



Bristol Zoological  
Society  
Saving Wildlife Together



---

## SILKY WAVE MOTHS IN THE AVON GORGE – 2025 MONITORING REPORT

---

**Author:** Nic Cooke, Bristol Zoological Society

[ncooke@bzsociety.org.uk](mailto:ncooke@bzsociety.org.uk)

---

### DISTRIBUTION LIST

**Circulation:** Rosie Jackson (Bristol City Council / Avon Gorge & Downs Wildlife Project); Jen Nightingale (Bristol Zoological Society, BZS); Rosie Sims (BZS); Anna Stevens (BZS/ Avon Gorge & Downs Wildlife Project); Darren Mait (National Trust); Janine Connor (National Trust) Ray Barnett (Bristol & District Moth Group); Dan Hoare (Butterfly Conservation); Jenny Plackett (Butterfly Conservation); George Tordoff (Butterfly Conservation); Russel Hobson (Butterfly Conservation); Tim Corner (Bristol Regional Environmental Records Centre, BRERC);

---

### ACKNOWLEDGEMENTS

*The author would like to thank Butterfly Conservation, for their continued advice and support. The Avon Gorge & Downs Wildlife Project steering committee is thanked for their support and knowledge of the sites and the National Trust team, for their assistance with Quarry access. Thanks also to our 2025 surveyor team: Georgina Jarman, Neil Green, Nicola Cooke, Alex Atkinson, Jen Nightingale, Hannah Sirkett and Emily Vale.*

---

## SUMMARY

The silky wave moth *Idaea dilutaria* (Hübner 1799), is a Section 41 species under the 2006 Natural Environment and Rural Communities (NERC) Act and is found on only one site in England, the Avon Gorge, Bristol. Its presence within this area has been monitored / surveyed on an *ad hoc* basis since 1992 with regular surveys undertaken by Butterfly Conservation from 2000. Since 2011, the Bristol Zoological Society has carried out annual silky wave surveys throughout the moth's flight season.

In 2025 the silky wave, within the Avon Gorge, was surveyed throughout the five weeks around the peak flight period; from early June (6) through to the first week of July (03). All six priority sites, three on the Bristol side and three on the Somerset side, were surveyed and the peak count week varied between sites, with the majority occurring in the penultimate survey week, i.e., 24 June to 26 June 2025. With reference to the satellite sites, six out of nine were surveyed once during the flight season to determine presence or absence of silky wave moths. The satellite sites that were not surveyed were either overgrown or have lacked the moth for several years. The presence of silky wave was confirmed at all of the 12 sites surveyed. The total peak count was 356 moths, which was the highest it has been since 2012, and considerably higher than the total peak count of 158 in 2024.

The peak counts of the Bristol priority sites were higher than 2024 and more in line with numbers from 2014-2020. Numbers were still lower than the baseline years (2011/12). The Somerset priority sites were higher than the 2024 count and similar to the previous five years. The trend for these sites is an increase in silky wave peak counts from 2012 onwards. Silky wave numbers this year indicate that the current habitat management regime for Quarry 4 has continued to be successful for this species. Great Quarry saw the highest peak count since consistent surveying began in 2011, but other sites may need to be reviewed given the moth declines in recent years. It should be noted that moth populations can experience cyclical changes, which may be affected by other environmental factors, such as weather patterns. This spring was the warmest and sunniest on record with very little rainfall, with June the warmest ever recorded in England (Met Office, 2025) and may have benefited the silky wave.

---

## 1. INTRODUCTION

The Bristol Zoological Society has been reporting annually on the silky wave within the Avon Gorge, Bristol, since 2011. Since 2015, the annual reports are now more concise, building on earlier work and reporting the key silky wave survey results. For further background please see previous silky wave moth reports (Nightingale et al., 2011 - 2022),Cooke, 2023-2024).

The silky wave is a species of larger moth occurring in central and southern Europe and in the Caucasus to north-eastern Turkey, and is also found in northern France, Germany and in one site in Sweden. It is classified as Rare (RDB 3) in Great Britain, where it is on the edge of its range, and is found in only three areas. Two of these areas are within Wales; on the Gower coast of Glamorgan and on the Great Orme in North Wales. The third population is the only one known in England and is within the Avon Gorge in Bristol. The Avon Gorge has natural cliffs and quarry exposures of carboniferous limestone, which are of significant geological interest and, together with the scree, scrub, pockets of grassland and adjacent woodland, support an exceptional number of nationally rare and scarce plant species. It is designated as a Special Site of Scientific Interest (SSSI) and a Special Area of Conservation (SAC). The silky wave moth was first recorded in the Avon Gorge in 1851.

---

## 2. METHODS AND MATERIALS

The silky wave moth flight period is typically throughout June and July as shown by survey data collected from 2000 - 2023 (Nightingale et al., 2022). Research undertaken during the 2014 survey season determined that the moths are most active in warm, sunny conditions, with low wind speeds. The research also suggested that activity peaked during the morning and late afternoon, with a dip in activity towards the middle of the day (McCafferty, 2014). To minimise survey effort and maximise survey efficiency, Bristol Zoological Society aim to carry out all surveys during the conditions and time scales when the silky wave moth is most active, but with the target of recording a peak count during the moths' flight period.

