

Butterfly Monitoring Report 2022

The United Kingdom Butterfly Monitoring Scheme (UKBMS) is one of the longest running insect monitoring schemes in the world. The scheme began in 1976 and now records data on over 2,000 sites per year. Butterfly transects are a way of monitoring the number and variety of butterflies present at a site from year to year. Full (all species) transects are carried out weekly throughout the main period in which butterflies fly in the UK (April to September). In 2022 two new transects covering our Swaddywell and Etton-Maxey reserves were added.

Transects are 1-2km in length and are walked by Langdyke volunteers over a route that provides a fair representation of the habitats present at each site. This transect is 'fixed', in other words the same route should be followed each year, and is split into sections which, ideally, will be of equal length with each section representing a change in habitat or management type.

1. *Swaddywell Transect*

The transect for Swaddywell Quarry is shown in Figure 1 below. It is split into 8 sections and was walked weekly between the 8th April (week number 2) and the 29th September (week number 26). No data was collected for weeks 8 and 21. The transect is 1,860 metres in length and the principal habitat type is dry semi/unimproved (flower rich) chalk/limestone grassland.

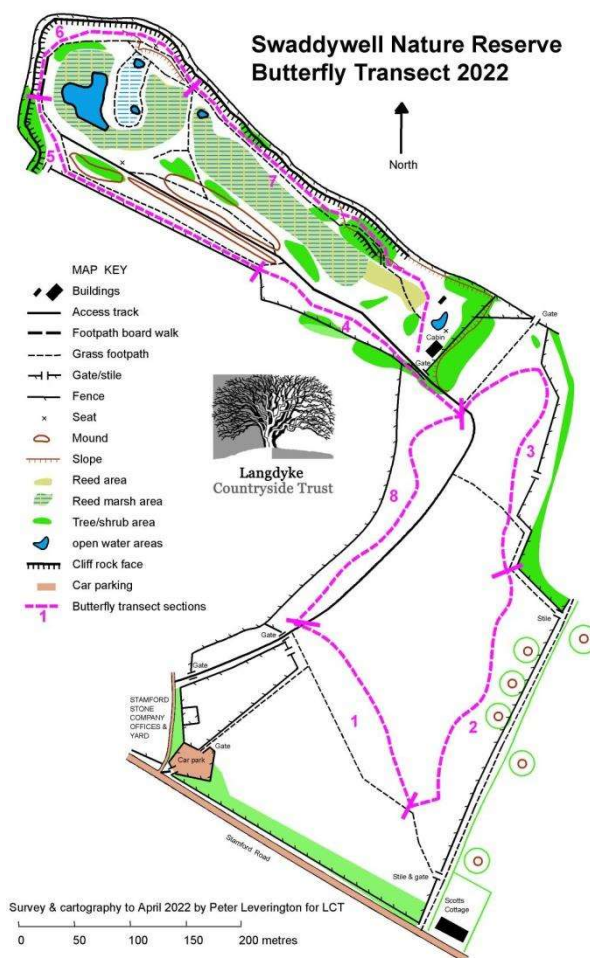


Figure 1 - Map of the Swaddywell reserve showing the butterfly transect split into 8 sections

