



Butterfly Survey Protocol

Butterfly surveys are a way of monitoring the species diversity present at a site from year to year. PWC is establishing base-line data for its conservation plantings and restoration projects to see which butterfly species they support.

SURVEY SITES: PWC has a multitude of sites where habitat has been restored and/or created using native plants. As primary producers, native plants are critical to supporting animal and insect populations by providing food. Additionally, some native plants are the host species for threatened insects such as the Monarch Butterfly.

PWC has identified the following sites for Butterfly Surveys:

- Jacob Reiff Park, Lower Salford
- Lenape Park, Schwenksville
- Green Lane Park Red Trail, Green Lane
- Robert C. Bucher Park, Lower Salford
- Cuddy Park, Perkiomenville
- Perkiomen Watershed Conservancy Pawpaw Orchard, Schwenksville



ESTABLISHING A TRANSECT: The identified route (transect) provides a fair representation of the habitats and other features present at a given site. It may also include areas that may be managed in the future allowing us to detect changes in species and effects of management. This route will be the established route and should be followed year to year for consistency.

For survey sites with smaller plantings a walking transect may not be possible and/or necessary. Observation points will be established where the majority of the survey will occur. Surveyors will stand at the designated observation point for 5 minutes at each point.

MONITORING: Surveys along the established transect or observation point should be completed minimum every two weeks beginning in April and ending in September. Data collection should occur between the hours of 10:00 am and 3:00 pm. Surveys should not be completed in inclement weather.

DATA COLLECTION: Species should be identified to the best of the observers ability. Butterflies may be recorded by Genus or general group (i.e. Fritillary sp.) if species level identification is inconclusive. When possible, note the plant species a butterfly is interacting with is the appropriate column on the survey sheet.



IDENTIFYING A SPECIES:

- **SIZE:** How many inches is the wingspan?
- **SHAPE:** Is there a tail? Are the wings jagged or scalloped?
- **POSTURE:** How is it sitting? Wings folded up tight, spread wide, or half open in a V shape?
- **FLIGHT STYLE:** Is it flying with steady flaps, a quick flutter or completely erratic?
- **FIELD MARKS:** Is there a spot of color or other distinct marking?

SUBMITTING SURVEY DATA: Volunteers can submit data from Butterfly Surveys to the Conservancy using Google Drive and Google Photos. A shared Google Drive folder titled “Resources for Butterfly Survey Volunteers” is shared with all Butterfly Survey participants. This folder contains important survey tools including transect maps, data sheets, protocol sheets, etc. Volunteers can record data from surveys on the site specific excel spreadsheets provided in the folder. Volunteers should select the spreadsheet for the site they are surveying and input data in the appropriate “week of tab” at the bottom of the spreadsheet. Data sheets can be edited in the field while conducting surveys by using a smartphone.

Volunteers are encouraged to take photos of their site and butterflies observed during surveys. Photos from surveys can be uploaded to shared Google Photos albums. A unique album will be created for each survey location.

A FEW FINAL NOTES: Have fun and enjoy being present! Do not stress about identification mistakes. Do your best and remember we survey throughout the year to create consistent data. If you would like and are able, take photos of butterflies you do not recognize.

It is best to wear long pants and clothing and footwear appropriate for your field site. Please do not wear/use insect repellent or bug spray while conducting Butterfly Surveys, but please do a thorough tick check after completing surveys.

ITEMS TO CONSIDER BRINGING: Water, hat, binoculars, camera, butterfly identification guide (we recommend “Butterflies of Pennsylvania” by Monroe and Wright and “Peterson Field Guide To Moths Of Northeastern North America" by David Beadle and Seabrooke Leckie).

Reference: UK Butterfly Monitoring Scheme