Although the moth occurs at several discrete sites within the Gorge, six priority sites have been identified for monitoring purposes: three on the Bristol side and three on the Somerset side. The Bristol side priority sites are: Black Rocks, The Gully and Walcombe Slade. On the Somerset side the priority sites are Blockhouse Slope, Donkey Slide and Quarry 3. In addition, there are satellite sites that have had silky wave moth sightings over the past decade or more. The map (Figure 1) details all the silky wave moth sites with the Avon Gorge.

Once the flight season had begun, the priority sites, on both the Bristol and Somerset sides of the Gorge were surveyed regularly, once a week. This year, the survey season on the Bristol side was extended to five weeks for the priority sites, (aiming to take into account peak emergence), to ensure that peak flight period was recorded. Satellite sites on both sides of the Gorge were surveyed once throughout the flight season to ascertain presence or absence of silky wave moths within them.

The transects, which were established in 2010, were walked at each site, during each survey event. At Quarry 3 in addition to the small section of path on the upper quarry slopes that was added to the standard transect in 2018, a linking section was added to increase the survey effort to provide a thorough data set as significant habitat work has been undertaken. The surveyors used hiking sticks to disturb the vegetation along either side of the transect. Typically, each transect was walked once per week in suitable weather conditions and these were timed. The first survey date was 6 June 2025, and the final survey date was 3 July 2025. Additional environmental information was recorded on a standardized form which included:

1. Temperature, measured in Celsius.
2. Humidity, measured as a percentage.
3. Wind speed, ranging from 0-5, using the Beaufort scale.
4. Rainfall, ranging from 0-4 (no rain to heavy rain).
5. Abundance of common rock rose, ranging from 0-4 (sparse to abundant).
6. Condition of site as a whole in terms of whether more management is needed.
7. Additional notes and other species identified

Moth sightings were marked onto the transect maps. All sites had fixed point photography, i.e., a point marked on the transect, where a photograph was taken in a particular direction.

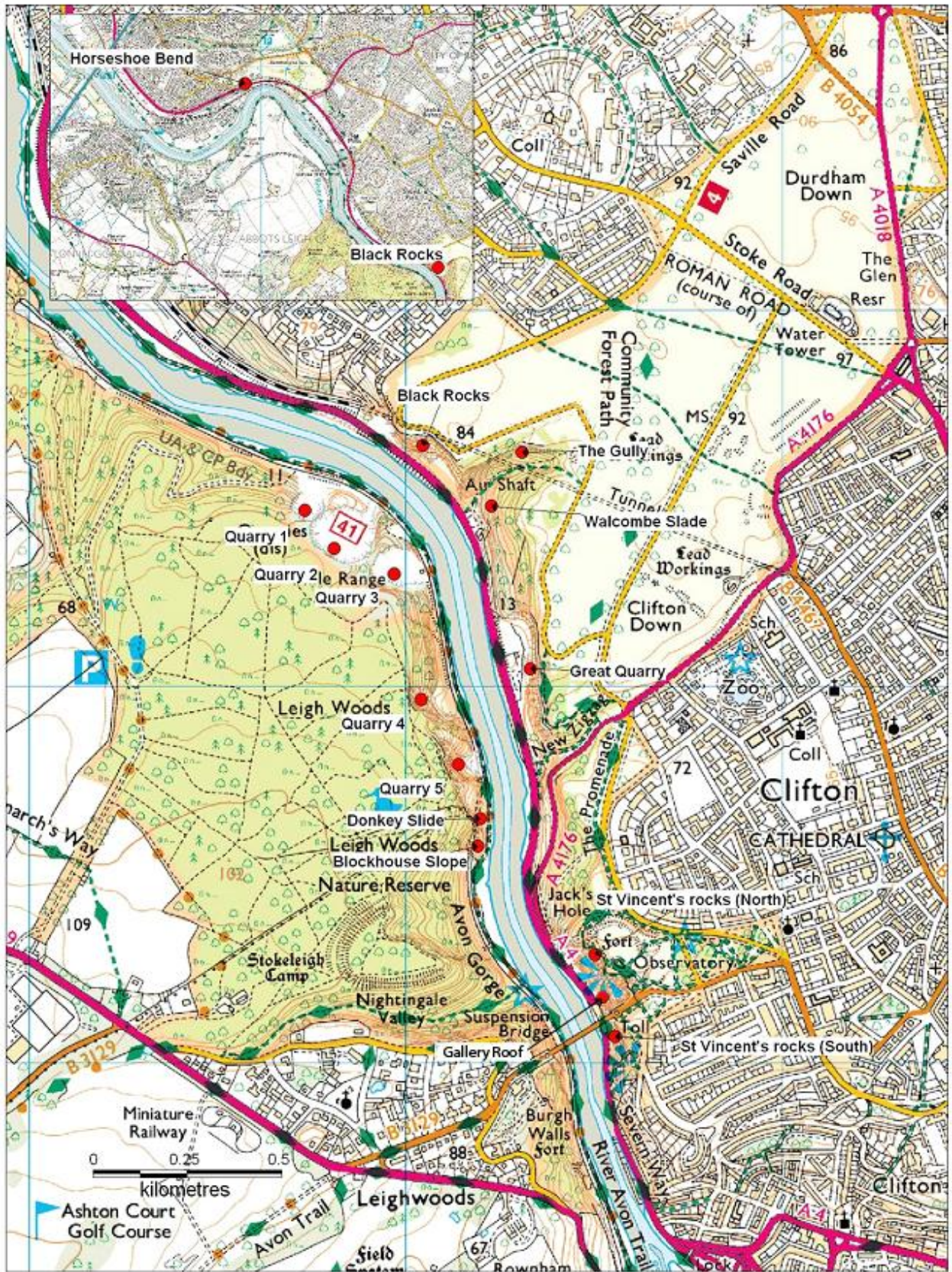
Fixed point photography monitoring of all sites surveyed, combined with the sketch maps, allowed assessment of site use by the species and detection of any general habitat changes over time. The 2010 monitoring forms were used to record all the data and Field Studies Council identification charts were used, when necessary, to identify other invertebrate species that were observed during the timed transects.