1.1 Swaddywell Transect Results

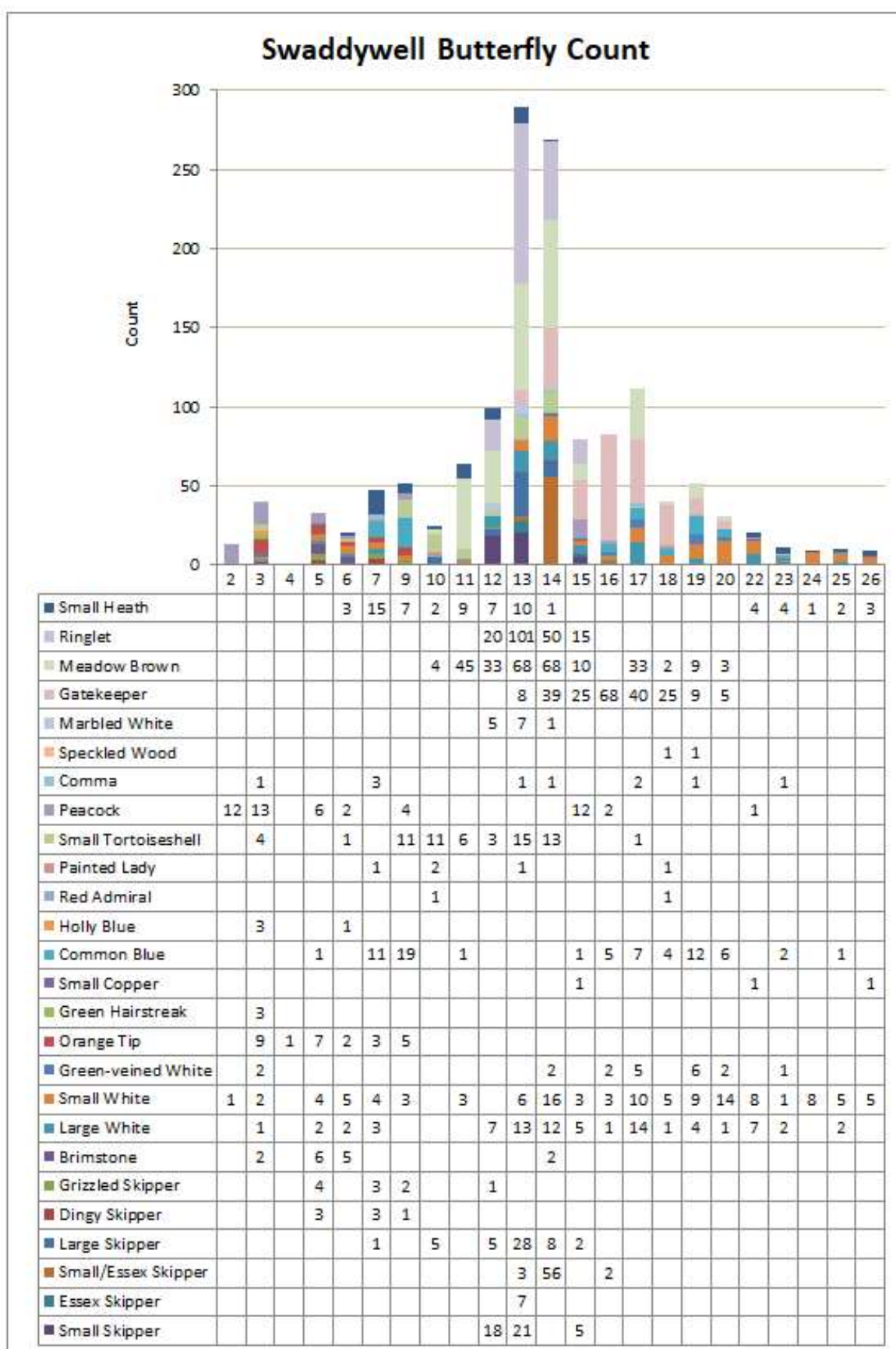


Figure 2 - Graph showing individual butterfly counts by week for the Swaddywell reserve

1.2 Swaddywell in summary:

- 26 different butterfly species were recorded over the 23 weeks
- The top 3 butterfly species recorded were Meadow Brown, Gatekeeper and Ringlet
- No one species was recorded in every week of the survey, the most consistent being the Small White which was recorded in 20 of the 23 weeks
- The highest number of butterflies, 289 individuals across 14 species, was recorded on the 30th June (week 13)
- The lowest number of butterflies, a single Orange Tip, was recorded on the 28th April (week 4)
- Butterflies were recorded in each section of the transect, and the section with the highest total butterfly count over the whole monitoring period was S8 (see Figure 3)
- Red Lists are the standard, objective way of assessing the extinction risk of species at global, continental and country levels. The latest Red List (May 2022) for butterflies categorises half of Britain's remaining species as Threatened (Endangered or Vulnerable) or Near Threatened. The Swaddywell reserve currently has no species in the Endangered category, 2 species (Grizzled Skipper and Small Heath) in the Vulnerable category and no species in the Near Threatened category. All other butterflies recorded at Swaddywell are classified as Least Concern.

