

Monarch Conservation Database (MCD) Technical Webinar

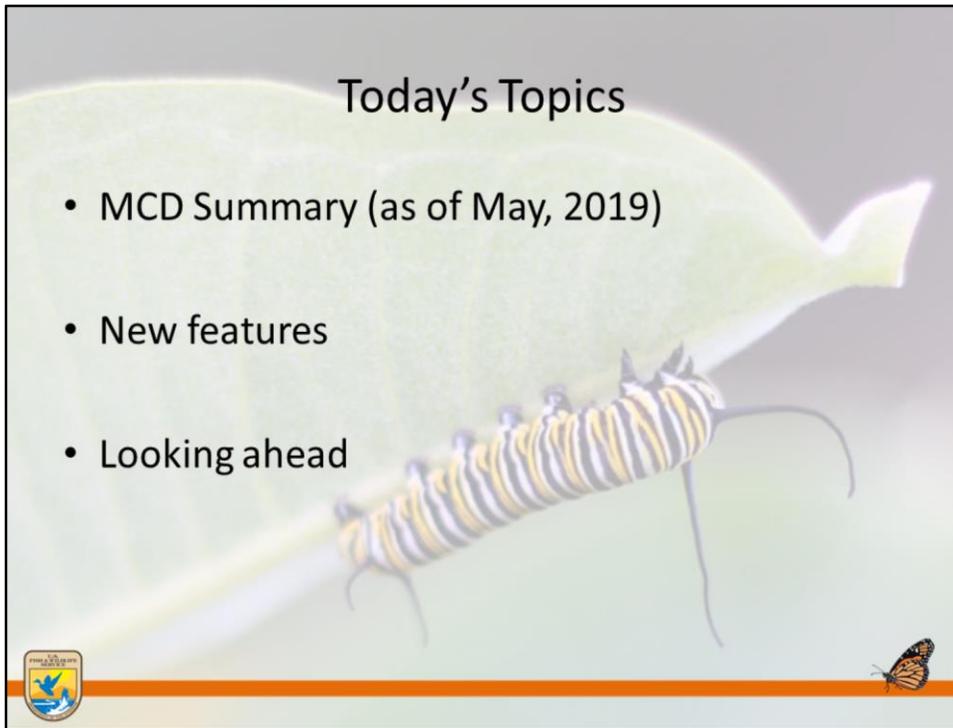
November, 2019

FW3_monarchconservation@fws.gov



Background Photo by Courtney Celley/USFWS

- Hello and thanks for joining us for our 5th Monarch Conservation Database Webinar. My name is Steve Choy and I am the biologist coordinating the development and implementation of the MCD application as well as the analysis of data entered into the MCD.



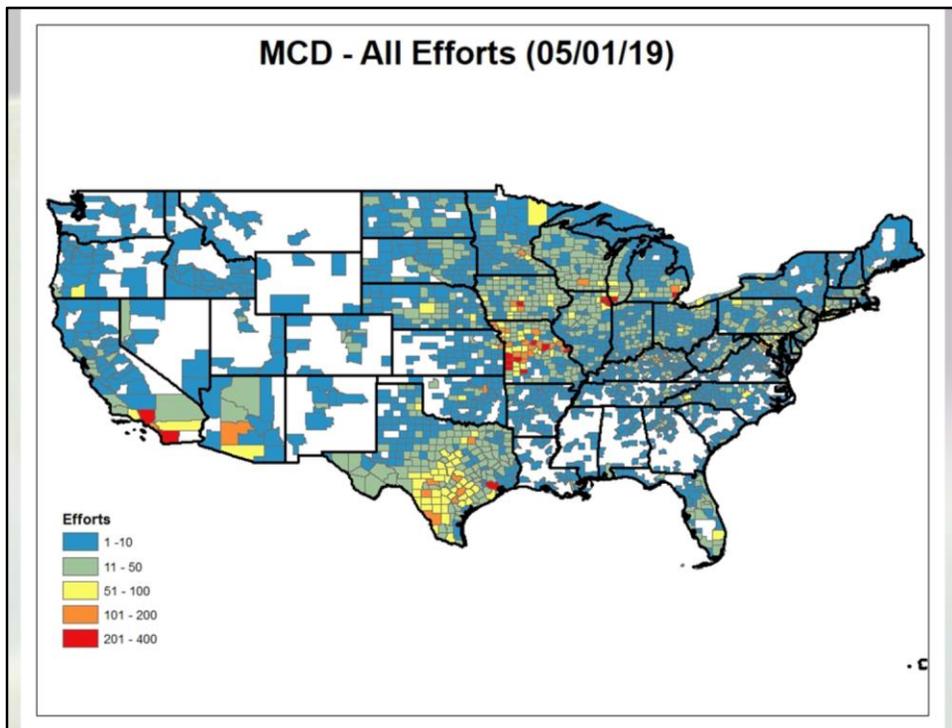
- In this presentation, I'll provide a brief overview of the data that we currently have in hand, I will discuss and demonstrate a few new features of the MCD, and we'll look ahead at the future of the MCD. I'd be happy to field any questions at the end of the presentation.