All silky wave moth records were submitted by Bristol Zoological Society to the County Moth Recorders for VC34 and VC6 and to the Bristol Regional Environmental Records Centre (BRERC). All other invertebrate species recorded were also submitted to BRERC.



# Silky Wave: Avon Gorge Sites of interest for the Silky Wave

Mapped May 2009 AR



**Figure 1.** All known silky wave moth sites, with agreed monitoring names, within the Avon Gorge, showing both Bristol and Somerset sites (revised 2011).

### 3. RESULTS AND DISCUSSION

#### 3.1. Monitoring analysis

##### 3.1a. Bristol priority sites

**Table 1a.** Silky wave moth counts for Bristol priority monitoring sites on each visit, maximum counts for each site highlighted.

| Site           | Grid reference | Search effort (mins) | Date       | Silky wave moth count |
|----------------|----------------|----------------------|------------|-----------------------|
| Black Rocks    | ST559746       | 20                   | 10.06.2025 | 8                     |
| Black Rocks    |                | 30                   | 16.06.2025 | 19                    |
| Black Rocks    |                | 24                   | 24.06.2025 | 24                    |
| Black Rocks    |                | 20                   | 30.06.2025 | 3                     |
| Walcombe Slade | ST561745       | 45                   | 6.06.2025  | 0                     |
| Walcombe Slade |                | 45                   | 10.06.2025 | 9                     |
| Walcombe Slade |                | 45                   | 16.06.2025 | 38                    |
| Walcombe Slade |                | 58                   | 24.07.2025 | 53                    |
| Walcombe Slade |                | 22                   | 30.06.2025 | 9                     |
| Gully          | ST562746       | 30                   | 6.06.2025  | 18                    |
| Gully          |                | 51                   | 10.06.2025 | 36                    |
| Gully          |                | 39                   | 16.06.2025 | 44                    |
| Gully          |                | 57                   | 24.06.2025 | 35                    |
| Gully          |                | 38                   | 30.06.2025 | 11                    |

##### 3.1b. Somerset priority sites

**Table 1b.** Silky wave moth counts for Somerset priority monitoring sites on each visit, maximum counts for each site highlighted.

| Site             | Grid reference | Search effort (mins) | Date       | Silky wave moth count |
|------------------|----------------|----------------------|------------|-----------------------|
| Blockhouse Slope | ST561736       | 34                   | 10.06.2025 | 3                     |
| Blockhouse Slope |                | 40                   | 19.06.2025 | 9                     |
| Blockhouse Slope |                | 16                   | 26.06.2025 | 12                    |
| Blockhouse Slope |                | 8                    | 3.07.2025  | 4                     |
| Donkey Slide     | ST561736       | 46                   | 10.06.2025 | 15                    |
| Donkey Slide     |                | 60                   | 19.06.2025 | 10                    |
| Donkey Slide     |                | 45                   | 26.6.2025  | 19                    |
| Donkey Slide     |                | 30                   | 3.07.2025  | 6                     |
| Quarry 3 (T1&T2) | ST559743       | 64                   | 10.06.2025 | 3                     |
| Quarry 3 (T1&T2) |                | 60                   | 19.06.2025 | 13                    |
| Quarry 3 (T1&T2) |                | 76                   | 26.06.2025 | 38                    |
| Quarry 3 (T1&T2) |                | 75                   | 3.07.2025  | 21                    |

##### 3.1c. Bristol satellite sites

During the flight period, surveys were carried out at four of the Bristol-side, satellite sites and silky wave moths were found to be present on all four of these sites (Table 1c).

