

2019

# Hatchmere Butterfly Transects 2019 Survey Summary



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# Hatchmere Butterfly Transects - 2019 Survey Summary

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## Hatchmere Butterfly Transects - 2019 Survey Summary

### 2019 SUMMARY

This yearly summary report covers the 26 week butterfly monitoring period from April 1<sup>st</sup> 2019 to September 29<sup>th</sup> 2019 (as determined by the UK Butterfly Monitoring Scheme managed by Butterfly Conservation).

Two transects were surveyed in Hatchmere during this period;

- The **Hatchmere Transect** - a formally surveyed transect designed in conjunction with Butterfly Conservation and surveyed under their rules. The transect is primarily a deciduous forested site with a wet heathland and two wet woodland areas.
- The **Hatchmere Extension Transect** - an extension to the Hatchmere Nature Reserve owned by Cheshire Wildlife Trust and currently being managed as a private nature reserve. The site primarily consists of a large grass meadow with a brook running alongside a heavily forested area. This site is informally surveyed for Cheshire Wildlife Trust only. The Extension transect is a new transect which was set up in week 13 (27th June 2019).

### UK WIDE SUMMARY

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The results of the 2019 Big Butterfly Count (the citizen's project to survey butterflies during a 4 week period in July and August, conducted annually by Butterfly Conservation) classified 2019 as a "Painted Lady year" due to millions of the butterflies migrating to the UK. The largest counts were seen in the north with over 420,000 individuals reported during the survey. The previous such year was in 2009.

The Count also showed that numbers of some of our common butterflies were up on 2018 figures; Red Admiral (up a staggering 165%), Gatekeeper (up 108%), Brimstone (up 13%), Meadow Brown (up 87%) and Small Tortoiseshell (up an impressive 158%).

Unfortunately Green-veined Whites were down 42% on 2018. In fact, all whites were down by the same percentage. Speckled Woods also fared badly, down 18%.

### HATCHMERE TRANSECT SUMMARY

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A total of **141** butterflies were counted during the 2019 surveys of the formal Hatchmere Butterfly Transect. The key species were **Brimstones** (61 seen), **Speckled Woods** (26), **Green-veined Whites** (16) and **Peacocks** (11). A number of other species were also seen during the year, although these were only seen in very low numbers; **Holly Blue**, **Small Tortoiseshell**, **Red Admiral**, **Painted Lady**, **Meadow Brown** and **Comma**.

The Hatchmere surveys showed a similar pattern to the Big Butterfly Count with Brimstones up on 2018 figures (from 45 to 61). Red Admirals, Small Tortoiseshells and Meadow Browns were also seen on the main Hatchmere site this year where none were seen in 2018. Green-

## **Hatchmere Butterfly Transects - 2019 Survey Summary**

veined Whites were down significantly on 2018 figures (from 66 to 16) and Speckled Woods were also down (44 to 26). No Large Whites were seen at all in 2019 compared with 9 in 2018.

### **HATCHMERE EXTENSION TRANSECT SUMMARY**

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A total of **143** butterflies were counted during the 2019 surveys of the Hatchmere Extension Butterfly Transect. The key species being **Meadow Brown** (51 seen), **Gatekeeper** (31), **Green-veined White** (15) and **Speckled Wood** (11). A number of other species were also seen, although in much lower numbers; **Red Admiral**, **Small Skipper**, **Large Skipper**, **Comma**, **Large White**, **Peacock**, **Brimstone**, **Small Tortoiseshell** and **Small White**.

As the Hatchmere Extension site has only been surveyed since June 2019 there are no previous records against which to compare this year's figures. However, the pattern of butterfly sightings would appear to match that seen in the Big Butterfly Count results with large numbers of Meadow Browns, Gatekeepers and Painted Ladys seen on site.