MCD Summary (as of May, 2019)

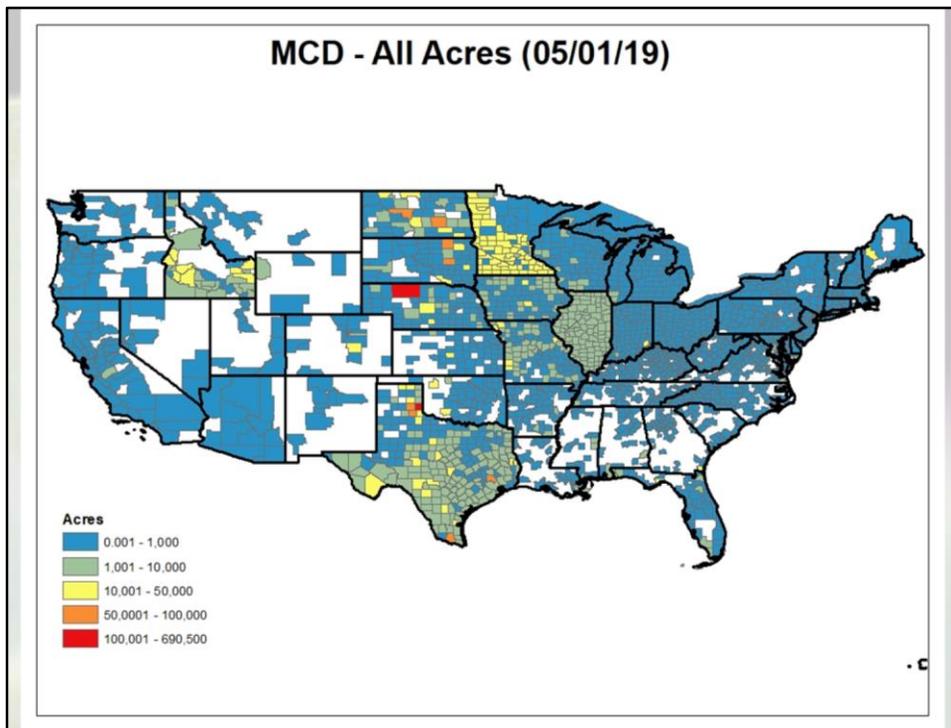
| Metric | National Total* |
|---|--------------------|
| Number of Plans in MCD | 115 |
| Number of Efforts in MCD | 37,318 |
| Number of Acres in MCD | 4,561,918 |
| Estimated Increase in Milkweed Stems in MCD | 486,853,781 |
| CRP Acres | -2,714,491 |
| CRP Milkweed | -120,365,054 |
| Net Acres | 1,847,486 |
| Net Milkweed | 366,488,727 |