**Table 1c.** Silky wave moth counts for Bristol satellite sites.

| Site            | Grid Reference | Search effort (mins) | Date       | Silky wave moth count |
|-----------------|----------------|----------------------|------------|-----------------------|
| Great Quarry    | ST562741       | 60                   | 25.06.2025 | 59                    |
| Vincent Rocks N | ST564733       | 16                   | 25.06.2025 | 17                    |
| Vincent Rocks S | ST564731       | 18                   | 25.06.2025 | 5                     |
| Portway Roof    | ST564731       | 18                   | 25.06.2025 | 25                    |

### 3.1d. Somerset satellite sites

Two satellite sites on the Somerset side were surveyed; Quarry 4 and Quarry 5 and silky wave were recorded at both (Table 1d). Quarry 1 and 2, the other Somerset satellite sites, were still too overgrown for effective surveys to be undertaken and had no recorded moths on them for several years.

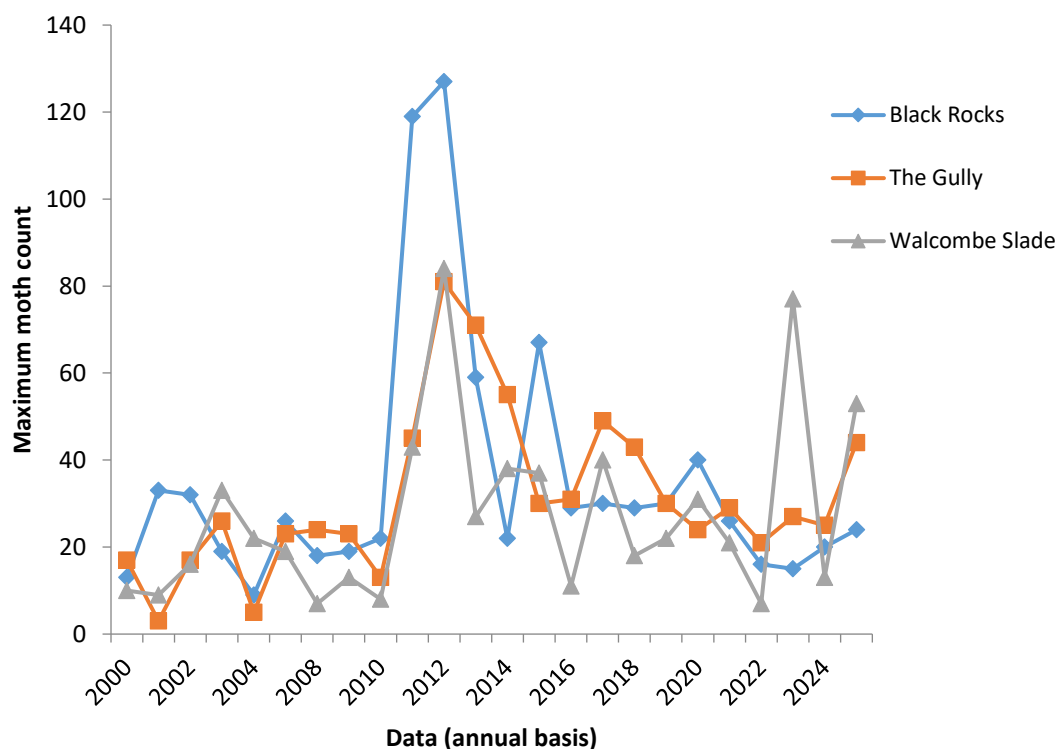
**Table 1d.** Silky wave moth counts for Somerset satellite sites.

| Site     | Grid Reference | Search effort (mins) | Date       | Silky wave moth count |
|----------|----------------|----------------------|------------|-----------------------|
| Quarry 4 | ST571739       | 54                   | 26.06.2025 | 46                    |
| Quarry 5 | ST560738       | 32                   | 26.06.2025 | 14                    |

