



# BUMBLE BEE BRIGADE

## 2018 Year-In-Review

When we began the pilot year of the Bumble Bee Brigade (B3) in the spring of 2018, we knew that interest in citizen-based monitoring of pollinators, and especially of bees, was high. Even knowing that, we were not prepared for the amount of interest in B3, and we remain both astonished by and grateful for the engagement, time commitment, and enthusiasm demonstrated by project volunteers. We sincerely thank everyone who attended a training, submitted data, or provided feedback on how we could improve B3. Because of you, our pilot year was a great success, and we look forward continued achievements as we begin the 2019 statewide rollout of B3.

-Eva, Jay, and Terrell (The B3 Team)



One of 32 observations of *Bombus fervidus*, the yellow bumble bee, submitted to B3. Photo: Adrian Konell

B3 Contributions	Number
Volunteers	102
Species Observed	16
Observations	1165
Surveys	645 (143 small area & 502 incidental)
Sites	272
Counties with Surveys	57

## Tips for 2019

### Review Online Materials

The Get Involved tabs on the B3 websites contain helpful resources like the volunteer manual, training slides, frequently asked questions, and more. The Resources tab offers species descriptions and photos and many other identification resources. Review these **materials now and you'll be ready to start monitoring** when the bumble bees emerge!

### Find a Partner

B3 is substantially easier (and often more fun) if you volunteer with a partner. One person can photograph and count bees while the other records data. This is especially helpful when doing small area surveys. If **you don't have a monitoring partner, ask a friend or family member** to join you.

### Attend a Training

**If you weren't able to attend a training in 2018, we strongly encourage you to attend a training in 2019.** Training dates and registration information are available on the B3 website training page.

### Try a Small Area Survey

Counting and identifying every bee you see can be challenging, but doing so for the small area surveys maximizes the amount of information we receive from your observation. Small area surveys lead to more accurate species range maps and allow us to track species abundance. We encourage you to try at least one small area survey this year!

### Always Attempt ID

Attempting to identify the bees you submit to B3 is the best way to hone your identification skills, which leads to more accurate data collection. In 2018, more than 3/4 of the volunteer submitted identifications matched **the verified identification. That's a great start for the first year!** Remember, we look at every photo you submit and provide verification feedback on species **and sex identification, so it's ok if you make a mistake or aren't 100% certain on an identification.**

## Frequently Asked Questions

### How can size be used in ID?

Size is best used to help distinguish queens from workers, as queens can be up to twice as large. Size can occasionally help distinguish between species, in conjunction with other features.

### What's the difference between a site and a survey location?

A site is the general location, such as a state wildlife area, a county park, or your own property. The survey location is the specific area that you survey (either small area or incidental) within a site. In most cases, there are many possible survey locations within a site. With very small sites, like a small urban property, the site and survey location might be the same.

### What does an "unknown" verification mean?

We verify the species or the sex of a bee as unknown when our team of verifiers does not have enough information to conclusively determine its ID. This could be because another angle or view is required to verify **ID, because photos aren't of sufficient quality to make out key details, or in rare cases because photos alone are not sufficient to make an ID.** For priority species, we will reach out to volunteers for more photos if we **can't make an initial verification from those provided.**

More FAQs available on the B3 website



Queen and male *bombus impatiens*, the common eastern bumble bee. Photo: Ed Buchs

