

## **Butterflying in the time of Corona**

### **Citizen Science Opportunities abound!**

Here at WBA we take both our field work and our data collection seriously. The field trips WBA leads help us monitor presence/absence and relative abundance of Washington's butterflies.

Citizen science, based on your active participation, is key to helping WBA meet our objectives of education, outreach and conservation. Without many formal field trips this season, the WBA board is initiating a new effort—one designed to keeping you, fellow butterfly enthusiasts, engaged with butterflies across our environment while concurrently contributing to our development of a baseline understanding of where and how common our butterflies are on the landscape.

We have come up with a variation of field day competition used by bird watchers. One challenge birders have is a “back yard big day”. This has an individual pick a day and then see how many difference species of birds they can detect on their property—or a site of their choosing.

We would like to take that concept and modify it for butterflies in the time of Corona—into a “**County/Month Big Day**”. There are distinct differences between birds and butterflies. Different butterflies are in their adult stage at various times between spring and fall. No single interval can be found that will have all species in an area all present as adults. Second, within a single yard, or even neighborhood, the absolute number of species of adult butterflies is low.

With these considerations in mind, what we are initiating is a series of county level big days. At least one day a month, this June, July, August **and** September, we would like **you to participate** by going out, safely, to document how many different species you can detect within the county/counties of your choice.

This citizen science opportunity is open to everyone, not just WBA members. The basic rules are: choose whichever part(s) of the county will give you good species abundance and richness at the time you are out, then upload your sightings to eButterfly (details to follow).

You are welcomed and encouraged to do multiple surveys in a given month. You are welcome to do surveys with others in a manner consistent with county COVID requirements. You are welcome to do multiple counties, multiple times, again in a manner consistent with county COVID requirements.

This will give us data from across the state, and helps us focus on many of our common butterflies—as well as the challenge to detect some of more difficult species. One of our conservation objectives is *keeping common species common*. That means we need to monitor our local butterfly populations in our local areas so that we can have some sense of baseline population levels to compare against changes in abundance in the future. When this is done

across the state and built on over time, it will result in a much improved understanding and aid in conservation and restoration efforts.

At the end of the field season, we will organize the data and publish our findings including:

- How many total detections were recorded by WBA citizen scientists
- What were the most commonly detected species, by county
- How many species were detected, by month, by county
- Which counties had zero surveys conducted (where's the love)
- Who detected the most species in a given county, by month?
- Who conducted surveys in the most counties?
- Who saw the most number of species in a given county?
- Who submitted the most surveys
  - Within each month
  - Across the entire season

Bragging rights anyone?

To make this work, WBA is partnering with eButterfly to use their website and database as our tool/data repository. In addition, as we move forward, all of our future field trips and study weekend excursions will be recorded in eButterfly. An additional focus is on getting much of our historical data (e.g., field trip reports, study weekend lists) into the eButterfly database. This is key to helping develop a baseline understanding of what has been and is now on the landscape so we have references for what we find in the future.

eButterfly has been built based on the lessons learned from eBird. Because of this strong citizen science based structure, WBA chose the eButterfly website to use. Their website also allows you to report any associated metadata with the observations—such as information on how many, how long you looked, the type of survey done, etc. This makes the information much more valuable for scientists to use in analysis than simply “presence/absence” as it provides insights into level of effort and detection rates.

Please make an account on eButterfly, see how to record your field findings and metadata and let us know what questions or technical challenges you find. eButterfly is working to modify their web interface so that we can “sign in” as “WBA”—so all our data can be easily analyzed as a set. They are working with us to create a special group flag, but while that programming is under construction, *you need to type “WBA” in the “remarks” section (Step 2)*. eButterfly can then identify the data to analyze with other “WBA” data. We are working directly with eButterfly’s technical team and they are committed to meeting our data collection and recording needs. (Thank you Regina Rochefort!).

There is a tutorial video on eButterfly’s website: <http://www.e-butterfly.org/en/content/webinar-disruption> but it is not done as well as it could be. We will be encouraging them to develop other tutorial info on how to use the tool. WBA will be working on our own set of basic instructions and FAQs. If you have questions, shoot an email to ReginaR or Melanie—at this time they have the most working knowledge of the interface. Also, if you are looking for a project constructing

a good “how to use eButterfly” tutorial would be much appreciated (word doc, PowerPoint, etc.). Both WBA and eButterfly will find it very useful.

We also strongly encourage the use of *iNaturalist* as an online field data repository for more casual butterfly sighting. There is a WBA specific group/project set up there for recording your observations of butterflies and moths. See the related write-up on using iNaturalist by Regina Johnson for more details.

Bumble bee observations can be recorded with *Bumble Bee Watch*, a Xerces sponsored effort. No easy ability for us to have a WBA group set up in that application, but we will inquire. The data can be sorted by location, species and date, so it is a pretty useful tool—but always better with more, and more current, data!