## 3.2. Silky wave moth site trends

### 3.2a. Bristol priority sites

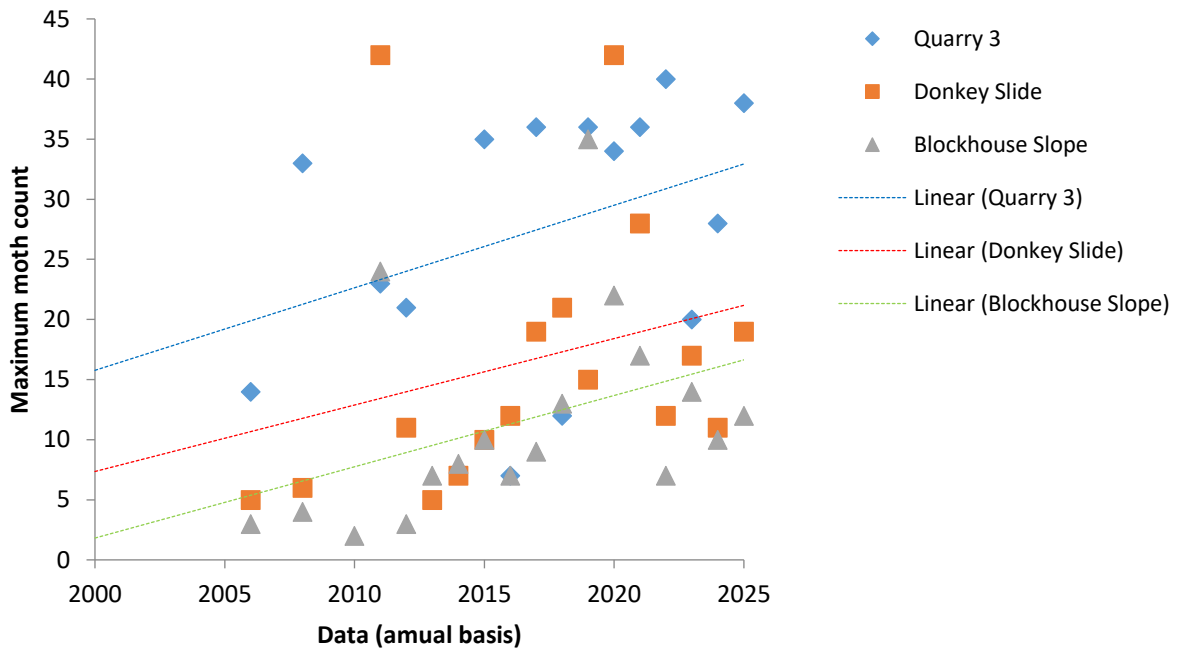
In comparison to the 2024 peak moth counts, all of the Bristol priority sites saw increased moth numbers. Black Rocks recorded the smallest increase from 2024 and shows a steady decline since the peak counts of 2011-2012 (Figure 2a).



**Figure 2a.** Maximum counts for silky wave moths at Bristol priority sites (2000-2025).

### 3.2b. Somerset priority sites

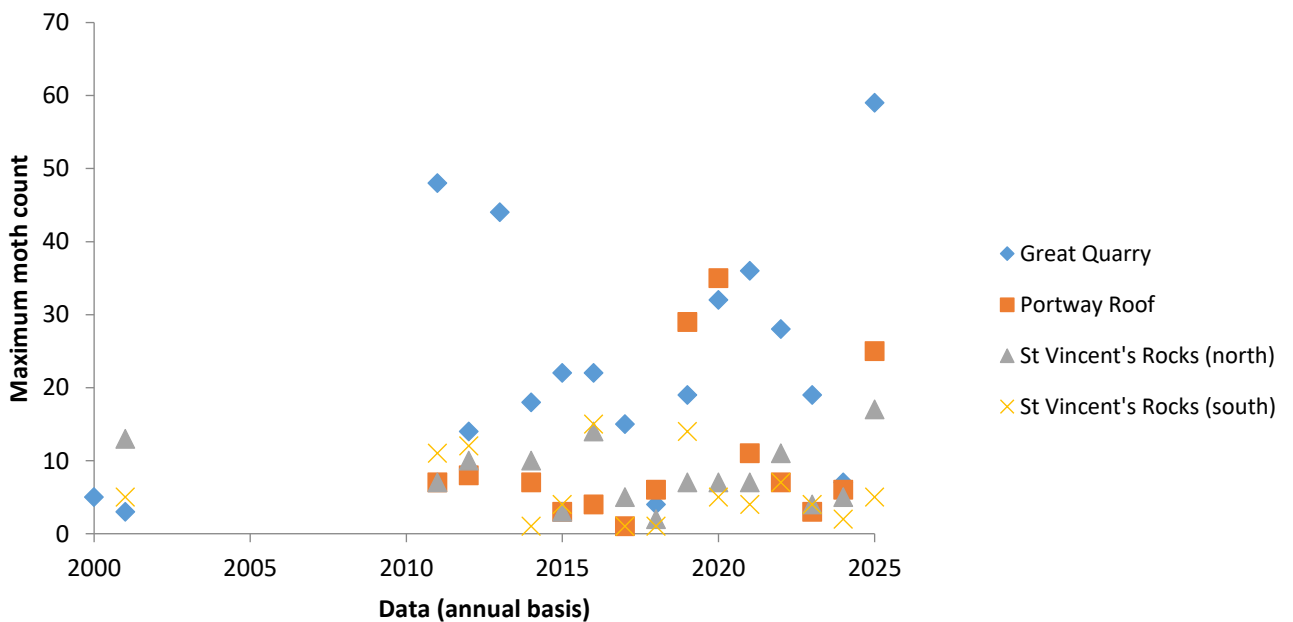
All Somerset priority sites saw an increase in peak counts from 2024 peak counts. Quarry 3 had the second highest peak count since surveying began in 2006. Donkey Slide and Blockhouse saw a slight increase in numbers.



