

# CITIZEN SCIENCE MONITORING DATASHEET: BUTTERFLIES

**STEP 1**—Photocopy or print copies of this datasheet in advance ([www.xerces.org/csmdatasheets](http://www.xerces.org/csmdatasheets))

## STEP 2—Site Details

SITE NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

PRIMARY OBSERVER: \_\_\_\_\_ DATA RECORDER: \_\_\_\_\_

OTHER OBSERVERS \_\_\_\_\_

## STEP 3—Monitoring

Note the start time and weather conditions for each transect. Set timer and hit start when ready. Note any butterflies you see and can identify to your confidence level. Walk each transect at a consistent pace. Remember to note end time and weather conditions after completing each transect.

### BUTTERFLY MORPHOGROUPS:

|                     |                      |                       |                                  |
|---------------------|----------------------|-----------------------|----------------------------------|
| Grass skipper       | Blue                 | Checkerspot/ crescent | Other brush-foot (i.e., monarch) |
| Spreadwing skipper  | Copper               | Comma                 | Satyr (e.g., nymph, ringlet)     |
| Whites & orange-tip | Hairstreak           | Fritillary            | Tortoiseshell                    |
| Sulphur             | Metalmark (uncommon) | Lady/ admiral         | Swallowtail/ parnassian          |

### WEATHER CONDITIONS & OBSERVATIONS:

**Important:** Observe, identify and note the butterflies within 0–5 meters on either side of your route. Do not count butterflies that fly in from behind to avoid possibly counting the same individual twice.

| TRANSECT 1                    |   | TRANSECT 2                                |   | TRANSECT 3                                |   | TRANSECT 4                                |   |
|-------------------------------|---|---|---|---|---|---|---|
| START                         | END                                       | START                                     | END                                       | START                                     | END                                       | START                                     | END                                       |
| TIME:                         |   |   |   |   |   |   |   |
| SHADE TEMP:                   | °C / °F                                   | °C / °F                                   | °C / °F                                   | °C / °F                                   | °C / °F                                   | °C / °F                                   | °C / °F                                   |
| WIND*:<br><i>(circle one)</i> | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     |
| SKY:<br><i>(circle one)</i>   | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast |

\*Use the Beaufort Wind Scale to estimate wind speed (see Butterfly Monitoring Protocol for details)

| #                               |   | TRANSECT 1 | TRANSECT 2 | TRANSECT 3 | TRANSECT 4 |
|---------------------------------|---|------------|------------|------------|------------|
| MORPHOGROUP OR SPECIES OBSERVED | 1 |            |            |            |            |
|                                 | 2 |            |            |            |            |
|                                 | 3 |            |            |            |            |
|                                 | 4 |            |            |            |            |
|                                 | 5 |            |            |            |            |
|                                 | 6 |            |            |            |            |
|                                 | 7 |            |            |            |            |
|                                 | 8 |            |            |            |            |

### STEP 3—Monitoring, *continued*

#### BUTTERFLY MORPHOGROUPS:

|                     |                      |                       |                                  |
|---------------------|----------------------|-----------------------|----------------------------------|
| Grass skipper       | Blue                 | Checkerspot/ crescent | Other brush-foot (i.e., monarch) |
| Spreadwing skipper  | Copper               | Comma                 | Satyr (e.g., nymph, ringlet)     |
| Whites & orange-tip | Hairstreak           | Fritillary            | Tortoiseshell                    |
| Sulphur             | Metalmark (uncommon) | Lady/ admiral         | Swallowtail/ parnassian          |

**OBSERVATIONS, *continued*:** (attach any Additional Monitoring Sheet(s) if necessary, available at: [www.xerces.org/csmdatasheets](http://www.xerces.org/csmdatasheets))

|                                 |    | TRANSECT 1 | TRANSECT 2 | TRANSECT 3 | TRANSECT 4 |
|---------------------------------|----|------------|------------|------------|------------|
| MORPHOGROUP OR SPECIES OBSERVED | 9  |            |            |            |            |
|                                 | 10 |            |            |            |            |
|                                 | 11 |            |            |            |            |
|                                 | 12 |            |            |            |            |
|                                 | 13 |            |            |            |            |
|                                 | 14 |            |            |            |            |
|                                 | 15 |            |            |            |            |
|                                 | 16 |            |            |            |            |
|                                 | 17 |            |            |            |            |
|                                 | 18 |            |            |            |            |
|                                 | 19 |            |            |            |            |
|                                 | 20 |            |            |            |            |

### STEP 4—Field notes, *including*:

- Information on the plant community, such as invasive plants, available host and nectar plants, or conifer encroachment;
- Threats to the site or butterfly resources, which may include the presence of livestock, other people, or another species;
- General site conditions, including habitat changes or land management practices;
- Butterfly population details, such as unusual behavior, additional butterfly species not listed on form, etc.