*Not filtered through PECE

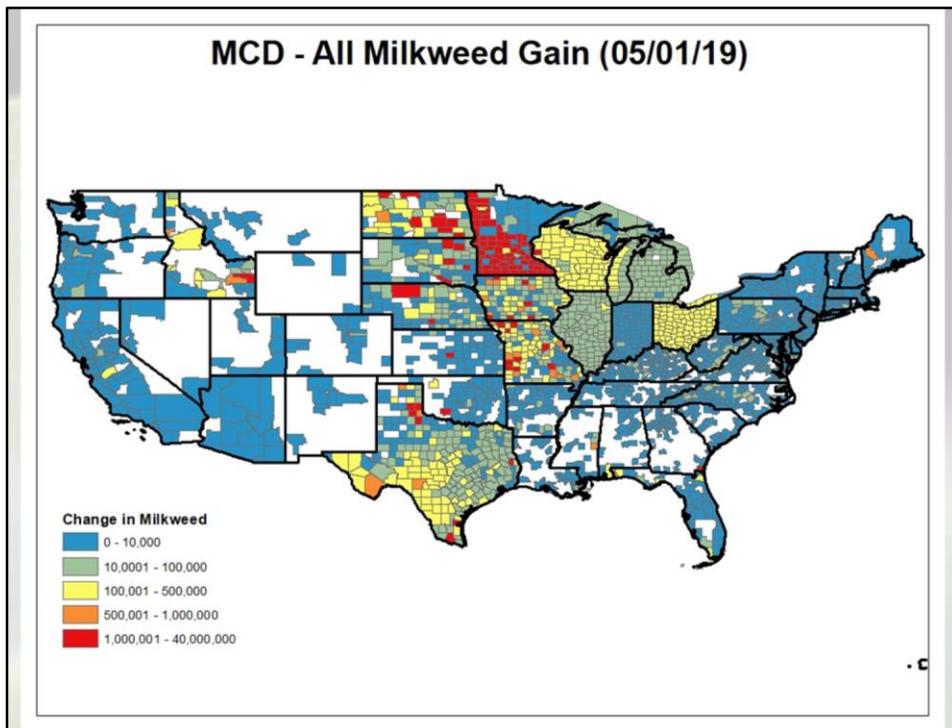
- Here we see an overall summary of the numbers in the MCD as of May. There haven't been many updates or additions since then but we will be sure to update these numbers ahead of our next major decision point which I will talk about later in the presentation.
- A few important things to note:
 - These numbers have not been filtered by the Policy for Evaluating Conservation Efforts; this is everything we currently have in the MCD, and
 - As a reminder, Conservation Reserve Program (or CRP) data it is not in the MCD per se, which is why it has its own rows, but we do have the data and we can fold it into our analyses.



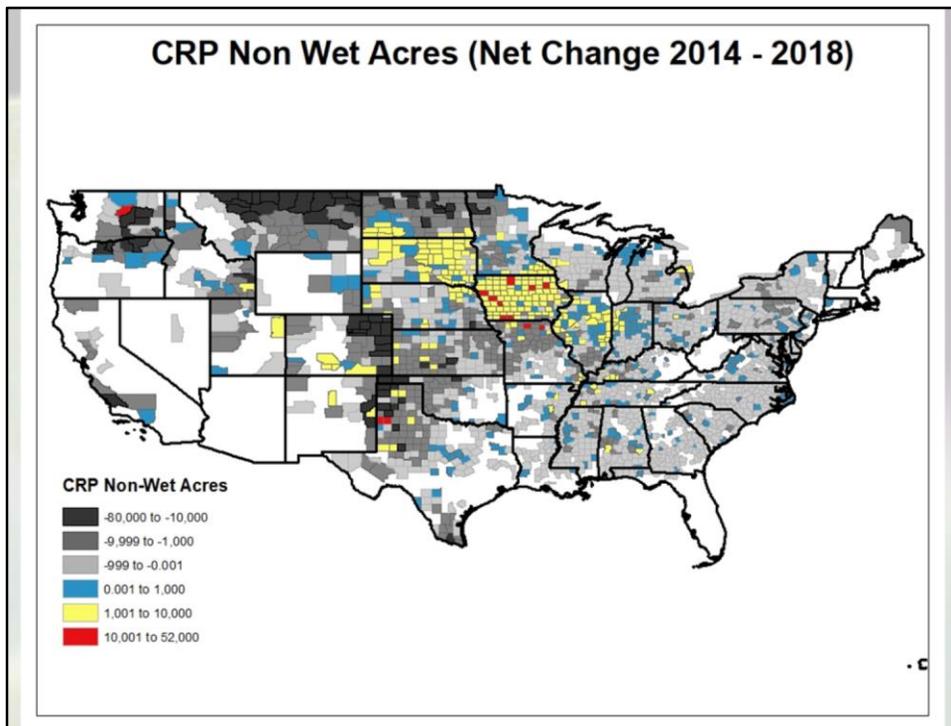
- We can map our data at the county scale.
- These maps represent only what is in the MCD and do not include CRP, which we will see in a few slides.



