



## Global Pollinator Watch

### Adding Insect-Plant Associations in iNaturalist

To fully understand plant-insect relationships, researchers need to identify all of the species involved. While iNaturalist observations are restricted to a single species, there are several ways to note observations of species interacting (interspecies associations). Using these instructions, you can add relationship details to your observations, and they will be automatically incorporated into the [Global Biotic Interaction \(GloBI\) project](#).

GloBI—as its name implies—documents species interactions and associations, so researchers can understand how complex networks of organisms interact, whether as predator and prey, host and parasite, fungi and plant, or, of particular interest to this program, pollinator and flower. You can find an example of all of the documented associations between goldenrod (*Solidago*) species and bees, wasps, ants, and sawflies (*Hymenoptera*) [here](#).

#### IF STARTING WITH A PHOTOGRAPHIC OBSERVATION OF AN INSECT ON A FLOWER:

- Open your observation on the iNaturalist website (this is easiest to do on a computer)
- Go to “Observation Fields”
- Click the “Choose a field” box
- Type in “Ecological interaction” which will open a field beneath that window with a drop-down menu. That field will show “Not recorded” by default.
- Click on the down arrow to open and select “visited flower of”: **Note the text beneath that box:** *“This is the type of interaction your main species of your observation has with the associated species you identify. Please use the “associated species with names lookup”.*
- Click the “Add” button to add the “Visited flower of” interaction field
- Once again, click the “Choose a field” box
- Type “Associated species with names lookup”. (**Note:** *once you type each of these in once, they will always appear as options in the “Choose a field” box under “Observation Fields”. You will not have to type in “Ecological interaction” or “Associated species with names lookup”.*)
  - If you are pretty sure of the species of the plant—either by common or scientific name—type that in the box under “Associated species with names lookup” where it says “Species name”. Many options will start popping up as you complete this field. Select the option that best matches what species you think the plant is and click “Add”. You will note that it does not offer suggestions based on the photo as occurs when submitting a main observation. This field is not connected to the pattern recognition algorithms that you find on the main observation.
  - If you cannot positively identify the plant the insect is on, and you have either a photo of the flower without the insect, or the same photo of the flower with the insect, you can submit that as a separate, independent observation. Rather than identifying the insect on the flower, however, you will use the “Species name” box to try to identify the flower/plant. This is often offered when you submit the insect observation, but sometimes the pattern recognition software focuses just on the organism on the flower. If the potential species of the flower is offered in the menu of possibilities, select that, or if not, type in what you think the plant species might be and submit. Once this observation becomes “Research Grade”, you can use this now identified flower species as noted above.

When documenting flower visitors and pollinators, it is helpful to take separate photos of the flowers and other important parts of the plant (showing if leaves are basal, opposite or alternate; entire, toothed, lobed, or divided etc.). This facilitates accurate identification of the flowers visited by the insects.

IF INSTEAD, YOU OBSERVE A KNOWN SPECIES OF INSECT VISITING A FLOWER, BUT DO NOT GET A PHOTO OF THE INSECT, YOU CAN FOLLOW THIS PROTOCOL:

- Open your observation
- Go to “Observation Fields”
- Click the “Choose a field” box
- Type in “Ecological interaction” which will open a field beneath that window with a drop-down menu. That field will show “Not recorded” by default.
- Click on the down arrow to open and select “Flower visited by”:
- Note the text beneath that box: “This is the type of interaction your main species of your observation has with the associated species you identify. Please use the “associated species with names lookup”.
- Click the “Add” button to add the “Flower visited by” interaction field
- Once again, click within the “Choose a field” box
- Type “Associated species with names lookup”. (Note: once you type each of these in once, they will always appear as options in the “Choose a field” box under “Observation Fields”. You will not have to type in “Ecological interaction” or “Associated species with names lookup”).
  - a. If you are positive of the species of the insect that you saw on the flower , but did not document with a photo, type that in the box under “Associated species with names lookup” where it says “Species name” (either by common or scientific name). As noted above, many options will start popping up as you complete this field. Select the option that best matches the species of insect and click “Add”.
  - b. If you are *not* positive of the identification of the insect, and you don’t have a photo of it, then you cannot connect the plant observation to an associated insect. You’re done.