**Figure 2b.** Maximum counts and linear trends for silky wave at the Somerset priority sites (2000-2025).

### 3.2c. Bristol satellite sites

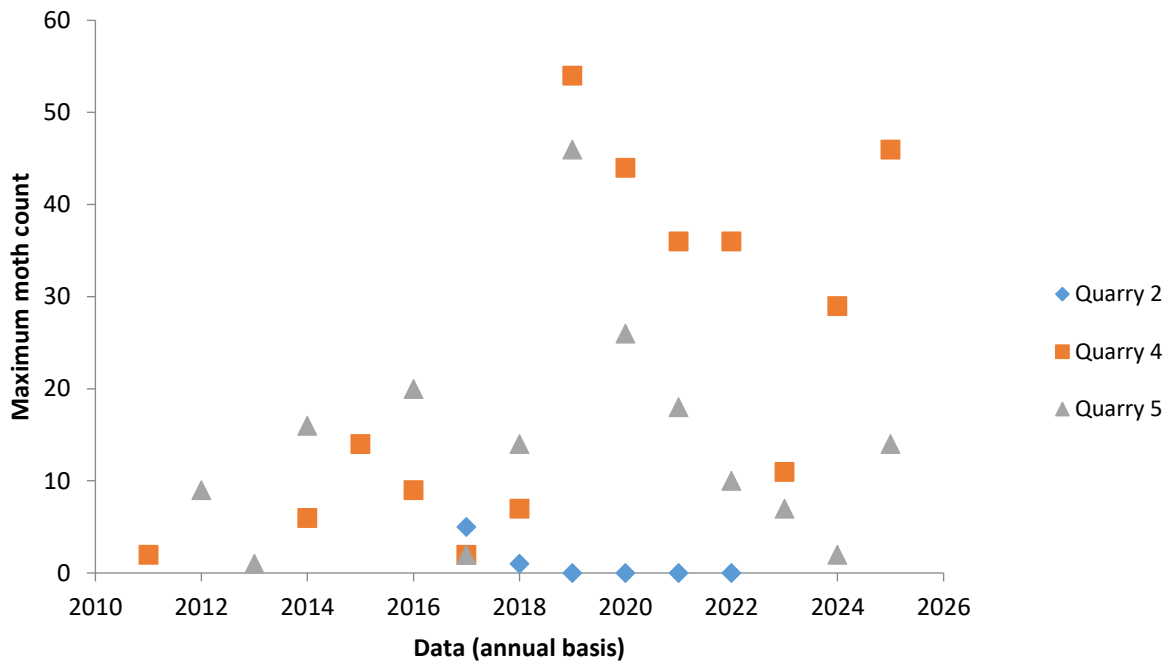
Great Quarry, Portway Roof, Vincent Rocks (North and South) were surveyed once during the silky wave flight season. All sites saw a higher moth numbers than 2024. Great Quarry and St Vincent's Rocks North had the highest numbers since consistent surveys began in 2011. St Vincent's Rocks South had low numbers but were comparable with previous years (Figure 2c; Table 1c) and the Portway Roof had the highest number of moths recorded since 2020.



**Figure 2c.** Maximum counts for silky wave at the surveyed Bristol satellite sites in the Avon Gorge (2000-2025).

### 3.2d. Somerset satellite sites

Quarries 4 and 5 were surveyed once during the silky wave flight season. Quarry 4 had a higher peak moth count than 2024 and were similar to the high counts in the 2019-2022 years. Quarry 5 had higher numbers than 2024 but still lower than the high counts of 2019. Quarry 2 was not surveyed this year (Figure 2d; Table 1d).



**Figure 2d.** Maximum counts for silky wave at the surveyed Somerset satellite sites, Quarry 2, Quarry 4 and Quarry 5 in the Avon Gorge (2011-2024).

### 3.3. Phenology

Peak flights for the priority sites were slightly variable; this is the same trend as has been observed in recent years. Most of the peak counts were from the 24<sup>th</sup> June to the 26<sup>th</sup> June, with The Gully peak count on the 16<sup>th</sup> June (Tables 1a & 1b).



**Figure 3.** Silky wave moths at The Gully (G.Jarmen, 2025)

**Table 3.** Maximum peak count number of silky wave moths recorded at all sites from 2011-2025, with maximum counts for priority sites highlighted in gold and highest peak counts in bold.