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Example

# CITIZEN SCIENCE MONITORING DATASHEET: BUTTERFLIES

**STEP 1**—Photocopy or print copies of this datasheet in advance ([www.xerces.org/csmdatasheets](http://www.xerces.org/csmdatasheets))

## STEP 2—Site Details

SITE NAME: Johnson Creek Corridor

DATE: July 30, 2015

PRIMARY OBSERVER: Candace Fallon

DATA RECORDER: Michelle Blackburn

OTHER OBSERVERS: \_\_\_\_\_

## STEP 3—Monitoring

Note the start time and weather conditions for each transect. Set timer and hit start when ready. Note any butterflies you see and can identify to your confidence level. Walk each transect at a consistent pace. Remember to note end time and weather conditions after completing each transect.

### BUTTERFLY MORPHOGROUPS:

- |                     |                      |                       |                                  |
|---------------------|----------------------|-----------------------|----------------------------------|
| Grass skipper       | Blue                 | Checkerspot/ crescent | Other brush-foot (i.e., monarch) |
| Spreadwing skipper  | Copper               | Comma                 | Satyr (e.g., nymph, ringlet)     |
| Whites & orange-tip | Hairstreak           | Fritillary            | Tortoiseshell                    |
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### WEATHER CONDITIONS & OBSERVATIONS:

**Important:** Observe, identify and note the butterflies within 0–5 meters on either side of your route. Do not count butterflies that fly in from behind to avoid possibly counting the same individual twice.

| TRANSECT 1   |   | TRANSECT 2                                |   | TRANSECT 3                                |   | TRANSECT 4                                |   |
|--|---|---|---|---|---|---|---|
| START  | END                                       | START                                     | END                                       | START                                     | END                                       | START                                     | END                                       |
| TIME: 10:02 am   | 10:26 am                                  | 10:43 am                                  | 11:01 am                                  | 11:35 am                                  | 11:52 am                                  | 1:00 pm                                   | 1:17 pm                                   |
| SHADE TEMP: 70 °C/°F   | 72 °C/°F                                  | 74 °C/°F                                  | 75 °C/°F                                  | 76 °C/°F                                  | 78 °C/°F                                  | 84 °C/°F                                  | 84 °C/°F                                  |
| WIND*: 0 MPH / 1–3 MPH<br>(circle one)<br>4–6 MPH / 7–10 MPH   | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     | 0 MPH / 1–3 MPH<br>4–6 MPH / 7–10 MPH     |
| SKY: (circle one)<br>clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast | clear<br>partly cloudy<br>bright overcast |

\*Use the Beaufort Wind Scale to estimate wind speed (see Butterfly Monitoring Protocol for details)

| # | TRANSECT 1          | TRANSECT 2      | TRANSECT 3              | TRANSECT 4          |
|---|---------------------|-----------------|-------------------------|---------------------|
| 1 | swallowtail         | red admiral     | Cab. white (puddling)   | purple copper       |
| 2 | skippers            | lady (western?) | sulphurs (puddling)     | skippers            |
| 3 | grey hairstreak     | skippers        | skippers (puddling)     | silver-spot skipper |
| 4 | eastern-tailed blue | grey hairstreak | swallowtails (puddling) | small blue          |
| 5 | purple copper       | Sara orange-tip |                         | cabbage white       |
| 6 |                     | comma           |                         | swallowtail         |
| 7 |                     |                 |                         |                     |
| 8 |                     |                 |                         |                     |

Example

**STEP 3**—Monitoring, *continued*

**BUTTERFLY MORPHOGROUPS:**

|                     |                      |                       |                                  |
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**OBSERVATIONS, *continued*:** (attach any Additional Monitoring Sheet(s) if necessary, available at: [www.xerces.org/csmdatasheets](http://www.xerces.org/csmdatasheets))

|                                 |    | TRANSECT 1 | TRANSECT 2 | TRANSECT 3 | TRANSECT 4 |
|---------------------------------|----|------------|------------|------------|------------|
| MORPHOGROUP OR SPECIES OBSERVED | 9  |            |            |            |            |
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|                                 | 12 |            |            |            |            |
|                                 | 13 |            |            |            |            |
|                                 | 14 |            |            |            |            |
|                                 | 15 |            |            |            |            |
|                                 | 16 |            |            |            |            |
|                                 | 17 |            |            |            |            |
|                                 | 18 |            |            |            |            |
|                                 | 19 |            |            |            |            |
| 20                              |    |            |            |            |            |

**STEP 4**—Field notes, *including*:

- Information on the plant community, such as invasive plants, available host and nectar plants, or conifer encroachment;
- Threats to the site or butterfly resources, which may include the presence of livestock, other people, or another species;
- General site conditions, including habitat changes or land management practices;
- Butterfly population details, such as unusual behavior, additional butterfly species not listed on form, etc.

Johnson Creek Corridor habitat restoration in progress, some paths unavailable.

Transect 1 has some slight weedy forb encroachment.

observed numerous groups mud-puddling in transect 3.

Took a break between transects 3 and 4 for lunch.