

Grab a Camera and Get Involved with BumbleBeeWatch.org!



Photo by B. Bax

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Overview of Presentation

- Overview of BumbleBeeWatch.org
- 6 easy steps involved
- Interesting results to date
- Ways you can use BBW
- Ways we can help you
- Summary



Photos by V. MacPhail
unless otherwise attributed

Overview of *BumbleBeeWatch.org*

- Citizen science project
- Increases our knowledge about bumble bees
- Photo-based observations with locational information
- North America wide effort
- No experience in bee or plant identification needed
- All ages can participate



Bumble Bees in Ontario

20 native species!



Photo collage from Sheila Colla

Easy 6-Step Process

1. Grab a camera
2. Find some flowers or nesting habitat
3. Take photos of bumble bees or their nests
4. Download, crop & rotate as necessary
5. Upload photos to web-site
6. Use the interactive key to identify your bee



That's it! Expert confirmation will follow.

In the Field

1. Grab a camera
 - Cellphone (App being developed for iOS, Android)
 - “Point and shoot” camera
 - DSLR camera
 - “Tablet” computer
 - Film camera (need to scan images)



In the Field

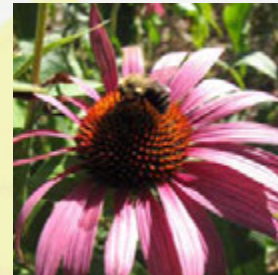
2. Find some flowers

- Your garden
- Nearby gardens, landscaping
- Parks
- Roadsides
- Farm fields
- Anywhere in North America
- Vacation trips too!



3. Take photos of any bumble bees you see

- Several photo angles are good
- Best photo angle is a side shot with a bit of top showing
- Face is also a good angle to get
- Focus on where the bee is likely to go next
- Multi-burst mode can help
- Use macro mode (often flower icon)
- Snap away!
- Remember to record information such as date, location, flower type



In the Field

3 (con'td). Take photos of any bumble bees you see

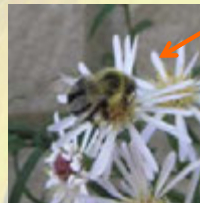
- Having trouble taking pictures of bees on flowers? Collect in clear vial or other container directly from flower or using a net
- Can place in a cooler with ice packs to slow down movement
- See the BumbleBeeWatch.org website and protocol book for more tips



BumbleBeeWatch.org

4. Download, crop & rotate as necessary

- Best if can crop close to bee, rather than have bee in distance
- Max. size 5MB/photo
- PNG, GIF, JPG images only



BumbleBeeWatch.org

5. Upload photos to web-site

- Log-in or create an account (first visit)
- Need an e-mail address



BumbleBeeWatch.org

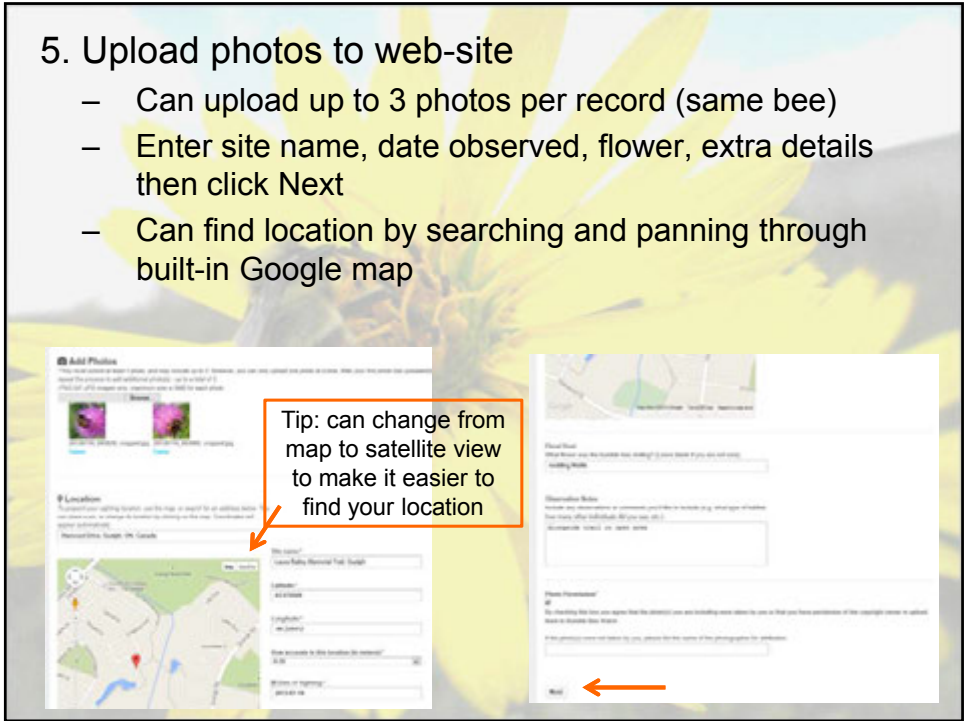
5. Upload photos to web-site

- After logging in, will automatically be directed to your personal page
- Add new sighting by clicking on "Record a Sighting" at top of page, and selecting Bumble Bee Sighting