## Hatchmere Butterfly Transects - 2019 Survey Summary

### TOTAL BUTTERFLY SIGHTINGS DURING 2019

#### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

The following table lists those butterfly species whose confirmed range covers the Cheshire and Wirral areas (as determined by the latest “Cheshire and Wirral Butterfly Report 2006” produced by Butterfly Conservation).

| Butterfly Species         | Sightings | Butterfly Species                    | Sightings |
|---------------------------|-----------|--------------------------------------|-----------|
| Small Skipper             | 0         | <b>Holly Blue</b>                    | <b>2</b>  |
| Large Skipper             | 0         | White Admiral (*1)                   | 0         |
| Dingy Skipper (*1)        | 0         | <b>Red Admiral</b>                   | <b>3</b>  |
| Long-tailed Blue (*2)     | 0         | <b>Painted Lady (*2)</b>             | <b>2</b>  |
| Silver-studded Blue (*)   | 0         | <b>Small Tortoiseshell</b>           | <b>1</b>  |
| Clouded Yellow (*2)       | 0         | Camberwell Beauty (*2)               | 0         |
| <b>Brimstone</b>          | <b>61</b> | <b>Peacock</b>                       | <b>11</b> |
| Large White               | 0         | <b>Comma</b>                         | <b>1</b>  |
| Small White               | 0         | Small Pearl Bordered Fritillary (*3) | 0         |
| <b>Green-veined White</b> | <b>16</b> | Small Heath (*1)                     | 0         |
| <b>Orange Tip</b>         | <b>17</b> | Dark Green Fritillary (*1)           | 0         |
| Green Hairstreak          | 0         | Silver washed Fritillary (*1)        | 0         |
| Purple Hair Streak        | 0         | <b>Speckled Wood</b>                 | <b>26</b> |
| White-letter Hairstreak   | 0         | Wall Brown (*1)                      | 0         |
| Small Copper              | 0         | Common Blue                          | 0         |
| Ringlet (*1)              | 0         | Grayling (*1)                        | 0         |
| <b>Meadow Brown</b>       | <b>1</b>  | Gatekeeper                           | 0         |

(\*1) – Very localized species unlikely to exist at Hatchmere

(\*2) – Migratory species which reaches northern regions only in good years

(\*3) – Reintroduced at specific sites in the UK

## Hatchmere Butterfly Transects - 2019 Survey Summary

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

The following table lists those butterfly species whose confirmed range covers the Cheshire and Wirral areas.

| Butterfly Species         | Sightings | Butterfly Species                    | Sightings |
|---------------------------|-----------|--------------------------------------|-----------|
| <b>Small Skipper</b>      | <b>1</b>  | Holly Blue                           | 0         |
| <b>Large Skipper</b>      | <b>2</b>  | White Admiral (*1)                   | 0         |
| Dingy Skipper (*1)        | 0         | Red Admiral                          | 0         |
| Long-tailed Blue (*2)     | 0         | <b>Painted Lady (*2)</b>             | <b>9</b>  |
| Silver-studded Blue (*3)  | 0         | <b>Small Tortoiseshell</b>           | <b>2</b>  |
| Clouded Yellow (*2)       | 0         | Camberwell Beauty (*2)               | 0         |
| <b>Brimstone</b>          | <b>1</b>  | <b>Peacock</b>                       | <b>6</b>  |
| <b>Large White</b>        | <b>1</b>  | <b>Comma</b>                         | <b>2</b>  |
| <b>Small White</b>        | <b>5</b>  | Small Pearl Bordered Fritillary (*1) | 0         |
| <b>Green-veined White</b> | <b>15</b> | Small Heath (*1)                     | 0         |
| Orange Tip                | 0         | Dark Green Fritillary (*1)           | 0         |
| Green Hairstreak          | 0         | Silver washed Fritillary (*1)        | 0         |
| Purple Hair Streak        | 0         | <b>Speckled Wood</b>                 | <b>11</b> |
| White-letter Hairstreak   | 0         | Wall Brown (*1)                      | 0         |
| Small Copper              | 0         | Common Blue                          | 0         |
| Ringlet (*1)              | 0         | Grayling (*1)                        | 0         |
| <b>Meadow Brown</b>       | <b>51</b> | <b>Gatekeeper</b>                    | <b>31</b> |

(\*1) – Very localized species unlikely to be found at Hatchmere

(\*2) – Migratory species which reaches northern regions only in good years

(\*3) – Re-introduced at specific sites in the UK

## Hatchmere Butterfly Transects - 2019 Survey Summary

### MONTHLY SUMMARIES

APRIL 2019

HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES



*Fig 1: Brimstones dominated this month*

Due to an unseasonably warm start to spring this year it was possible to perform the first butterfly survey a week earlier than normal (28<sup>th</sup> March). Most of the month was dominated by warm and sunny weather with temperatures ranging from 14°C to 21°C. However, storm Hannah brought very wet and windy conditions at the end of the month.

