white | Meadow brown | Ringlet | Small heath |
|---------------|----------|---------------|------|------------|---------------|--------------|---------|-------------|
| 87 | 2016 | 79 | 44 | 374 | 993 | 2276 | 570 | 105 |
| 83 | 2017 | 154 | 42 | 354 | 738 | 3409 | 856 | 307 |
| 87 | 2018 | 170 | 38 | 398 | 776 | 4040 | 739 | 388 |
| 106 | 2019 | 153 | 51 | 818 | 1203 | 3150 | 1026 | 399 |
| 93 | 2020 | 70 | 61 | 477 | 652 | 1582 | 151 | 285 |
| 86 | 2021 | 100 | 44 | 246 | 691 | 3593 | 79 | 384 |
| 69 | 2022 | 151 | 32 | 360 | 634 | 2117 | 305 | 71 |
| 75 | 2023 | 156 | 40 | 1559 | 711 | 3619 | 158 | 286 |
| | | | | | | | | |
| | Mean No. | 146 | 52 | 505 | 948 | 3361 | 621 | 323 |
| | Trend | ↑ | ↓ | ↑ | ↓ | ↔ | ↓ | ↔ |