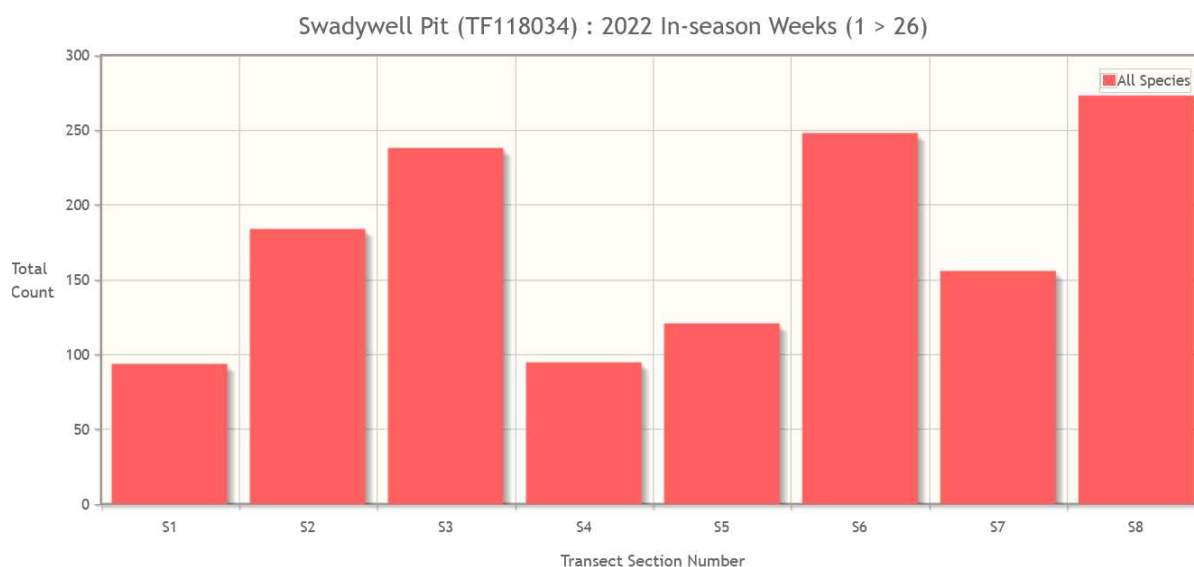


Figure 3 - Graph showing the total butterfly count for each transect section on the Swaddywell reserve

The transect for the Etton-Maxey Pit Reserve is shown in Figure 4 below. It is split into 8 sections and was walked weekly between the 29th April (week number 5) and the 29th September (week number 26). The transect is 2,236 metres in length and the principal habitat type is dry semi/unimproved (flower rich) neutral grassland.