- Some states may appear to be oddly uniform (such as Illinois) and this would occur when the conservation effort is spread across multiple counties and a single acreage provided. This may occur when efforts are in the planning stages and it's not yet set in stone where exactly efforts will be implemented. In these cases, we divide the acreage evenly across those counties.

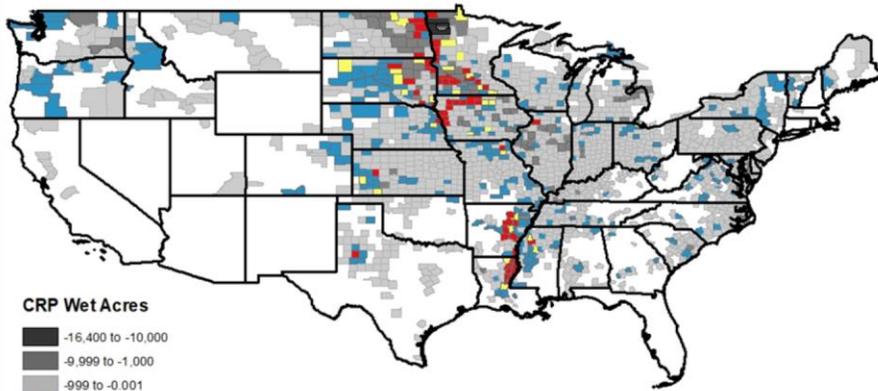


- Again, the 3 maps we just saw represent what is in the MCD itself.



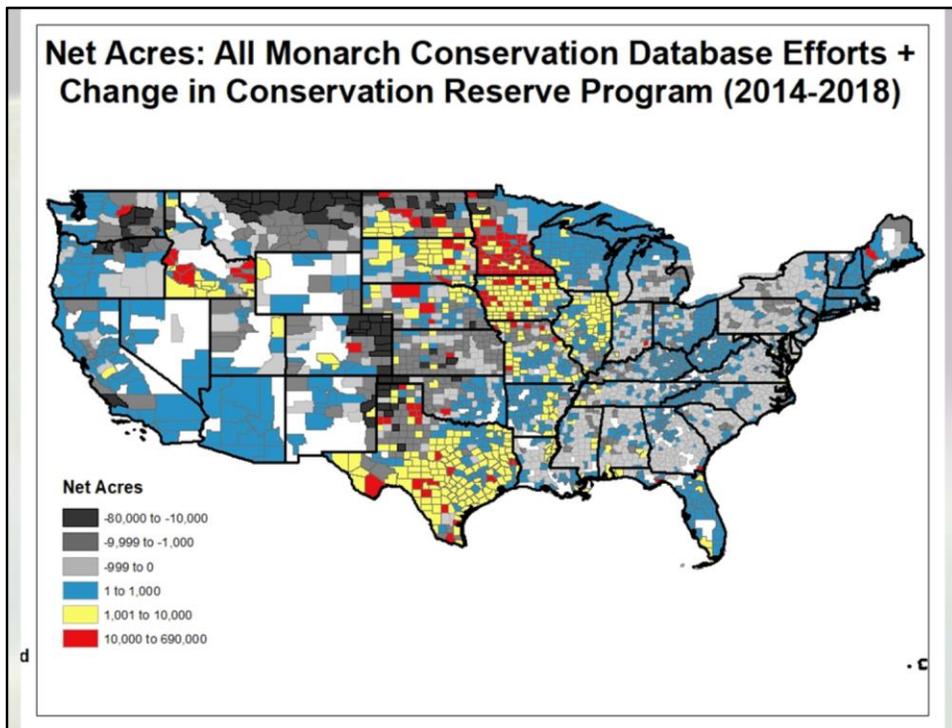
- Here we can see the net change in change in CRP acreages that occurred between 2014 and 2018; this is separate from the MCD.
- To maintain consistency with the underlying spatial data that serves as the baseline for milkweed stem estimates (i.e. the “All Hands On Deck” paper and seamless raster dataset), we divided CRP acreages into two groups of conservation practices: non-wet and wet.

