

Data Collection Guide: Making a Milkweeds and Monarchs Observation with a Budburst Kit

Set Up Your Budburst Account (pick one of two ways)

1. Download our mobile app using the QR codes below or searching for 'Budburst' on your phone's app store. Open the app and click the 'Sign Up' button.

APPLE



GOOGLE PLAY

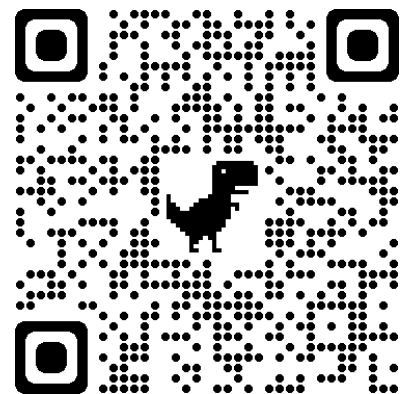


OR

2. Visit our website, budburst.org/register or scan this QR code:

You can then create an account with a username and password, or connect through another account. Use this information when you log into Budburst on the mobile app or on the website.

BUDBURST.ORG



Plant Your Milkweed Patch

You have received common milkweed (*Asclepias syriaca*) and/or butterflyweed (*Asclepias tuberosa*) plants and should plant them close to each other.

Making the FIRST Observation on Your Patch (pick one of two ways)

You can start monitoring when at least one plant in your patch is flowering.

1. Using the Budburst mobile app while at your patch:



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- Click the camera icon in the bottom middle of the app screen and take a photo of your milkweed patch and make sure to select or search for the species you are observing. Click 'Add Observation'. **You will need to make a separate observation for each species.**
- Choose Milkweeds & Monarchs for the type of observation you are making.
- Add the location of your patch. A location will be auto-generated from your photo. If you need to change the location, click on the box and search for the location, or use the map to move the pin and change the patch location (click on the map and press and hold the pin to move it).
- Make sure to nickname your plant! We hope you can observe your patch every week and adding a nickname for one of the plants in the patch will make observing much faster!
- Add the date of your observation.
- You will have the option to name your patch, which will be visible to other users that download Budburst data.
- Add your estimate of how many milkweeds are in your patch within the ranges provided. For the kit, this will be 1-10.
- Then add the flowering stage and monarch information on the plants in your patch, starting with the first plant you look at.
- Choose flowering stage (**None**, No flowers are blooming; **Early**, Only a few flowers have emerged; **Middle**, The majority of flowers have emerged; **Late**, Most flowers have wilted or fallen off; **Not-flowering/Clipped**, this should be chosen if you cut back a plant to prevent it from flowering, if you choose to do this be sure not to clip all the plants in your patch).
- Now decide if you want to add basic information about the monarchs on your plants or more detailed observations (advanced). The only difference in this data collection is whether or not you group instars 2-5 or record them in separate groups. Input the number of flower clusters, eggs, and 1-5 instars you saw on your plant. An instar is a stage of the monarch caterpillar's life cycle. Be sure to check our Egg and Instar Guide for more information.
- Click to **Add Another Plant** and fill out the flowering stage and monarch data for your next plant. Keep clicking **Add Another Plant** and adding data until you have information from each plant in your patch. Even if you do not see flower clusters, eggs, or any instars on a plant, be sure to add that plant into your data.
- While it is best practice to monitor all the plants in your patch, sometimes that isn't possible. Be sure to answer 'Did you monitor all the milkweed plants in this patch?' with



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No if you were not able to submit information on every plant in your patch. This helps us understand the accuracy of our data.

- Next you can add information on other insects/spiders present and any notes about your observations, like any other plants in bloom at your site or an observation or story that you would like to share with your fellow community scientists.
- Once you tap submit you've sent the data to Budburst! Congratulations!

2. Using a data sheet at your patch and submitting data on our website:

- When observing your patch, bring printed out data sheets for recording your observations (included in this kit and available in English at <https://budburst.org/milkweeds-and-monarchs> and in Spanish at <https://budburst.org/es/milkweeds-y-monarcs>). Then visit our website at <https://budburst.org> and log in to submit the data you recorded to Budburst.
- Click the add observation button at the top of the webpage. Upload a photo of your milkweed patch or select No Photo. The rest of the information you submit will be the same as on the data sheet you were using.
- Select or search the species you are observing. Add the location of your patch. Click on the box and search for the location of your patch and hit enter. After you have the general location you can click on the map and drag the red location marker to refine your patch location (be sure to hit save).
- Make sure to nickname your plant! We hope you can observe your patch every week and adding a nickname for one of the plants in the patch will make observing much faster!
- Choose Milkweeds & Monarchs for the type of observation you are making and add the date of your observation.
- You will have the option to name your patch, which will be visible to other users that download Budburst data.
- Add your estimate of how many milkweeds are in your patch within the ranges provided. For the kit, this will be 1-10.
- Then add the flowering stage and monarch information on the plants in your patch you observed, starting with the first plant you look at.
- Choose flowering stage (**None**, No flowers are blooming; **Early**, Only a few flowers have emerged; **Middle**, The majority of flowers have emerged; **Late**, Most flowers have wilted or fallen off; **Not-flowering/Clipped**, this should be chosen if you cut back a plant to prevent it from flowering).



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- Now decide if you want to add basic information about the monarchs on your plants or more detailed observations (advanced). The only difference in this data collection is whether or not you group instars 2-5 or record them in separate groups. Input the number of flower clusters, eggs, and 1-5 instars you saw on your plant.
- Click to **Add Another Plant** and fill out the flowering stage and monarch data for that plant as well, keep clicking **Add Another Plant** and adding data until you have information from each plant in your patch. Even if you do not see flower clusters, eggs, or any instars on a plant, be sure to add that plant into your data.
- While it is best practice to monitor all the plants in your patch, sometimes that isn't possible. Be sure to answer 'Did you monitor all the milkweed plants in this patch?' with No if you were not able to submit information on every plant in your patch. This helps us understand the accuracy of our data.
- Next you can add information on other insects/spiders present and any notes about your observations, like any other plants in bloom at your site or an observation or story that you would like to share with your fellow community scientists.
- Once you click Save you've sent the data to Budburst! Congratulations!

Making Weekly Observations on Your Patch

On both the mobile app and our website, your nicknamed plant should appear on your my plants page with a camera icon on the plant card. Tap this small camera icon, add a photo, and you can make a Milkweeds and Monarchs observation without having to re-add the location of your patch.