| SITE   | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       | 2019       | 2020       | 2021       | 2022       | 2023       | 2024       | 2025       |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Black Rocks                                    | 119        | <b>127</b> | 59         | 22         | 67         | 29         | 30         | 29         | 30         | 40         | 26         | 16         | 15         | 20         | 24         |
| The Gully                                      | 45         | <b>81</b>  | 71         | 55         | 30         | 31         | 49         | 43         | 30         | 24         | 29         | 21         | 27         | 25         | 44         |
| Walcombe Slade                                 | 43         | <b>84</b>  | 27         | 38         | 37         | 11         | 40         | 18         | 22         | 31         | 21         | 7          | 77         | 13         | 53         |
| Great Quarry                                   | 48         | 14         | 44         | 18         | 22         | 22         | 10         | 4          | 19         | 32         | 36         | 28         | 19         | 7          | <b>59</b>  |
| St Vincent's Rocks N                           | 7          | 10         | N/V        | 10         | 3          | 14         | 3          | 2          | 7          | 7          | 7          | 11         | 4          | 5          | <b>17</b>  |
| St Vincent's Rocks S                           | 11         | 12         | N/V        | 1          | 4          | <b>15</b>  | 1          | 1          | 14         | 5          | 4          | 7          | 4          | 2          | 5          |
| Portway Roof                                   | 7          | 8          | N/V        | 7          | 3          | 4          | 1          | 6          | 29         | <b>35</b>  | 11         | 7          | 3          | 6          | 25         |
| Quarry 1                                       |            | 0          | N/V        | N/V        | N/V        | N/S        | N/S        | N/S        | N/S        | N/S        | N/S        | N/S        | N/S        | N/S        | N/S        |
| Quarry 2                                       | 0          | 2          | N/V        | N/V        | N/V        | N/S        | 5          | 1          | 0          | 0          | 0          | 0          | N/S        | N/S        | N/S        |
| Quarry 3                                       | 23         | 21         | 0          | N/V        | 35         | 7          | 36         | 12         | 36         | 34         | 31         | <b>40</b>  | 20         | 28         | 38         |
| Quarry 4                                       | 2          | 0          | N/V        | 6          | 14         | 9          | 2          | 7          | <b>54</b>  | 44         | 36         | 36         | 11         | 29         | 46         |
| Quarry 5                                       | 0          | 9          | 1          | 16         | N/V        | 20         | 2          | 14         | <b>46</b>  | 26         | 18         | 10         | 7          | 2          | 14         |
| Donkey Slide                                   | <b>42</b>  | 11         | 5          | 7          | 10         | 7          | 19         | 21         | 15         | <b>42</b>  | 17         | 12         | 17         | 11         | 12         |
| Blockhouse Slope                               | 24         | 3          | 7          | 8          | 10         | 13         | 9          | 13         | <b>35</b>  | 22         | 28         | 7          | 14         | 10         | 19         |
| TOTAL from original Bristol priority sites (3) | 207        | <b>292</b> | 157        | 115        | 134        | 71         | 119        | 90         | 82         | 95         | 76         | 44         | 119        | 58         | 121        |
| TOTAL from Somerset Priority sites (3)         | 89         | 35         | 12         | 15         | 55         | 26         | 64         | 46         | 86         | <b>98</b>  | 76         | 59         | 51         | 49         | 69         |
| <b>TOTAL</b>                                   | <b>371</b> | <b>382</b> | <b>214</b> | <b>188</b> | <b>235</b> | <b>181</b> | <b>207</b> | <b>171</b> | <b>337</b> | <b>342</b> | <b>264</b> | <b>202</b> | <b>218</b> | <b>158</b> | <b>356</b> |

### 3.4. Habitat management recommendations

#### 3.4a. Priority sites

##### Black Rocks, Bristol

The amount of scrub has steadily increased over this site, covering a greater proportion of the site each year and moth count numbers lower than the baseline years (2011/12); therefore, it would be useful to assess if increased scrub management can reverse this trend. There is a large amount of the non-native sweet pea (*Lathyrus odoratus*), which has increased cover since 2024 and is likely reducing the amount of rock rose on the site.



**Figure 4.** Sweet pea covering Black Rocks (N.Cooke, 2025)

### **The Gully and Walcombe Slade**

Silky wave numbers continue to be much lower than the peak counts of 2011 and 2012 in the Gully, which corresponds with the time that the goats were introduced to this area. The subsequent reduction in moth numbers could indicate that this management regime, may not be as beneficial to the silky moth as it is for other native species. Additional goats were introduced in 2021, and the goat grazing has reduced scrub levels and created more open grassland habitat. Both sites showed continued increase in common rock rose from the previous year but is yet to result in higher numbers of moths in the Gully. Walcombe Slade did see high numbers more in line with the peak counts of 2011 and 2012. The Gully is more accessible to the public and may see disturbance from human activity.

### **Blockhouse & Donkey Slide**

Silky wave numbers have decreased on both these sites. The sites have become scrubby with non-native species and native trees leading to less open areas and common rock rose. A new management regime needs to be put in place with non-native and native scrub clearance recommended.



**Figure 5.** Scrub encroachment and trees on Blockhouse and Donkey Slide (N.Cooke, 2025)

### **Quarry 3, Somerset**

Silky wave numbers remain consistent over the past five years. There are still issues with invasive plant species dominating the habitat in some areas of this quarry, despite significant habitat restoration taking place in recent years. More invasive species control in particular removal of cotoneaster should take place as this is clearly an important location for this species.

### **3.4b. Satellite sites**

#### **Great Quarry**

This was a good year for the moths on this site, with the majority recorded higher up the slopes where there is less scrub. Scrub has increased at Great Quarry over the years, particularly in the lower sections of the site and would benefit from habitat management, to reduce the scrub on the transect pathway, to facilitate the survey effort.