CRP Wet Acres (Net Change 2014 - 2018)

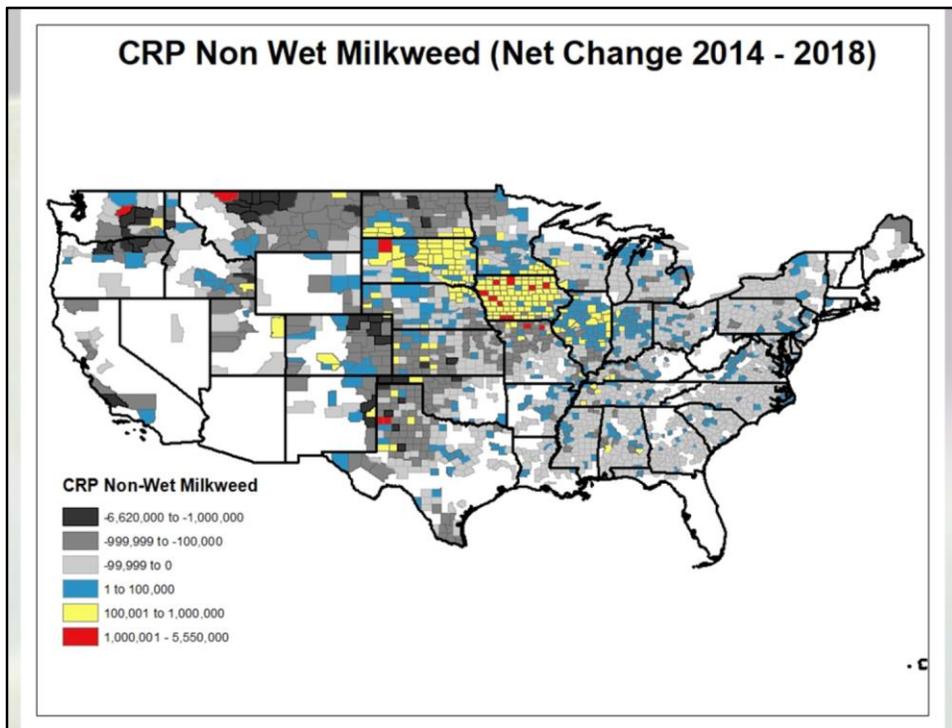


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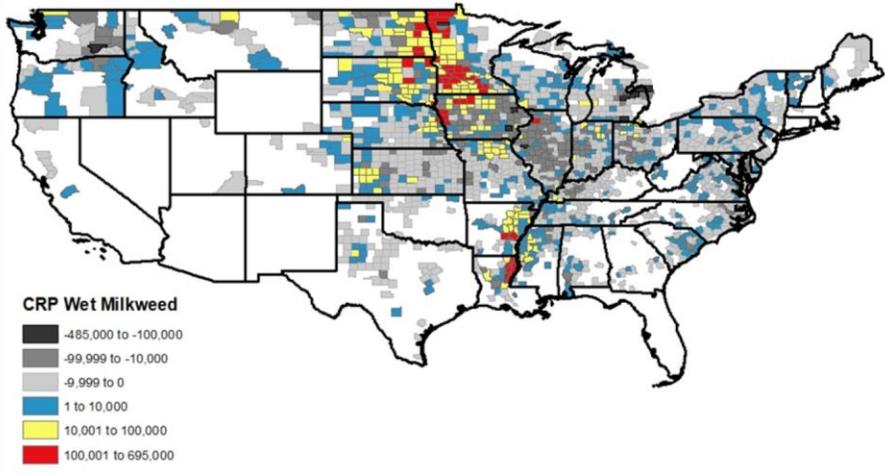


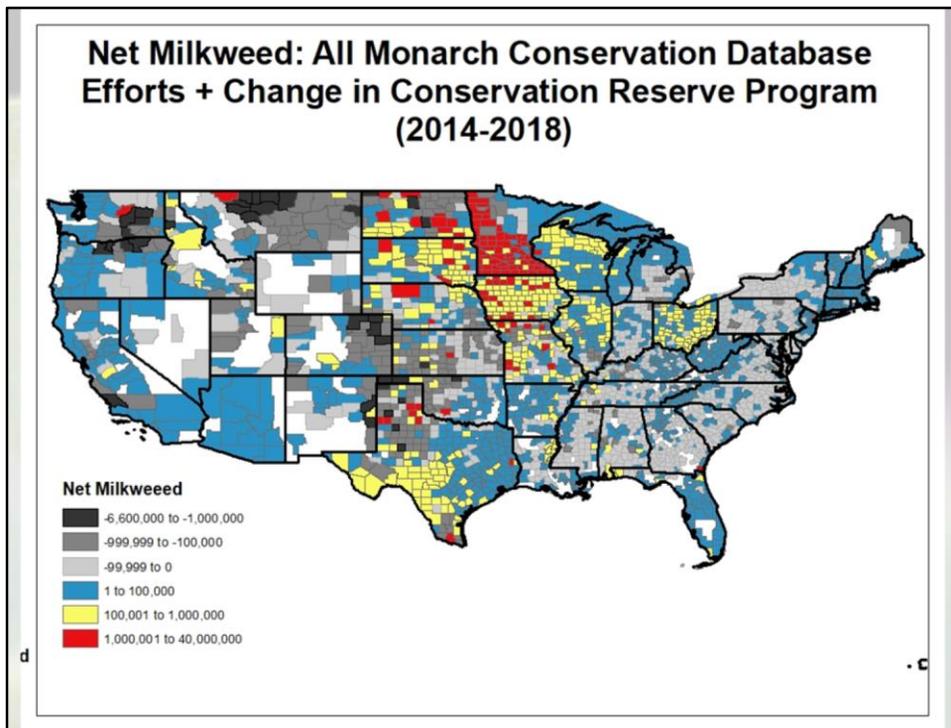
- Now we can see what happens when we combine the acres of conservation effort in the MCD with the change in CRP acreage.
- In some counties, gains in CRP will contribute to additional acres, however in other counties, conservation efforts were not enough to make up for losses in CRP.



