

# Frequently Asked Questions



**Note:** Additional details on many of the questions are found in the volunteer manual and training slides. Please review them if you need additional information.

## Monitoring

Do I need to complete the training in order to monitor?

No. However, the project was designed to be completed by trained volunteers, and you will find it easier to participate if you go through the training. If an in-person training is not available, please view the online training videos or read through the training slides. A volunteer manual and other training materials are also available.

Does it matter if I do incidental observations versus small area surveys?

Both types of observations are helpful. Incidental observations provide useful information about where bees are, as well as the habitats in which they are found. However, they do not provide information on where bees are not found (an important component of producing distribution maps), nor do they provide information on survey effort and number of bees in an area, which is what we need to track if a population is increasing or decreasing over time; all of this is provided by small area surveys. We suggest volunteers submit incidental observations if they are new to the project, developing their skills, short on time or people power, or if the location doesn't allow for full surveying.

How frequently should I monitor for bumble bees?

You can monitor for bumble bees as often as you would like, but we ask that regular monitoring at the same site not be submitted more than once per week.

Is it better to monitor the same site over and over again, or to monitor many sites one time each?

We encourage you to monitor wherever and whenever you are able. Monitoring the same site multiple times will provide data on the phenology of the bees and increase the chances of seeing all bees that are present at that location. Monitoring many sites will help us build an accurate distribution map for our bumble bee species.

What if I don't see any bees when conducting a small area survey?

We still want your results, even if you didn't see any bees! Please enter your small area survey as normal, and select "none" from the species list.

## Identification

How can I tell if a bee is a queen?

You can use size, color pattern, and time of year to decide if a bee is a queen. Because only queens overwinter (technically these are gynes- queens that have not yet started colonies), the first bees of the season will always be queens. Within a species, queens are generally larger than males and workers. For some species, queens and workers are different morphs, meaning they exhibit different color patterns. Check the Resources Page for information on morphs.

Can I use geographic location to determine a species ID?

We do not recommend using your location (e.g. up north; southeast WI) to narrow down possible species. Our species distribution maps reflect existing survey effort and don't necessarily represent the true distribution of the species. One of the major goals of B3 is to create accurate, up-to-date species distribution maps.

How can I use size in species or sex ID?

Size should be one of the last characteristics considered when making an ID. An unusually large bee could be a queen. In some cases, size can be one piece of evidence used to tell certain species apart. For instance, *Bombus rufocinctus* workers range from 9 to 13mm, and *Bombus auricomus* workers range from 16 to 19mm; the difference between 9 and 19mm can be detectable when monitoring, but the difference between 13 and 16mm is difficult to detect. Additionally, size within a species can vary dramatically; *Bombus auricomus* males can be as small as 13mm, while the queens can be as large as 26mm.

## Selecting Photos to Submit

How do I choose which photos to submit?

For each species-sex combination, choose the photos that best show the head, back, and side views for one individual bee. Occasionally, you might need to submit one or two extra photos, but there should be no more than 5 photos per observation.

Do I need to crop my photos before submitting them?

Yes. Please crop your photo so that the bee takes up most of the frame.

My photos are blurry. Should I submit them anyway?

If the best photos you have for a morph are blurry, you should submit them if they still show important identifying features, such as color patterns or a corbicula. If the photo is so blurry that nothing can be distinguished, do not submit it.

## Entering Data

What should I put for the "Directions to site" field?

If your site is located at a street address or intersection, enter that. Otherwise, provide directions for how someone can locate and access the site.

What should I put for the “Details on how to find survey location” field?

Provide sufficient directions for relocating the survey location. This could be “northwest corner of garden,” “20m east of the visitor center,” or for a remote location, it could involve detailed directions for driving, hiking, or boating to the survey location.

I noticed something about the bee, like a corbicula or color pattern, that I wasn’t able to photograph.

What should I do?

Submit your observations, and place any details about the bee’s appearance that are not shown in the photographs in the “Comments about observation” field.

Can I submit historical observations?

Yes! If you have observations from previous years that you have not submitted to another project or platform (like Bumble Bee Watch), you are welcome to submit them to B3. We especially welcome observations from under-surveyed counties or of rare species.

Do I need to submit my observations to multiple projects?

No, there is no need to submit observations to multiple projects. We are happy to share our data with other bumble bee researchers and conservation groups. When an observation is submitted to multiple projects, it adds extra work for scientists and conservation professionals who compile data from many sources and then need to search for and remove duplicate records. If you submit your observations to multiple projects for personal reasons, please add a comment to each observation (on all projects) saying where else the data have been submitted.

## **Verification Process**

Are bumble bee identifications verified by project staff?

Yes, all observations that you submit will be verified by project staff and partners. If our determination of sex or species differs from yours, we will update the identification and provide an explanation in the verification comments.

My observation says “unverified” or “verified” next to it. What does that mean?

All observations are verified by project staff and partners. If we have not yet had a chance to verify an observation, it will show up as “unverified.” Once we have verified the identification of your observations (including changing ID if needed), you will see “verified” next to your observation.

The identify of my bumble bee observation was changed; how do I know why?

If we changed the sex or species of your observation, you can view our explanation by clicking on the hyperlinked species name in the observation. This will take you to the observation details page, where you can view comments from verifiers.

How do I ask a question about one of my verification comments?

If something is unclear, please email us with your question. Be sure to include the survey date, species, and sex so we can find the observation.

When my verification comment says more views are needed to confirm the sex or species, am I supposed to do something?

No, we use that comment to help you understand why we could not confirm the identity of a bee and what to include next time. We follow up via email when we need additional photos to confirm high priority species, but we are not able to re-verify the identity of common species at this time.