5. Upload photos to web-site

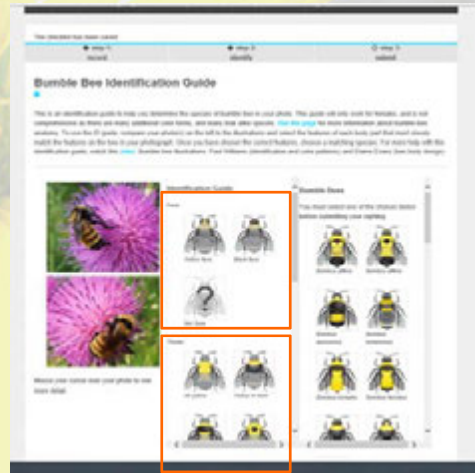
- Can upload up to 3 photos per record (same bee)
- Enter site name, date observed, flower, extra details then click Next
- Can find location by searching and panning through built-in Google map



BumbleBeeWatch.org

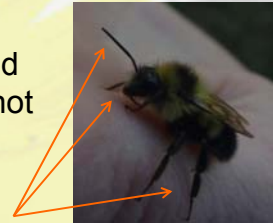
6. Use the interactive key to identify your bee

- Choose the image/detail in each set of options in the id guide that best matches your bee
- Can't see, can't tell, just not sure? Choose the Not Sure? option
- Can also zoom in on your photos



6. Use the interactive key to identify your bee

- Note: the colour diagrams are designed for identifying female bees; males do not fit as well
- Photos of males can still be submitted
- Characteristics of male bees
 - Usually smaller than females
 - Longer antennae
 - No stinger
 - No pollen carrying structures
 - Often white or yellow facial hair



Male



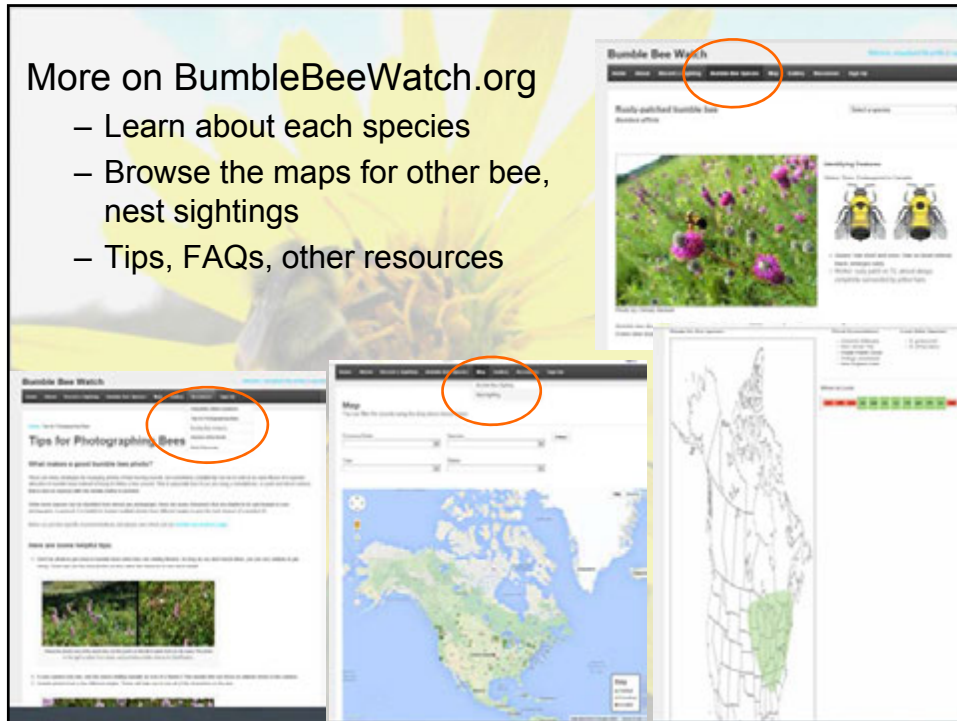
Female

- That's it! You're done!
- Sighting will have a question mark until expert confirmation

The screenshot shows the Bumble Bee Watch website interface. At the top, there's a navigation bar with links like Home, About, Record a Sighting, Submit Bee Species, Help, Gallery, Resources, and Log In. Below this is a 'Thank you' message: 'Thank you for submitting your sighting to Bumble Bee Watch. Your sighting will help scientists document locations of these important pollinators and help inform effective conservation efforts. Next steps: Your photo will be reviewed by one of our bumble bee experts. If the species can be determined, your photo will be marked as verified and we will let you know. If the expert needs more information about your sighting, you may be contacted. Once your photo is verified, you can visit your sighting.' Below the message, there are two sighting cards. The first card is for a 'Yellow bumble bee' (Bombus terrestris) and is marked as 'Pending' with a question mark icon. The second card is for a 'Two-spotted bumble bee' (Bombus terrestris) and is marked as 'Verified' with a checkmark icon. An orange arrow points from the 'Pending' label to the question mark icon on the first card, and another orange arrow points from the 'Verified' label to the checkmark icon on the second card.