2.1 Etton-Maxey Transect Results

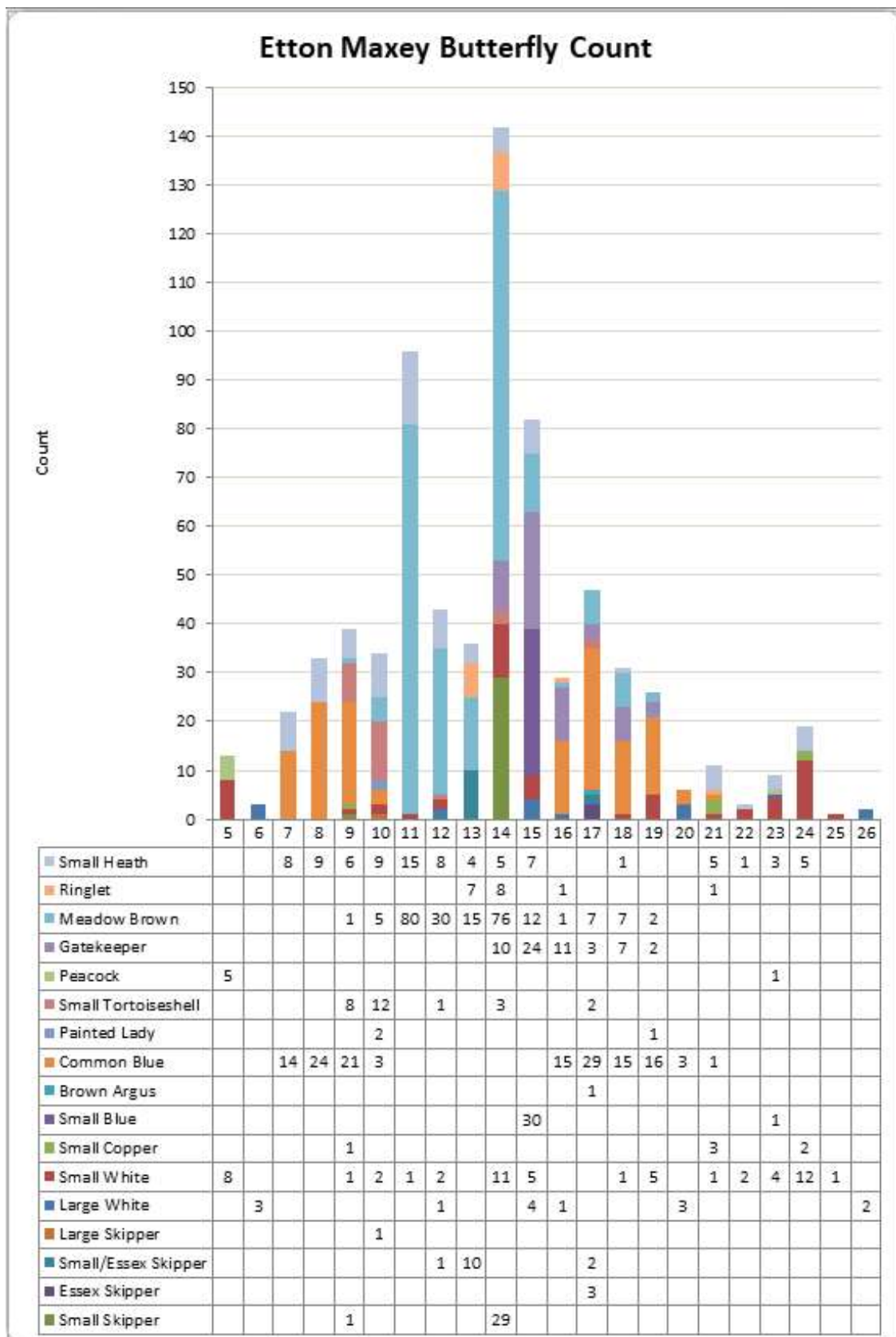


Figure 5 - Graph showing individual butterfly counts by week for the Etton-Maxey reserve

2.2 Etton-Maxey in summary:

- 17 different butterfly species were recorded over the 22 weeks
- The top 3 butterfly species recorded were Meadow Brown, Common Blue and Small Heath
- No one species was recorded in every week of the survey, the most consistent being the Small White and Small Heath which were both recorded in 14 of the 22 weeks
- The highest number of butterflies, 142 individuals across 7 species, was recorded on the 3rd July (week 14)
- The lowest number of butterflies, a single Small White, was recorded on the 21st September (week 25)
- Butterflies were recorded in each section of the transect, and the section with the highest total butterfly count over the whole monitoring period was S1 (see Figure 6)
- Red Lists are the standard, objective way of assessing the extinction risk of species at global, continental and country levels. The latest Red List (May 2022) for butterflies categorises half of Britain's remaining species as Threatened (Endangered or Vulnerable) or Near Threatened. The Etton-Maxey reserve currently has no species in the Endangered category, 1 species (Small Heath) in the Vulnerable category and 1 species (Small Blue) in the Near Threatened category. All other butterflies recorded at Etton-Maxey are classified as Least Concern.

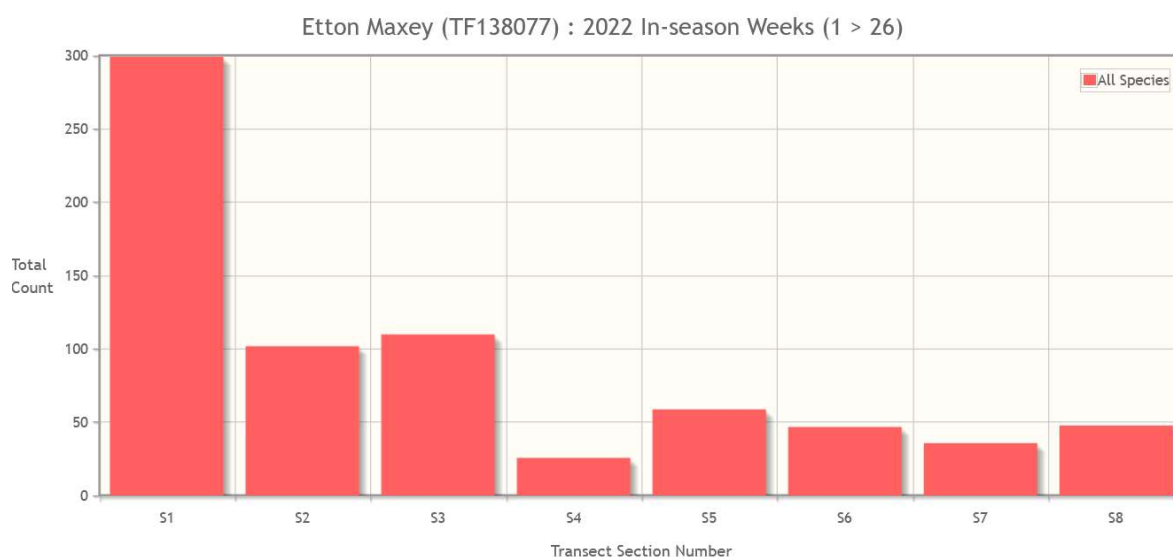


Figure 6 - Graph showing the total butterfly count for each transect section on the Etton-Maxey reserve