

Wild Bee Observer

Become a community scientist and help bees!

Do enjoy spending time outdoors? Want to help us protect the bees of Rhode Island? Join RIDEM's Division of Fish and Wildlife as a community scientist by contributing to our **Rhode Island Wild Bee Observer** project! Wild Bee Observer allows members of the public to easily submit your observations of Rhode Island's bee species from anywhere in the state through the popular wildlife observation website and phone app, [*iNaturalist*](#).

Evidence shows that some of Rhode Island's native bee species are experiencing concerning declines. Observations submitted through Wild Bee Observer will improve our understanding of where Rhode Island bee species occur throughout the state!

You don't have to find a rare bee species to participate. Observations of all species, both common and rare, are welcome! This information is essential for the effective conservation and management of these important insect pollinator species.

On behalf of the buzzing, pollinating critters of Rhode Island, thanks for being a Wild Bee Observer!



Questions about Wild Bee Observer?

Contact Toby Shaya | Pollinator Entomologist

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Wild Bee Observer

Is it a bee?

Bees come in all shapes, sizes, and colors! However, there are a few bee look-alikes that may try to trick you. **While wasps and flies are also pollinators, we are only looking for bees.** For a more detailed guide to the common bees of Rhode Island, check out the [RIDEM Wild Bee Guide!](#)

Large Bees

Key features: Large (over ½ inch long) with four wings, long antennae, and eyes on the side of the head, with hairy, chunky bodies and a short “waist”

Examples: Bumblebees, large carpenter bees, and honeybees

Small Bees

Key features: Small (under ½ inch long) with four wings, long antennae, and eyes on the side of the head, with hairy, chunky bodies and a short “waist”

Examples: Sweat bees, miner bees, and long-horned bees

Wasps

Key features: Varying in size with four wings, long antennae, and eyes on the side of the head, with a body that is mostly hairless (or with few bristles) and slender with a distinct “waist”

Examples: Yellowjackets, paper wasps, and digger wasps

Flies

Key features: Varying in size with two wings, short antennae, and eyes on the front of the head. Bodies have no distinct “waist” and can be hairy or hairless

Examples: Drone flies, bee flies, and robber flies



Did you know?

There are ~250 bee species in Rhode Island!



How to use Wild Bee Observer...

On the iNaturalist Phone App

STEP 1: Join Wild Bee Observer on iNaturalist!



- Download the application “iNaturalist”
- Create an account on iNaturalist
- Under “Projects” (suitcase icon) search for “Rhode Island Wild Bee Observer”
- Click “Join”

STEP 2: Take pictures of bees!

STEP 3: Submit your observations to iNaturalist!

- Select the “Observe” camera icon at the bottom of the page
- Upload the photos of your bee through your “Photo Library”
- Enter your bee species ID under “What did I see?”
 - If you’re unsure of the species, simply select “Bees”
 - For bumblebees, check out the [RI Bumblebee Guide!](#)
- In the “Notes” box: Feel free to add some information about the flower that you observed the bee foraging on!
- Under the location tab: Either search for or manually navigate to the location where you saw the bee and then click “Save”
- Under the Geoprivacy tab (IMPORTANT): If the bee that you observed is RARE or HISTORIC (see list) please select “Obscured”

Click “Share” and you’re done!

An expert will now either verify your ID or suggest an alternative ID.
Don’t worry if this takes a while!

Did you know?

Only female bees have stingers!



How to use Wild Bee Observer...

On the iNaturalist Website

STEP 1: Join Wild Bee Observer on iNaturalist!



- Create an account on the iNaturalist website: <https://www.inaturalist.org/>
- In the search box, search for “Rhode Island Wild Bee Observer”
- Click “Join” in the project banner
- Trust the project by selecting “*Yes, for any of my observations*” under “Your Membership”

STEP 2: Take pictures of bees!

STEP 3: Submit your observations to iNaturalist!