A total of 58 butterflies were seen during the April surveys, the majority of which were **Brimstones**. Also seen were **Orange Tips**, **Green-veined Whites**, **Peacocks** and **Speckled Woods**.

In addition to the butterflies, the following wildlife was also seen during April; chiffchaff, jays, woodpeckers, wrens, blue tits, great tits and blackcaps in the woodland sections and tufted duck on the Mere. The reserve was busy during the Easter holidays which coincided with the best of the weather.

## Hatchmere Butterfly Transects - 2019 Survey Summary

MAY 2019

HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

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*Fig 2: Confirmation of Brimstones breeding on site*

The month started (and ended) with cold, windy and wet weather but warmed up during the middle of the month with temperatures ranging from 15°C to 20°C.

A total of 31 butterflies were seen during the May surveys, the majority of which were **Brimstones**. Also seen were **Orange Tips**, **Green-veined Whites** and **Speckled Woods** and the first **Holly Blue** of the season.

It was exciting to be able to confirm that Brimstones are breeding on the wet heathland section of the site when a Brimstone was observed laying eggs on the alder buckthorn and courtship behaviour was seen in the forest sections.

In addition to the butterflies, the following wildlife was also seen during May; whitethroat, jays, wrens, and blackcaps as well as a large number of large red damselflies throughout the site. The first cuckoo was also heard this month.



## Hatchmere Butterfly Transects - 2019 Survey Summary

JUNE 2019

### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

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*Fig 3: Brimstones were the only species seen this month*

June started with warm settled weather and the Brimstones were still displaying courtship and laying behaviour on the wet heathland. However, the weather turned increasingly cold, cloudy and wet and a survey could not be performed during the second week of the month. Although the temperatures increased to more normal levels (18°C – 20°C) towards the end of the month it was still wet and no further butterflies were seen on subsequent surveys.

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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*Fig 4: Meadow Browns mating behaviour*

The new Hatchmere Extension Butterfly Transect was set up during week 13 of the 2019 butterfly season (27<sup>th</sup> June 2019) on the extension to the Hatchmere Nature Reserve owned by Cheshire Wildlife Trust and currently being managed as a private nature reserve. The site primarily consists of a large grass meadow with a brook running alongside a heavily forested area. The Transect is a circular route covering the meadow and brook areas and has been divided into 4 sections (see the “Transect Walk Routes” section of this document for more details).

## **Hatchmere Butterfly Transects - 2019 Survey Summary**

The initial survey was performed during the final week of June on a hot sunny day (21°C) when **19** butterflies were seen. The predominant species was the **Meadow Brown** of which 11 individuals were seen during the survey. A **Small Skipper**, a **Large Skipper**, a **Painted Lady**, a **Speckled Wood** and a number of **Red Admirals** were also seen.

## Hatchmere Butterfly Transects - 2019 Survey Summary

JULY 2019

### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

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*Fig 5: A greater variety of butterflies seen this month including this Painted Lady*

July was a month of weather extremes with interspersed periods of heat wave conditions and heavy thunder storms. Consequently the pattern of butterfly emergence seen in previous years was disrupted. Where in 2018, July was dominated by Green-veined White and Speckled Wood butterflies, these species were absent on the reserve until the last week in July 2019 and even then they were only seen in very small numbers.

Although the total number of butterflies seen in July was barely into double figures, a greater variety of butterflies were seen than during July 2018; Red Admiral, Painted Lady, Comma and Meadow Brown

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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*Fig 6: The Gatekeeper dominated towards the end of the month*

The site continued to host a profusion of butterflies this month with the first sightings of **Commas, Green-veined Whites, Gatekeeper** and **Peacocks**. **Meadow Browns** continue to thrive and were only surpassed by the **Gatekeeper** in numbers during the last week in July. Although **Large Skippers** were still seen in July, no other sightings of the **Small Skipper** were made.