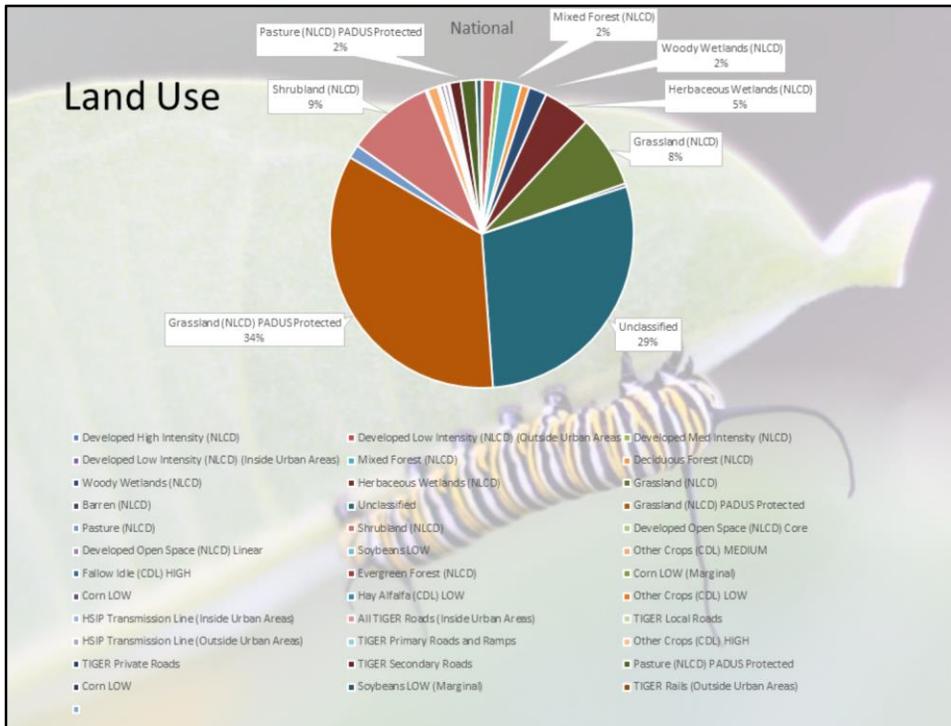
- In addition to the combined acreage, we can also see the estimated change in milkweed stems.

CRP Wet Milkweed (Net Change 2014 - 2018)

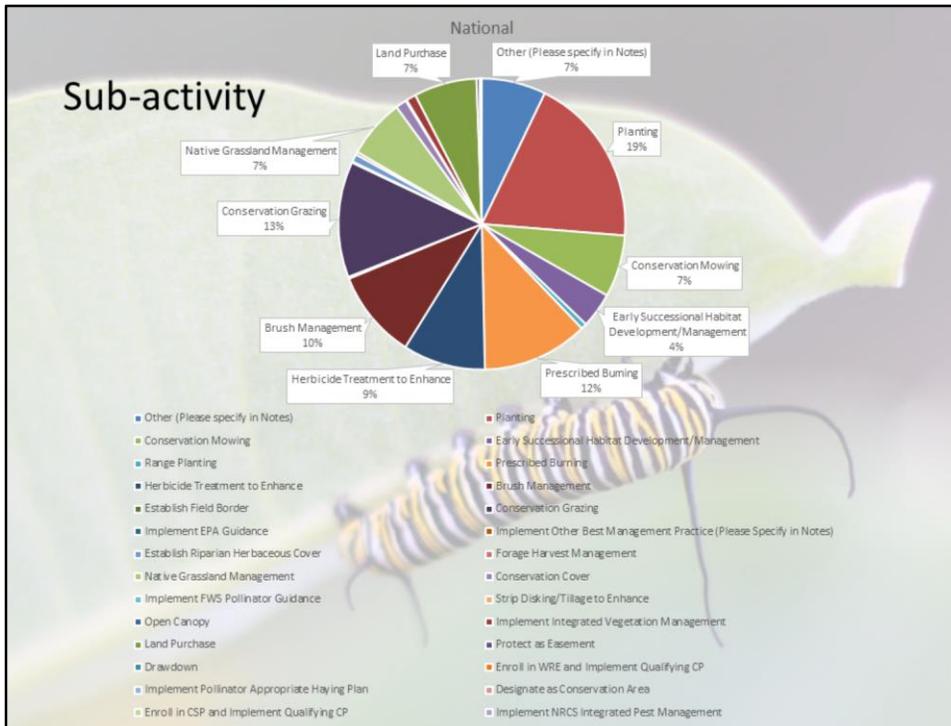




- What we see here is the net change in milkweed stems due to conservation efforts in the MCD plus change in CRP acreages.