- Select the “Upload” arrow icon at the top right of the webpage
- Upload the photo of your bee (up to 4)
 - For multiple photos: Upload photos together then drag and drop each additional photo to the right (on top of the left most photo)
- Enter your bee species ID under “Species Name”
 - If you’re unsure of the species, simply select “Bees”
 - For bumblebees, check out the [RI Bumblebee Guide](#)!
- Under the location tab: Search for or manually navigate to the bee observation location and then click “Update Observations”
 - **IMPORTANT**: If the bee is RARE or HISTORIC (see list) please select “Obscured” under “Geoprivacy”
- In the “Notes” box: Feel free to add some information about the flower that you observed the bee foraging on!

Click “Submit Observation” and you’re done!

An expert will now either verify your ID or suggest an alternative ID.
Don’t worry if this takes a while!

Did you know?

Bumblebee wings beat 200 times per second!



Wild Bee Observer

How to take good pictures of bees!

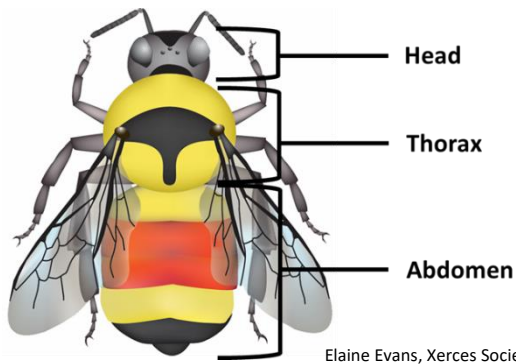
One of the most important tasks you have as a Rhode Island Wild Bee Observer is taking photos of bees! Here are a few tips and tricks for taking great photos.

What kind of camera should I use?

The short answer is: The camera you have! Most smartphones take great photos of bees with a little practice. You can practice taking clear photos with bee-sized objects at home before you try it in the field. However, if possible, using a digital camera is preferable. Also, if you have access to a clip-on macro lens for your phone or if your camera has a macro setting (usually an icon of a flower), this can greatly improve picture clarity!

What features of the bee should be visible?

The features of a bee that experts use to ID the species include the head, the thorax, and the abdomen (for abdomen pictures, try to get a picture with the wings open). Try to get photos that include these features, such as the example photos below. **We also suggest taking MULTIPLE photos that highlight different features.**



What if the bee won't hold still?

If you can't get a clear photo at close range because the bee is moving too much, take the photo as close as possible to the bee and then crop the photo. Another option is to take a video of the bee with your phone and then later screenshot individual clips. If you are comfortable with catching bees, you can also take pictures of the bee in a clear vial, which may make it easier to maneuver the bee to get clear pictures.

Did you know?

Over 90% of bees are solitary bees!

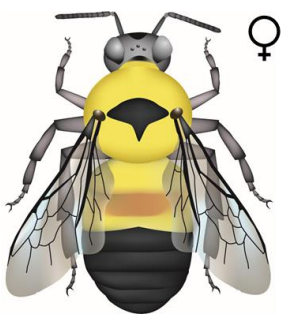




Rare and Historic Bumblebees

There are 11 species of bumblebee that are historically native to Rhode Island. However, in the past few decades, only half of these species have been documented. Some of these bees are rare throughout the region ("Rare") and others are just not found in the state anymore ("Historic").

The locations of these bees are sensitive, which is why we ask our Rhode Island Wild Bee Observers to please "Obscure" the locations of the following bees:



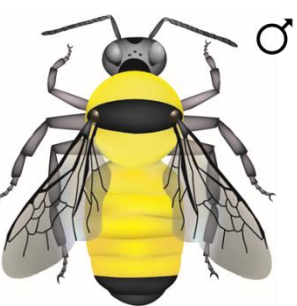
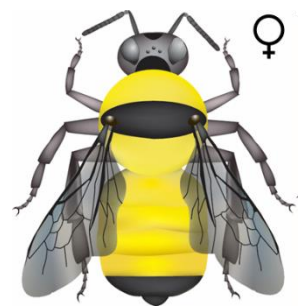
Bombus affinis*

Rusty patched bumblebee

Classification: Rare (*Critically endangered* on IUCN Red List) and historic

Key Features: T-shaped black band on the thorax, black tail, and an orange patch on abdomen

