



New Forest Butterfly Transect Group Overall Summary 2022



Firstly a huge thank you to all of you for getting out there and recording even when the temperature was touching 30c and above. Allowing for restrictions due to ground nesting birds our coverage was an excellent 99.12%.

As this is only a summary with highlights I have attached the species and transect results for 2022 as separate pdfs for those who enjoy looking through excel tables. The results have changed slightly from those sent out at the end of September as validation against the results entered into UKBMS threw up a number of discrepancies that meant that some results had to be modified. As a result the total number recorded has dropped by 24 to 48294 and the number recorded of some species has changed slightly.

Overall Summary

2022 was very different to 2021 in terms of weather. Whereas spring 2021 was cool, wet and windy, the spring and early summer of 2022 was much milder and drier, meaning that butterfly numbers were consistently above average through to early July. However from late July onwards the prolonged dry spell hit nectar sources and numbers declined significantly, and 2022 turned into almost a mirror image of 2021 as the weekly figures below highlight

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| 2021 | 172 | 34 | 484 | 370 | 102 | 271 | 279 | 198 | 391 | 349 | 405 | 652 | 1311 |
| 2022 | 105 | 296 | 790 | 657 | 677 | 662 | 663 | 522 | 514 | 315 | 1075 | 3064 | 3911 |
| Difference | -67 | 262 | 306 | 287 | 575 | 391 | 384 | 324 | 123 | -34 | 670 | 2412 | 2600 |

| Week | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|------------|------|------|------|-------|-------|-------|------|------|------|------|------|------|------|
| 2021 | 3113 | 5063 | 7120 | 7038 | 5042 | 3288 | 1858 | 1554 | 1332 | 1379 | 823 | 700 | 627 |
| 2022 | 5739 | 6611 | 7472 | 5334 | 3885 | 1758 | 914 | 750 | 788 | 509 | 528 | 427 | 328 |
| Difference | 2626 | 1548 | 352 | -1704 | -1157 | -1530 | -944 | -804 | -544 | -870 | -295 | -273 | -299 |

In total 2022 was just under 10% up on 2021, 48294 compared to 43955. Comparison to previous years before 2021 is better shown by density. That is the number of butterflies recorded per kilometre walked, which takes account of the changes in numbers and routes of transects over the past 7 years. Using this comparison 2022 was a below average year as the table below shows.

| Average density by year | | | | | | | Mean |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | |
| 12.08 | 20.48 | 20.32 | 22.96 | 18.17 | 13.70 | 15.41 | 17.59 |

Weekly Transects

The peak week was week 16 as it has been for the last 4 years, this year driven by a large emergence of Gatekeeper. The individual transect peaks ranged from weeks 11 to week 18 with most in week 16 and only six in weeks 17 and 18, lower than usual, presumably impacted by the start of the drought. The early peaks were all associated with Silver-studded Blue except for Pimlico Fields which had an early emergence of Meadow Brown.

Top Weekly Counts

As usual the top counts were at Breamore but the peaks were well below recent years, Mockbeggar was not as strong as previous years and a poor Silver-studded Blue year meant that



New Forest Butterfly Transect Group Overall Summary 2022



none of the specialist transects such as Dibden Bottom, Dur Hill, Blackdown or Vales Moor made the top 12.

| Transect | Count | Week | Transect | Count | Week |
|---------------|-------|------|-----------------|-------|------|
| Breamore | 675 | 16 | Studland Common | 385 | 16 |
| Breamore | 647 | 15 | Standing Hat | 379 | 16 |
| Breamore | 556 | 14 | Perrywood Ivy | 369 | 15 |
| Perrywood Ivy | 487 | 17 | Mockbeggar | 314 | 16 |
| Breamore | 484 | 17 | Perrywood Ivy | 303 | 14 |
| Breamore | 400 | 18 | Standing Hat | 302 | 17 |

Transect Winners and Losers

2022 was a bit of a mixed bag, better than 2021 but overall below average. Ignoring the three new transects, 31 were up on 2021 and 17 down. However looking at the average for the last seven years, only 14 were up and 34 were down. On the up side Beaulieu Heath, Broadley and Studland Common were all over 40% better than average, but Broomy Plain, Vales Moor and Roe South were below 50% of their average. Whilst Roe South did improve on 2021 the other two are showing a more significant downward trend largely due to the drop in Silver-studded Blue.