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AUGUST 2019

### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

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*Fig 7: Mostly Green-veined Whites were seen this month*

Weather extremes continued into August with the month being one of the wettest Augusts on record. However, there were a number of heat waves during the month with temperatures reaching the mid 30s. The weather conditions appear to have been particularly favourable to the Vanessids and Admirals with large numbers of **Painted Ladies**, **Peacocks**, **Small Tortoiseshells** and **Red Admirals** seen in gardens (mine included). Unfortunately the same does not appear to have been true for the **Green-veined Whites** and **Speckled Woods** (normally the main species seen in Hatchmere at this time of year) whose numbers remained similar to last year.

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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*Fig 8: The first Brimstone was seen this month*

**Meadow Browns**, **Green-veined Whites** and **Gatekeepers** continued to thrive this month with **Painted Ladies**, **Commas**, **Small Whites** and **Peacocks** also seen. The first **Brimstone** was seen on sight this month also.

## Hatchmere Butterfly Transects - 2019 Survey Summary

SEPTEMBER 2019

### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

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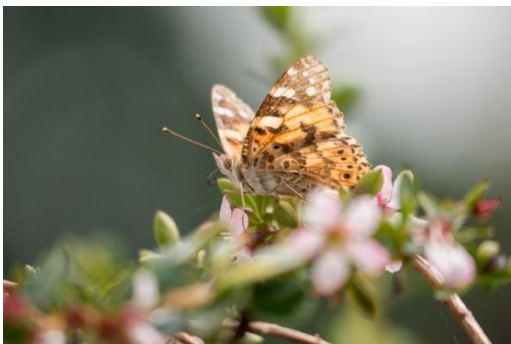
*Fig 9: Mostly Speckled Woods were seen this month*

September was another month of mixed weather which began with warm and sunny days but ended with cold, wet and cloudy conditions. In fact, no survey could be performed during the last week of the butterfly season as no day that week met the criteria for butterfly counting.

**Speckled Woods** became the dominant species this month with only this species seen during the last 2 surveys. **Red Admirals**, **Small Tortoiseshells** and **Brimstones** were also seen at the start of the month, although only seen in very low numbers.

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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*Fig 10: Painted Ladies continued to thrive this month*

Early September saw the end of the **Meadow Browns** and **Gatekeepers** although **Speckled Woods**, **Painted Ladys**, **Small Whites** and **Green-veined Whites** continued to thrive on site.

## Hatchmere Butterfly Transects - 2019 Survey Summary

### YEAR ON YEAR COMPARISON

#### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

This table summarizes the sightings of each butterfly species **year-on-year** on the formally surveyed Hatchmere site.

*Note: the Hatchmere Butterfly Transect was set up in August 2017 so only the last 6 weeks of the butterfly season were recorded that year.*

| Butterfly Species   | 2017 Count | 2018 Count | 2019 Count |
|---------------------|------------|------------|------------|
| Orange Tip          | 0          | 15         | 17         |
| Brimstone           | 2          | 45         | 61         |
| Green-Veined White  | 3          | 66         | 16         |
| Large White         | 3          | 9          | 0          |
| Holly Blue          | 0          | 2          | 2          |
| Speckled Wood       | 0          | 44         | 26         |
| Small Tortoiseshell | 1          | 2          | 1          |
| Peacock             | 2          | 3          | 11         |
| Painted Lady        | 0          | 0          | 2          |
| Meadow Brown        | 0          | 0          | 1          |
| Red Admiral         | 3          | 0          | 3          |
| Comma               | 0          | 1          | 1          |
| <b>TOTAL</b>        | <b>14</b>  | <b>187</b> | <b>141</b> |

#### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

As the Hatchmere Extension transect is only surveyed informally, a statistically meaningful comparison will not be possible for this site.

