

The Great  
Georgia  
Pollinator Census  
August 19<sup>th</sup> & 20<sup>th</sup> 2022



Insect Counting &  
Identification Guide

Thank you for being part of Georgia pollinator conservation by helping us document our pollinator populations. The second annual Great Georgia Pollinator Census takes place on August 19<sup>th</sup> and 20<sup>th</sup>, 2022. Here are your counting instructions.

### Counting instructions:

- Choose a favorite pollinator plant for counting. This can be any blooming plant that shows insect activity.
- Count and categorize the insects that land on your plant. Count for 15 minutes. The insect categories are:
  - Bumble Bees
  - Honey Bees
  - Small Bees
  - Carpenter Bees
  - Wasps
  - Flies
  - Butterflies/Moths
  - Other insects
- There is an insect counting sheet at the end of this booklet to make counting easier for you.
- Upload your counts on the website (<https://GGaPC.org>). (We do not have the ability to accept mailed paper forms.)
- Post photos of your counters having fun, photos of your gardens, or anything you think would be of interest to the group on the Georgia Pollinator Census Facebook page.
- Becky Griffin is the project coordinator and is available through email at [beckygri@uga.edu](mailto:beckygri@uga.edu) if you have any questions.
- Counting hint: Your cell phone camera makes a great magnifier.
- The next pages are examples of the insects that you may see. Use these as your guides.

Have questions about counting?  
Contact Becky Griffin at [beckygri@uga.edu](mailto:beckygri@uga.edu).



Carpenter Bee

### Carpenter Bees

(16 – 22 mm)

- Black body with yellow and black bands
- Dense hair on head and thorax
- NO HAIR on abdomen
- Broad head, thick body
- Males have yellow to white coloring on face, females all black on face



Carpenter Bee – Hairless Abdomen



**Bumble Bee**



**Bumble Bee – Hairy Abdomen**



**Carpenter Bee with a Bumble Bee**

*Photo credit: Bodie Pennisi, UGA Extension*

## **Bumble Bees**

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**(10 – 19 mm)**

- Black body covered with dense yellow and black hair
- 
- Fat bee with small head
- 
- Large thorax and abdomen
- 
- Hairy abdomen

This photo illustrates the differences between the carpenter bee and a bumble bee. The carpenter bee is a “mack truck” while the bumble bee is more of a “pickup truck.”



Honey Bee

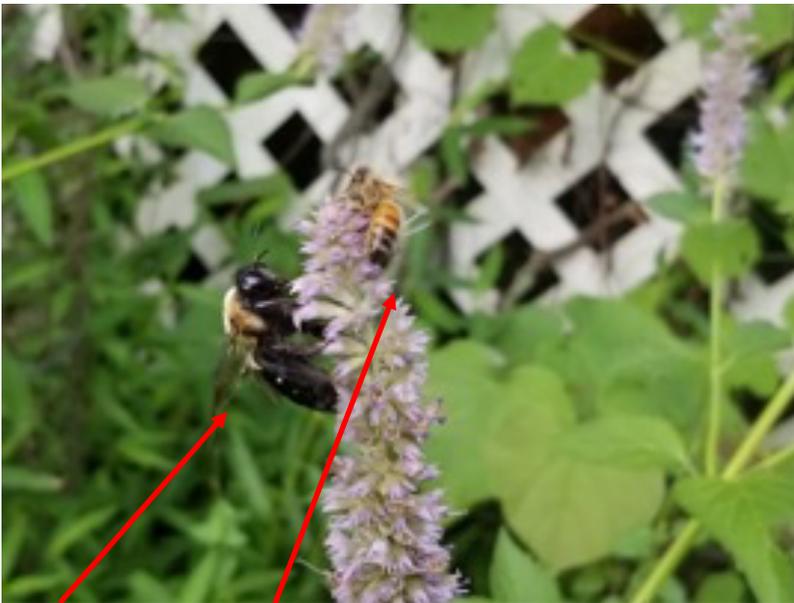
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### Honey Bees

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(12 – 15 mm)

- Brown or black stripes on body
- 
- Golden-brown hair covers abdomen



Bumble Bee and Honey Bee

This photo shows a honey bee and a bumble bee together. The two are easily distinguishable.



**Metallic green bee**

## Small Bees

(Any bee smaller than a honey bee)

Can include:

- Leafcutter Bees
  - Sweat Bees
  - And others
- Note: Keep a lookout for the metallic shine of the sweat bees from the family Halictidae. Even though these bees can be small, the metallic color is easy to spot when the sun is shining on them.



**Leafcutter bee**

*Photo credit: David Cappaert, bugwood.org*

Notice the dark striped abdomen of the leafcutter bee below. Remember if you can get a glimpse of the underside of the abdomen, the bee will carry the pollen there on the hairy scopa.





**Small bee on cosmos flower**



**Small bee on aster**



**Small bee on mountain mint**



Potter Wasp



Paper Wasp



Great Black Wasp

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## Wasps

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(13 - 25 mm)

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Can include:

- Potter Wasps
  - Paper Wasps
  - And others
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These are generally hairless.

