## Level up your iNaturalist search game as a PIP contributor!

While we're in the middle of a cold, dreary winter, consider spending your time looking at beautiful pollinators and flowers! Many observations on iNaturalist can be added to the Plant Interactions on Plants (PIP) project with some annotation. If you're keen to curate some observations that have plant interactions already ID'd or ID some plants on your own, you can help our observations increase. In the following paragraphs, I'll walk you through how to annotate observations properly so they end up in the PIP project.

## Find interactions that already have plants identified but use another field.

**Step 1: Add '&field:name+of+associated+plant'** to the search URL. (Note: This search is also filtering observations by those not in the project with 'not\_in\_project= pollinator-interactions-on-plants-pip-of-the-ne-us' AND those that don't have our preferred field)

https://www.inaturalist.org/observations/identify?quality\_grade=needs\_id%2Cresearch&verifiable=any&has=geo&not\_in\_project=pollinator-interactions-on-plants-pip-of-the-ne-us&without\_field:interaction-%3Evisited%20flower%20of&place\_id=52339%2C48%2C51%2C42&taxon\_ids=47157%2C47201%2C47822%2C47208%2C11989%2C71349%2C5562&field:name%20of%20associated%20plant

(P.S. If you include spaces, iNaturalist will add in %20 in the URL to fill in those gaps.)

That link will give you the observations (7k+ in Jan 2024) that have the field 'name of associated plant' filled out using that field.



## Step 2: Use other filters in "Identify" to find your favorite pollinator in your favorite place or on your favorite flower.

The *identify* interface on iNaturalist can be really useful! If you're not familiar with using it, check out this tutorial <u>here</u>. If you only want to search for a single pollinator group (e.g., *Bombus*), or a single place (e.g., your state or county), you can use those filters here.

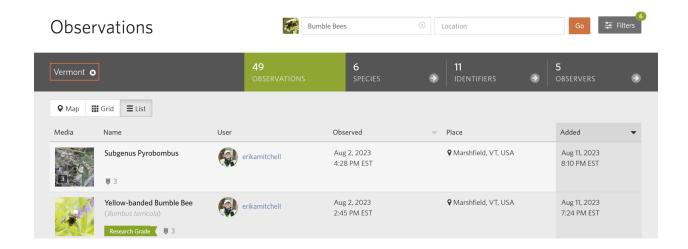
You can also add the plant to search only observations of pollinators visiting a certain plant by adding the iNaturalist taxonomic number to the end. (Notes: You can find the iNaturalist taxonomic number by doing a simple search and looking at the URL) For example, this link is searching only bumblebees visiting *Monarda fistulosa* (taxon ID=52775) with the 'name of associated plant' field filled in:

https://www.inaturalist.org/observations/identify?quality\_grade=needs\_id%2Cresearch&verifiable=any&has=geo&not\_in\_project=pollinator-interactions-on-plants-pip-of-the-ne-us&place\_id=52 339%2C48%2C51%2C42&taxon\_id=52775 &field:name+of+associated+plant=85320

If the field only uses a text-based field (e.g., Flower or plant association), you will need to add the written-out name of the plant rather than the iNat taxon number (if you put in the taxon number, the search won't yield anything). Here's a search for pollinators on Zinnia with the 'flower or plant association' field filled in):

https://www.inaturalist.org/observations/identify?quality\_grade=needs\_id%2Cresearch&verifiable=any&has=geo&not\_in\_project=pollinator-interactions-on-plants-pip-of-the-ne-us&place\_id=52339%2C48%2C51%2C42&taxon\_ids=47157%2C47201%2C47822%2C47208%2C11989%2C71349%2C5562&field:flower%20or%20plant%20association=Zinnia

(Note: it <u>does</u> matter whether you use common or scientific names here. It is purely a text-based search)

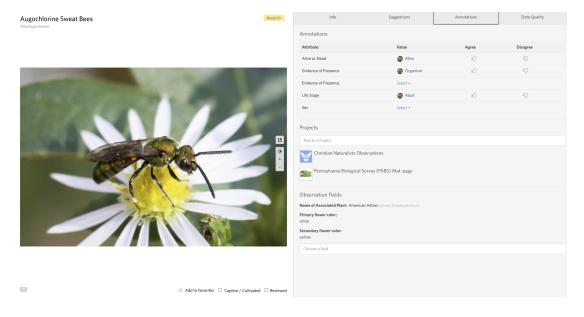


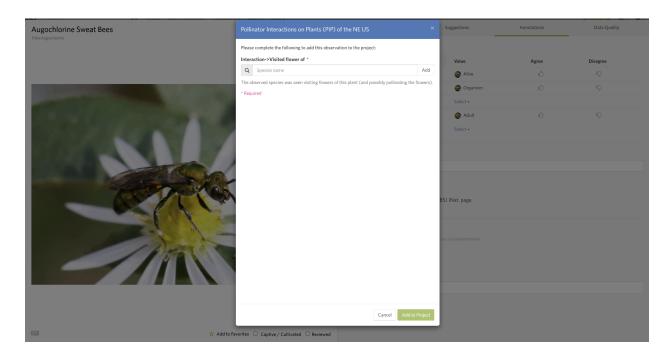
**Step 3: Confirm the observation is actually a pollinator visiting a flower.** Many observations returned by the filtered search do not show the type of interaction we are looking for—a caterpillar eating a plant, a moth resting on a leaf, bees on logs, etc. Only add the observations that show the pollinator visiting a flower.



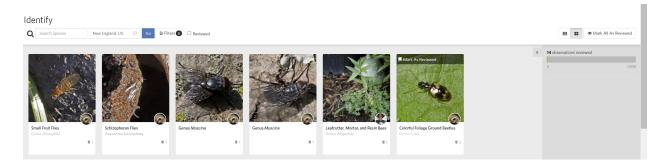
(Great observation of an interaction! But not a pollinator on a flower this time)

**Step 4: Add to the project and fill out the field.** Go to 'Annotations' on the specific observation. There, you can add to the PIP project. It will ask you for an interaction field. Fill in the plant identified. And the observation is added! Ensure you use the correct species if only the common name is filled in.





**Step 5: Review more observations.** Using *Identify*, you can **mark observations** as reviewed to know you already checked them for flower interactions. That way, they won't come up again. If you want more observations on a page than the standard 30, add '&per\_page=' to the end of the URL. For example, '&per\_page=200' gives you 200 observations per page.



**Step 5: Search through other fields.** Here's a list of fields that tend to be fruitful for finding plant interactions (many thanks to @Imtaylor for adding to the list!). *Note: capitalization matters!* 

- Nectar plant (iNat taxon)
- Nectar / pollen delivering plant (iNat taxon)
- Name of associated plant (iNat taxon)
- Associated species with names lookup (iNat taxon)
- Flower or plant association (text)
- Species of goldenrod (or other flower)the insect was observed on (text) (text)
- EwA host documentation (iNat taxon)
- Plant species visited (iNat taxon)
- Other Species in Photo (text)
- Pollinates (iNat taxon)

- Milkweed species (iNat taxon)
- Visiting a flower of: (Interaction) (text)
- Feeding on (iNat taxon)
- On (iNat taxon)

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• Flower/Plant Name (what plant was the pollinator visiting?) (text)

Thanks for your help! What other tips do you have? Share them with us!