***NOTE: It is illegal to handle or net this bee without a USFWS permit**

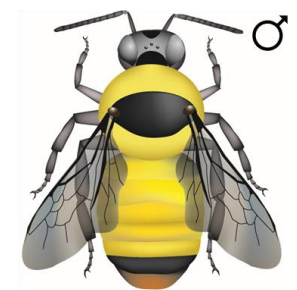
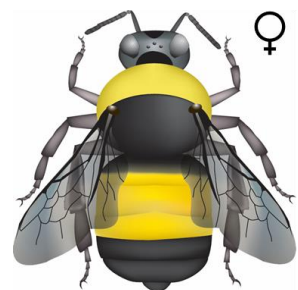


Bombus fervidus

Golden northern bumblebee

Classification: Rare (*Vulnerable* on IUCN Red List)

Key Features: Thin black band on thorax and yellow abdomen with small black "tail"



Bombus pensylvanicus

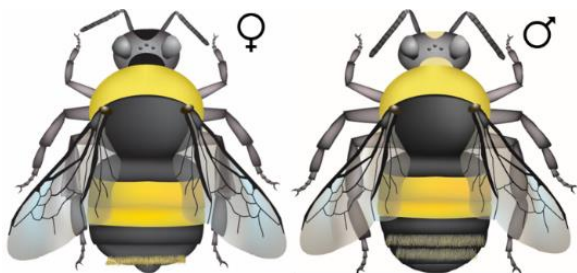
American bumblebee

Classification: Rare (*Vulnerable* on IUCN Red List) and historic

Key Features: Thick black band on thorax, black hair on top of head, and first abdominal segment is black



Rare and Historic Bumblebees (cont.)

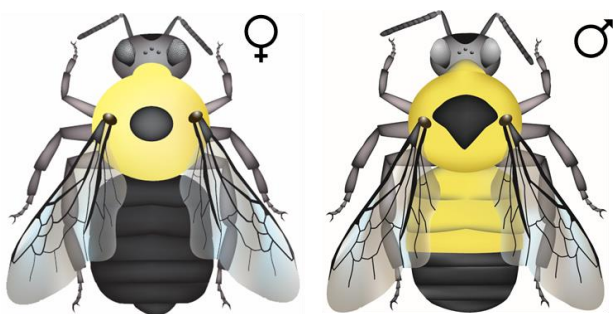


Bombus terricola

Yellow-banded bumblebee

Classification: Rare (Vulnerable on IUCN Red List) and historic

Key Features: Black band on thorax, first abdominal segment black, and black tail with fringe of yellow hairs

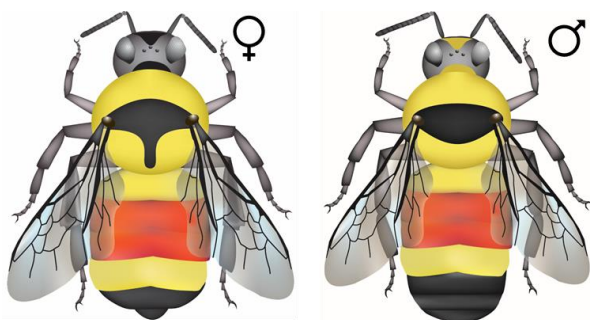


Bombus citrinus

Lemon cuckoo bumblebee

Classification: Historic

Key Features: Thorax mostly yellow with a black spot occasionally, shiny between hairs on the abdomen with variable abdominal color patterns

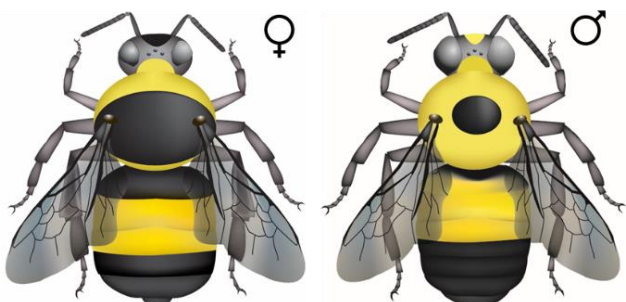


Bombus ternarius

Orange-belted bumblebee

Classification: Historic

Key Features: T-shaped black band on the thorax, a thick orange stripe on abdomen, and a small black tail



Bombus auricomus

Black and gold bumblebee

Classification: New to Rhode Island

Key Features: Similar to *B. pennsylvanicus*, but with yellow hairs intermixed posteriorly on the thorax