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Many have very thin waists.

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No pollen gathering hairs.

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Long thin legs, often with spines.

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Fly (notice location of eyes and lack of large antenna)



Tachinid Fly

Photo credit: Sturgis McKeever, Georgia Southern University, Bugwood.org



Flower Fly (Bee mimic)

## Flies

(6 – 13 mm)

- Have two wings instead of the four wings on bees and wasps
- Eyes are large and take up most of the face
- Small antenna

Note: Some flies are bee mimics. They have bee-like coloring and will visit flowers. The large eyes and small antenna will confirm you see a fly.

## Comparing bees with flies

Bees	Flies
<ul style="list-style-type: none"> <li>• Have four wings (they hook together as they fly)</li> <li>• Have prominent antennae</li> <li>• Have two large eyes and three smaller ones in between (ocelli)</li> <li>• Carry pollen in pollen baskets (corbicula) or scopa (on bottom of abdomen)</li> <li>• Are generally hairy</li> </ul>	<ul style="list-style-type: none"> <li>• Have two wings</li> <li>• Have smaller antennae</li> <li>• Have two prominent eyes</li> <li>• Do not carry pollen</li> <li>• Are generally not very hairy</li> <li>• When not flying the wings are generally spread and not laying across their body.</li> </ul>



**Skipper Butterfly**

## **Butterflies and Moths**

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### **Can include:**

- Skippers

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- Gulf Fritillaries

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- Monarchs

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- Swallowtails

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- Common Spring Moth

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- And others



**Gulf Fritillary Butterfly**



**Monarch Butterfly**



**Eastern Tiger Swallowtail Butterfly**



**Lady Beetle**

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### Other Insects

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#### Can include:

- Beetles
  - Dragonflies
  - Lacewings
  - And others
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**Dragonfly**

*Photo credit: Millard Griffin*



**Ambush bug**

## Great Georgia Pollinator Census Observation Sheet

Name of participant: \_\_\_\_\_ Email: \_\_\_\_\_

Address of Garden (for mapping): \_\_\_\_\_ County \_\_\_\_\_

Would you consider your garden    small (< ¼ of an acre)    medium (>1/4 of an acre but < 1 acre) or  
large (>1 acre)

Date: Aug 19    Aug 210

Time of count start: \_\_\_\_\_

Temperature: \_\_\_\_ °F

Weather conditions: Sunny    Partly Cloudy    Cloudy    Rainy

Is there a honey beekeeper within 5 miles of your garden? Yes    No    Don't Know

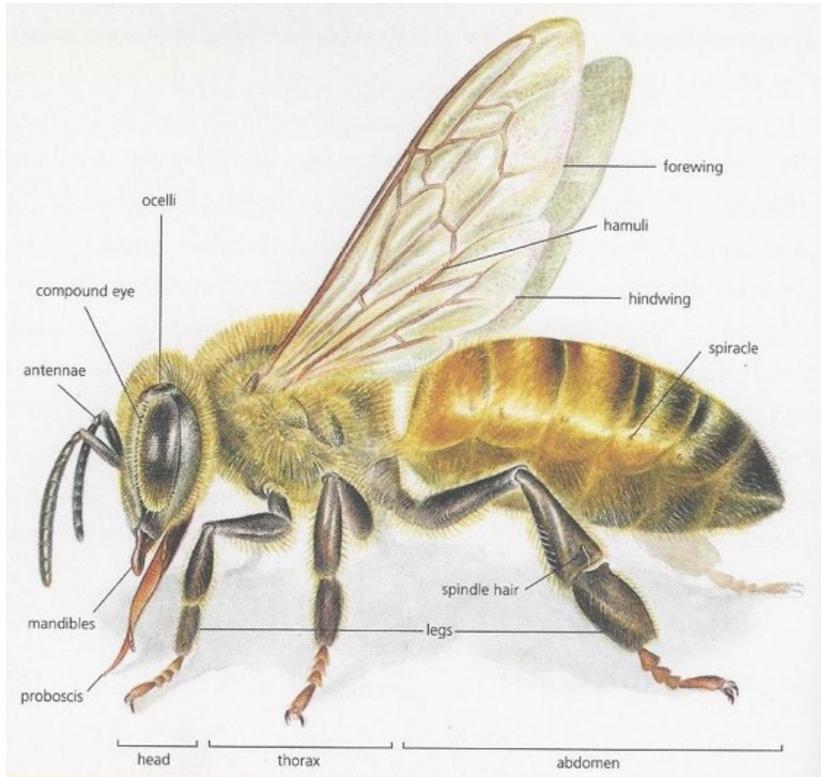
Name of pollinator plant used for counting. Please give common name and Latin name if you have it:

\_\_\_\_\_

Counting Data:

Type of Insect	Numbers
Carpenter Bees	
Bumble Bees	
Honey Bees	
Small Bees	
Wasps	
Flies	
Butterflies/Moths	
Other Insects	

Visit <https://GGaPC.org> to upload your counts to the website. Every count is important so THANK YOU!



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EXTENSION