#### **St Vincent's Rocks North and South**

The surrounding area of this site has a large amount of scrub encroachment since the 2012 surveys and some of the transect pathways are now fairly inaccessible. Moth numbers increased on the North slopes however low numbers on the South have been fairly consistent over many years. It is likely that the silky wave is inhabiting other areas on the slope, which are inaccessible without climber assistance.

#### **Portway Roof**

Silky wave numbers were considerably lower than in the 2019 and 2020; however, the moth numbers are consistent with most years of data. There is considerable scrub encroachment, and this site would benefit from additional habitat management.

#### **Quarry 1**

This site has not been surveyed for the past eight years as it is very inaccessible due to a large amount of scrub encroachment along the quarry slopes and pit. This site would benefit from the removal of invasive species, such as cotoneaster and holm oak, enabling native species to thrive.

#### **Quarry 2**

Quarry 2 is a mixture of woodland, low-lying grassland and grassland quarry slopes. The site has seen very few moths over the years, and none recorded since 2018. It was not surveyed this year.

#### **Quarry 4 and 5**

The scrub clearance done on Quarry 4 has been effective with the peak count increasing from 2023 numbers in 2024 and 2025. Quarry 5 has seen some scrub clearance which has made the site more accessible. Moth numbers increased this year.

---

## 4. CONCLUSION

During the 2025 silky wave moth survey, 12 sites, out of 12 surveyed, showed a presence of silky wave. The total peak count for silky wave moths in 2025 was 356, with 121 recorded on the Bristol side and 69 on the Somerset side. This was higher than last year, with Somerset numbers remaining similar but the Bristol numbers more than doubled. The higher moth numbers, from this year, is likely due to environmental factors such as weather patterns influencing the success rate of the larvae. Some sites did not see a large increase in numbers suggesting that poor quality habitat has limited the impact of good climate conditions for the moths. Black Rocks, Donkey Slide and Blockhouse Slopes have been impacted by scrub encroachment and should be a priority for management. Quarry 4 is a good example of successful scrub management with silky wave numbers increasing again in 2025 after clearing had taken place. Habitat management of all sites should be reviewed on a yearly basis, particularly at The Gully and Walcombe Slade with the introduction of additional goats during 2021.

Prior to 2011, surveys were undertaken on a fairly *ad-hoc* basis and not regularly during the silky wave flight period; therefore, the 2011 counts are taken as the base-line survey for comparing silky wave data. Typically, the peak moth count has been observed during the first week of July; however, in the last five years the peak moth count at the priority sites has been, on average, at the end of June rather than the first week of July. This year peak counts on both sides were the week commencing 24<sup>th</sup> of June. The last survey took place in the week commencing 30<sup>th</sup> of June, where fewer moths were recorded. It is likely that the surveys covered the peak week for the silky waves this year.

---

## 5. REFERENCES

- Cooke N. (2024). Silky wave moths in the Avon Gorge – 2024 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Cooke N. (2023). Silky wave moths in the Avon Gorge – 2023 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- McCafferty G. (2014). Ecology and behaviour of the silky wave moth, *Idaea dilutaria* in the Avon Gorge, Bristol. University of West of England.
- Met Office. (2025). Summer 2025 is the warmest on record for the UK. Available at: <https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2025/summer-2025-is-the-warmest-on-record-for-the-uk#:~:text=Met%20Office%20scientist%20Dr%20Emily,%C2%B0C%20set%20in%202018.>
- Nightingale J. (2013). Silky wave moths in the Avon Gorge – 2013 Monitoring Report. Bristol Conservation & Science Foundation, Bristol, UK.
- Nightingale J. (2015). Silky wave moths in the Avon Gorge – 2015 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2016). Silky wave moths in the Avon Gorge – 2016 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2017). Silky wave moths in the Avon Gorge – 2017 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2018). Silky wave moths in the Avon Gorge – 2018 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2019). Silky wave moths in the Avon Gorge – 2019 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2020). Silky wave moths in the Avon Gorge – 2020 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2021). Silky wave moths in the Avon Gorge – 2021 Monitoring Report. Bristol Zoological Society, Bristol, UK.
- Nightingale J. (2022). Silky wave moths in the Avon Gorge – 2022 Monitoring Report. Bristol Zoological Society, Bristol, UK.

Nightingale J. & Ivey M. (2012). Silky wave moths in the Avon Gorge – 2012 Monitoring Report. Bristol Conservation & Science Foundation, Bristol, UK.

Nightingale J. & Rees M. (2011). Silky wave moths in the Avon Gorge – 2011 Monitoring Report. Technical Report. Bristol Conservation & Science Foundation, Bristol, UK.

Nightingale J. & Wells S. (2014). Silky wave moths in the Avon Gorge – 2014 Monitoring Report. Bristol Zoological Society, Bristol UK.

Rosenthal A. (2010). Silky Wave *Idaea dilutaria* – Avon Gorge Monitoring Programme. Butterfly Conservation.