## Hatchmere Butterfly Transects - 2019 Survey Summary

### SUMMARY FIELD RECORDS (BY MONTH) FOR 2019

#### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

This table summarizes the sightings of each butterfly species **by month** during 2019 (on the formally surveyed Hatchmere site).

| <b>Butterfly Species</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> | <b>TOTAL</b> |
|--------------------------|------------|------------|------------|------------|------------|------------|--------------|
| Orange Tip               | 15         | 2          | 0          | 0          | 0          | 0          | <b>17</b>    |
| Brimstone                | 25         | 25         | 7          | 3          | 0          | 1          | <b>61</b>    |
| Green-Veined White       | 4          | 1          | 0          | 4          | 7          | 0          | <b>16</b>    |
| Holly Blue               | 0          | 1          | 0          | 0          | 1          | 0          | <b>2</b>     |
| Speckled Wood            | 5          | 2          | 0          | 1          | 4          | 14         | <b>26</b>    |
| Small Tortoiseshell      | 0          | 0          | 0          | 0          | 0          | 1          | <b>1</b>     |
| Peacock                  | 9          | 0          | 0          | 0          | 2          | 0          | <b>11</b>    |
| Red Admiral              | 0          | 0          | 0          | 1          | 0          | 2          | <b>3</b>     |
| Painted Lady             | 0          | 0          | 0          | 2          | 0          | 0          | <b>2</b>     |
| Meadow Brown             | 0          | 0          | 0          | 1          | 0          | 0          | <b>1</b>     |
| Comma                    | 0          | 0          | 0          | 1          | 0          | 0          | <b>1</b>     |
| <b>TOTAL</b>             | <b>58</b>  | <b>31</b>  | <b>7</b>   | <b>13</b>  | <b>14</b>  | <b>18</b>  | <b>141</b>   |

## Hatchmere Butterfly Transects - 2019 Survey Summary

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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This table summarizes the sightings of each butterfly species **by month** during 2019 (on the Hatchmere Extension site). *Note: The Transect was set up in week 13 of the 2019 butterfly season (27<sup>th</sup> June 2019).*

| <b>Butterfly Species</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> | <b>TOTAL</b> |
|--------------------------|------------|------------|------------|------------|------------|------------|--------------|
| Meadow Brown             | n/a        | n/a        | 11         | 31         | 7          | 2          | <b>51</b>    |
| Red Admiral              | n/a        | n/a        | 3          | 3          | 0          | 0          | <b>6</b>     |
| Small Skipper            | n/a        | n/a        | 1          | 0          | 0          | 0          | <b>1</b>     |
| Large Skipper            | n/a        | n/a        | 1          | 1          | 0          | 0          | <b>2</b>     |
| Painted Lady             | n/a        | n/a        | 1          | 1          | 1          | 6          | <b>9</b>     |
| Speckled Wood            | n/a        | n/a        | 1          | 2          | 2          | 6          | <b>11</b>    |
| Comma                    | n/a        | n/a        | 0          | 1          | 1          | 0          | <b>2</b>     |
| Gatekeeper               | n/a        | n/a        | 0          | 25         | 6          | 0          | <b>31</b>    |
| Green-veined White       | n/a        | n/a        | 0          | 4          | 8          | 3          | <b>15</b>    |
| Large White              | n/a        | n/a        | 0          | 1          | 0          | 0          | <b>1</b>     |
| Peacock                  | n/a        | n/a        | 0          | 3          | 3          | 0          | <b>6</b>     |
| Brimstone                | n/a        | n/a        | 0          | 0          | 1          | 0          | <b>1</b>     |
| Small Tortoiseshell      | n/a        | n/a        | 0          | 0          | 0          | 2          | <b>2</b>     |
| Small White              | n/a        | n/a        | 0          | 0          | 1          | 4          | <b>5</b>     |
| <b>TOTAL</b>             | <b>n/a</b> | <b>n/a</b> | <b>18</b>  | <b>72</b>  | <b>30</b>  | <b>23</b>  | <b>143</b>   |



## Hatchmere Butterfly Transects - 2019 Survey Summary

### SUMMARY FIELD RECORDS (BY SECTION) FOR 2019

#### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

This table summarizes the sightings of each butterfly species **by transect section** during 2019 (on the formally surveyed Hatchmere site). *See the end of this report for details of the Transect walk route and sections.*