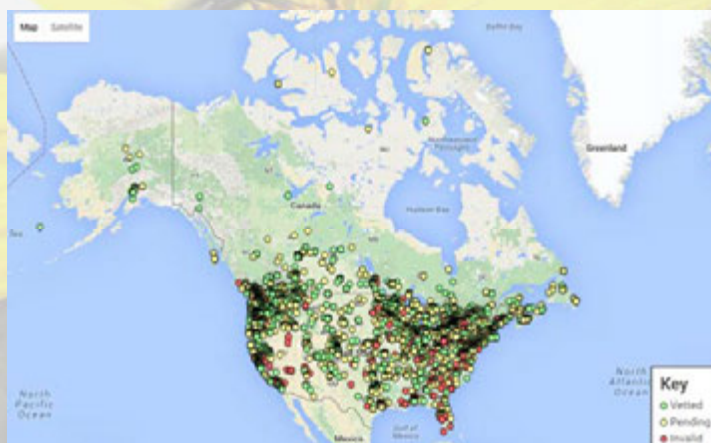
More on BumbleBeeWatch.org

- Learn about each species
- Browse the maps for other bee, nest sightings
- Tips, FAQs, other resources



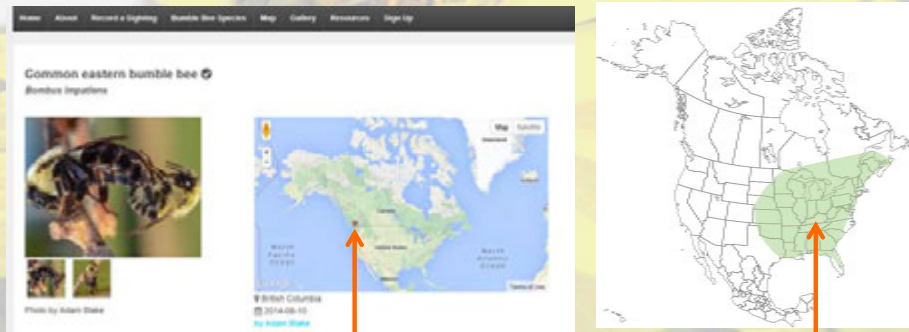
BumbleBeeWatch.org

- Interesting results so far:
 - Over 8000 records from across North America since launch in March 2014 (as of October 2015)



BumbleBeeWatch.org

- Interesting results so far:
 - Common eastern bumble bee mating in BC, well outside it's normal range and distant from greenhouses

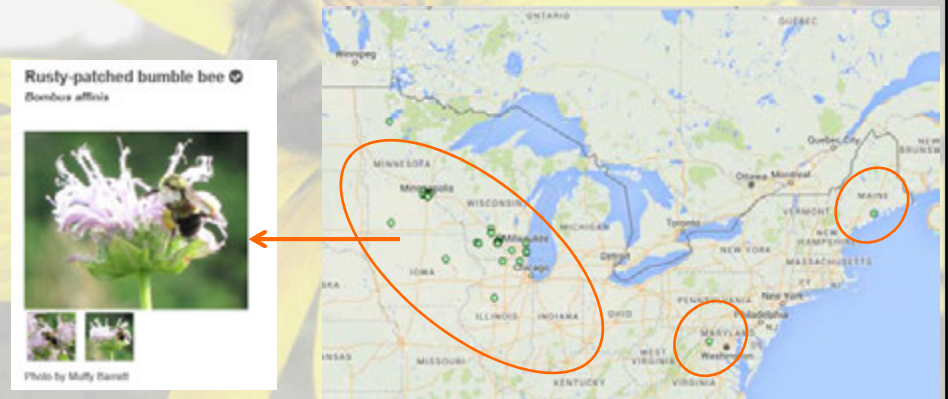


New breeding records

Traditional range

BumbleBeeWatch.org

- Interesting results so far:
 - 30 new Rusty-patched bumble bee sightings in the US!
 - Hope for finding it in Ontario!



Ways you can use BBW

- Create species lists per property
 - Incidental observations
 - Formal survey(s)
- Species in area
 - Learn what could be on your property
 - Make changes to attract or support species
- Evaluate changes in your property's bees over time
- Info on searchable map



Ways we can help you

- Online resources about pollinators
- Hard copies or electronic files of promotional and educational materials
- Advice on organizing volunteer survey program
- Have displays at your event
- Give presentations
- Conduct surveys
- And of course, verify your photo submissions!



Summary of BumbleBeeWatch.org

- Easy 6-step process
- Have the bumble bees on your property identified
- Have fun, learn, and help science all at the same time
- Just need a camera and internet connection
- Sign up today to receive e-newsletter and to start sending in your photos



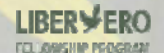
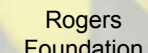
Questions?



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Thanks to our funders:



Bye for now!