Transect Winners and Losers v 2021

| Winners | | Losers | |
|-----------------|------------|-----------------|------------|
| Transect | % Increase | Transect | % Decrease |
| Normandy Marsh | 139.07% | Broomy Plain | -50.95% |
| Little Linford | 124.92% | Vales Moor | -50.69% |
| Broadley | 94.71% | Hightown Common | -30.91% |
| Godshill | 86.85% | Dur Hill | -30.03% |
| Blackwater | 75.48% | Pondhead | -28.68% |
| Janesmoor Plain | 79.72% | Mockbeggar | -28.52% |
| Holmsley | 70.73% | Hasley | -25.79% |

Weekly Species

It felt like 2022 was a year characterised by short flying periods. But looking at Pearl-bordered Fritillary, Silver-studded Blue and Orange-tip their flight periods were similar to previous years (flight periods of 7 weeks, 12 weeks and 10 weeks respectively). Certainly the summer species flight periods and numbers were affected by the dry weather, Grayling for example only made it through to the beginning of September. The spring and early summer saw good numbers of Brimstone, Peacock, Holly Blue and Orange-tip, and from mid-May onward Common Blue as well. Late summer was dominated by Speckled Wood with Large White, Small White and Red Admiral the only butterflies to show in reasonable numbers in September, although a few Small Copper showed up after a hugely disappointing year. Overall we recorded 36 species, the same as for the last two years. No Dingy Skipper or White-letter Hairstreak this year but with two Wall and three Chalkhill Blue in their place.

Species winners and losers

A 'Clouded Yellow Year' the Times proclaimed, although 37 can't be called a swarm, it easily eclipsed our previous best of 14. Painted Lady have now had three good years out of four and were around in small numbers for most of the summer which may be an omen for the future.



New Forest Butterfly Transect Group Overall Summary 2022



Purple Hairstreak equalled its previous best of nine. Orange-tip and Green Hairstreak also outperformed 2021 and beat their average. There were welcome improvements for Holly Blue, White Admiral, Large Skipper, Ringlet and Green-veined White after a poor 2021, but even so they were still below their average.

On the downside Small Copper and Dark-green Fritillary had very poor seasons, surprisingly in the latter case as Silver-washed Fritillary had a much better year, so this may be down to the impact of the drought on grassland as opposed to woodland rides. Similarly Brown Argus had a poor year but Common Blue showed an almost exact opposite improvement. Silver-studded Blue and Pearl-bordered Fritillary declined although their numbers hovered around the long term average, another poor year would be a concern though. Peacock had a very poor summer after a promising spring, as did Red Admiral but they were probably the most populous casual sighting in October and November. Small Heath was probably also affected by the drought as there were very few around in September. Grayling bounced back to their 2020 levels after a surprise fall in 2021. Note as we have created a number of Grayling transects we cannot reasonably compare to years before that.

Species Winners and Losers v 2021

| Species | % Increase | Species | % Decrease |
|--------------------|------------|---------------------------|------------|
| Clouded Yellow | 1750.00% | Red Admiral | -64.19% |
| Purple Hairstreak | 800.00% | Small Copper | -60.00% |
| Holly Blue | 211.94% | Dark-green Fritillary | -43.47% |
| White Admiral | 123.08% | Brown Argus | -27.08% |
| Green Hairstreak | 111.11% | Silver-studded Blue | -26.27% |
| Green-veined White | 80.14% | Peacock | -24.30% |
| Painted Lady | 68.00% | Small Heath | -13.99% |
| Large Skipper | 56.51% | Pearl-bordered Fritillary | -11.76% |
| Ringlet | 55.95% | | |
| Orange-tip | 43.37% | | |

Looking forward to 2023.

2022 had a very dry summer and comparisons have been made between 2022 and 1976. As I type this we have had a mild Autumn, the wettest November on record, the longest prolonged spell of cold weather since 2010 in December, although we largely escaped the snow that the rest of the UK had and we are now back to unseasonably warm and wet again. I have no idea what to expect but the drought of 1976 had a significant negative impact on the following year and lets be hopeful that 2023 will not be similarly affected.