| Butterfly Species   | Sections |           |          |          |           |          |          |           |           | TOTAL      |
|---------------------|----------|-----------|----------|----------|-----------|----------|----------|-----------|-----------|------------|
|                     | 1        | 2         | 3        | 4        | 5         | 6        | 7        | 8         | 9         |            |
| Orange Tip          | 2        | 1         | 0        | 1        | 0         | 1        | 0        | 4         | 8         | 17         |
| Brimstone           | 3        | 10        | 5        | 3        | 0         | 2        | 0        | 37        | 1         | 61         |
| Green-Veined White  | 2        | 7         | 1        | 0        | 0         | 0        | 0        | 2         | 4         | 16         |
| Holly Blue          | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 2         | 0         | 2          |
| Speckled Wood       | 2        | 1         | 2        | 0        | 11        | 0        | 0        | 0         | 10        | 26         |
| Small Tortoiseshell | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 1         | 0         | 1          |
| Peacock             | 0        | 1         | 0        | 1        | 0         | 2        | 0        | 6         | 1         | 11         |
| Meadow Brown        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 1         | 0         | 1          |
| Painted Lady        | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 2         | 0         | 2          |
| Red Admiral         | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 3         | 0         | 3          |
| Comma               | 0        | 0         | 0        | 0        | 0         | 0        | 0        | 1         | 0         | 1          |
| <b>TOTAL</b>        | <b>9</b> | <b>20</b> | <b>8</b> | <b>5</b> | <b>11</b> | <b>5</b> | <b>0</b> | <b>59</b> | <b>24</b> | <b>141</b> |

## Hatchmere Butterfly Transects - 2019 Survey Summary

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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This table summarizes the sightings of each butterfly species **by transect section** during 2019 (on the Hatchmere Extension site). *See the end of this report for details of the Transect walk route and sections. Note: The Transect was not set up until week 13 of the 2019 butterfly season (27<sup>th</sup> June 2019).*

| Butterfly Species   | Sections  |           |          |            | TOTAL      |
|---------------------|-----------|-----------|----------|------------|------------|
|                     | 1         | 2         | 3        | 4          |            |
| Meadow Brown        | 5         | 5         | 0        | 41         | <b>51</b>  |
| Red Admiral         | 2         | 0         | 1        | 3          | <b>6</b>   |
| Small Skipper       | 0         | 0         | 0        | 1          | <b>1</b>   |
| Large Skipper       | 1         | 1         | 0        | 0          | <b>2</b>   |
| Painted Lady        | 1         | 0         | 0        | 8          | <b>9</b>   |
| Speckled Wood       | 5         | 0         | 2        | 4          | <b>11</b>  |
| Comma               | 0         | 1         | 0        | 1          | <b>2</b>   |
| Gatekeeper          | 0         | 0         | 0        | 31         | <b>31</b>  |
| Green-veined White  | 0         | 1         | 0        | 14         | <b>15</b>  |
| Large White         | 0         | 1         | 0        | 0          | <b>1</b>   |
| Peacock             | 0         | 2         | 0        | 4          | <b>6</b>   |
| Small Tortoiseshell | 0         | 0         | 0        | 2          | <b>2</b>   |
| Small White         | 0         | 0         | 0        | 5          | <b>5</b>   |
| Brimstone           | 0         | 0         | 0        | 1          | <b>1</b>   |
| <b>TOTAL</b>        | <b>14</b> | <b>11</b> | <b>3</b> | <b>115</b> | <b>143</b> |

## Hatchmere Butterfly Transects - 2019 Survey Summary

### TRANSECT WALK ROUTES

#### HATCHMERE TRANSECT – SURVEYED FORMALLY UNDER BUTTERFLY CONSERVATION RULES

The Transect comprises 9 sections as follows:

| Section  | Location  | Habitat          |
|----------|---|------------------|
| <b>1</b> | <b>SJ 553 723 To SJ 551 722</b><br>From the B5152 access to the Hatchmere Nature Reserve, along the forest path to the cleared wet woodland area on the left at SJ 551 722. | Deciduous Forest |
| <b>2</b> | <b>SJ 551 722 To SJ 551 723</b><br>Step into the wet woodland area (at the large holly bush) for 1 minute and then return to the forest path                                | Wet Woodland     |
| <b>3</b> | <b>SJ 551 723 To SJ 549 723</b><br>Follow the forest path to the footbridge at SJ 549 723   | Deciduous Forest |
| <b>4</b> | <b>SJ 549 723 To SJ 550 722</b><br>Follow the forest path to the bridge at SJ 550 722   | Deciduous Forest |
| <b>5</b> | <b>SJ 550 722 To SJ 551 721</b><br>Follow the forest path to the information sign on the left at SJ 551 721   | Deciduous Forest |
| <b>6</b> | <b>SJ 551 721</b><br>Turn left at the sign and step into the wet woodland area as far as the warning sign and then return back to the information sign                      | Wet Woodland     |
| <b>7</b> | <b>SJ 551 721 To SJ 551 720</b><br>Follow the forest path straight ahead to the wet heathland area at SJ 551 720  | Deciduous Forest |
| <b>8</b> | <b>SJ 551 720 To SJ 552 719</b><br>Follow the path along the fence to the far right of the heathland area   | Wet Heathland    |
| <b>9</b> | <b>SJ 552 719</b><br>At the end of the wet heathland follow the right-hand forest path to Ashton Road   | Deciduous Forest |

## Hatchmere Butterfly Transects - 2019 Survey Summary

### HATCHMERE EXTENSION TRANSECT – SURVEYED INFORMALLY

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The Transect comprises 4 sections as follows:

| <b>Section</b> | <b>Location</b>  | <b>Habitat</b>             |
|----------------|--|----------------------------|
| <b>1</b>       | <b>Gate to Barn</b><br>From the wooden gate posts at the start of the Reserve to the grass meadow in front of the barn | Forest Ride & Grass Meadow |
| <b>2</b>       | <b>Barn to Brook</b><br>From the barn cross the meadow on the right hand side to the brook.                            | Grass Meadow               |
| <b>3</b>       | <b>Along Brook</b><br>Cross and follow the Brook to the foot bridge  | Wet Forest Ride            |
| <b>4</b>       | <b>Foot Bridge to Barn</b><br>Cross the foot bridge and follow the tree line across the meadow back to the barn.       | Grass Meadow               |

## Hatchmere Butterfly Transects - 2019 Survey Summary

### BUTTERFLY CONSERVATION FIELD GUIDANCE FOR BUTTERFLY TRANSECTS

The following guidelines (*UKBMS G2 Transect field guidance notes*) are issued by Butterfly Conservation for Butterfly Surveyors. These guidelines have been followed during the Hatchmere Transect surveys.

#### WHEN TO MAKE TRANSECT COUNTS

**Time of year:** A full season's transect counts take place once a week for 26 weeks from the beginning of April to the end of September. Week 'one' runs from 1st-7th April, week 'two' 8th-14th April and so on, until week 'twenty-six' which runs from 23rd-29th September. You can record earlier than 1st April (25th-31st March is week 0, 18th-24th March is Week -1 etc.) or after September (30th Sept- 6th Oct is Week 27, and so on). If the weather conditions are suitable, you should record even if there are not likely to be any butterflies present (e.g. early/late in the season) – a negative result is still a result.

**How many weeks:** As many weeks should be walked as possible, as gaps reduce the quality of the data and too many can render it virtually useless. The more gaps the less species-indices can be calculated. Where it has been decided that a transect is aimed at a single, usually rare, species (or sometimes for two or three species) then weeks should be walked which cover the flight period(s), with zero counts at either end.

**Time of week:** You can record on any day of the week, but should aim to walk the transect on the first opportunity that the weather is suitable (some weeks you may not get a second chance!). You only need to record more than once a week if the weather on your first walk did not meet the criteria.

**Time of day:** Transect counts should ideally be made between 10:45 and 15:45 hours, though between 10:00 and 17:00 hours is usually allowable, though butterfly activity may drop off rapidly during the late afternoon so later times should be avoided.

**Weather conditions:** Transect walks should only be carried out in warm and at least bright weather, with no more than moderate winds and not when it is raining. The minimum criteria are either 13-17°C with at least 60% sunshine, or if there is no sunshine the temperature must be 17°C or above. Wind speed (Beaufort scale) should be no more than 5 (24mph) unless the transect route is sheltered from the wind. Do not record if the temperature is below 13°C except in northern upland areas where, if butterflies are active, they may be recorded in temperatures down to 11°C. Check that conditions are suitable before you start the Transect, and that if the temperature is less than 17°C there is likely to be sufficient sun.