- There are other ways we can break down the data that may be of use.
- For example, we can break our conservation efforts down by land cover type. Any land cover type not labeled made up 1% or less of all efforts in the MCD.
- You can see here that grassland was the most popular land cover type to implement work on.
- Unfortunately, we also had a significant proportion of users who were unable to provide a specific land cover type.



- Here we see a break down by sub-activity type.
- Again, any sub-activity type not labeled made up 1% or less of all conservation efforts in the MCD.
- The most popular sub-activity type was planting at 19%, followed by conservation grazing, prescribed burning, brush management, and herbicide treatment.

New Features

- Users can now depict the general location of their conservation effort at a higher spatial resolution than the county-scale while still maintaining anonymity through an application developed by the Western Association of Fish And Wildlife Agency (WAFWA)
 - The WAFWA application uses the Nested Hexagon Framework (NHF) developed by the University of Kansas to summarize spatial data and consists of a network of either 1mi² hexagons, 7mi² cogs, or 49mi² wheels
 - The NHF framework is also compatible with WAFWA's Crucial Habitat Assessment Tool (CHAT) that was designed to help resource managers identify and conserve important wildlife habitat at the landscape scale

- I'll now pivot and discuss a few new and updated features in the MCD.
- The first major new feature is the ability to depict the general location of a conservation effort at a higher spatial resolution than the county-scale required by the MCD while still maintaining anonymity.
- This is an optional step for users but the advantage to providing data at a higher spatial resolution is that we can get a clearer sense of spatial trends in monarch conservation efforts and it will facilitate landscape scale planning. For example, we can more precisely target areas where there is opportunity to implement future conservation efforts.
- Users can click on a link in the MCD which will take them to an application developed by the Western Association of Fish and Wildlife Agencies, or WAFWA.
- The WAFWA application uses the Nested Hexagon Framework (or NHF) developed by the University of Kansas to summarize spatial data and consists of a network of 1 square mile hexagons, 7 square mile cogs, or 49 square mile wheels.
- The application consists of a webmap that allows users to indicate the location of their project and the application will then associate the hexagons, cogs, or wheels that correspond with the user's delineation.
- The NHF framework is also compatible with WAFWA's Crucial Habitat Assessment Tool (or CHAT) that was designed to help resource managers identify and conserve important wildlife habitat at a landscape scale.

- I'll provide a quick demonstration of this feature
 - When you are at your Site page, you'll now notice there is reference to the application in the Site Location section and a green NHF/WAFWA box. Within the green box is a short description of the tools and a link. Clicking on the first link will take you away from the MCD page and bring you to the WAFWA application.
 - A few things to note here:
 - The first is that the WAFWA application opens in a new tab so you can easily go back to the MCD page to finish providing your data.
 - Second, the MCD automatically hands off the unique Site ID to the WAFWA application so we'll be able to associate the MCD data with the WAFWA application spatial data.
 - Fill out the starred fields and then zoom into your project area.
 - Next, choose your reporting framework.
 - Then, choose your method of selecting your zone and hit run to complete.
 - Please remember to finish filling out the MCD form if you did not initially by jumping back to the MCD tab in your browser.

New Features

- Users may now query the Monarch Conservation Database by lead organization
- This will facilitate coordinating and tracking conservation efforts

- The next key update is now users can query the MCD in pull reports by lead organization, which will make tracking and coordinating conservation efforts much easier.
- I won't demonstrate how to use pull reports in detail here, but the query webinar presentation I provided earlier this year as well as this presentation will be posted on the MCD website.
- If you run into any issues with pull reports, please feel free to send me an email.

Looking Ahead

- In order for conservation efforts to be considered in the listing determination, data must be submitted by May 31st, 2020
- Make sure your data (in particular PECE data) is up to date!
- If your account has been deactivated, please email me at FW3_monarchconservation@fws.gov

- Looking ahead, we have determined that, based on the new decision timeline, conservation efforts must be entered into the MCD by May 31st, 2020 in order to be considered in the listing determination.
- As a reminder, you may add, delete, and edit conservations at any time.
- If anything has changed since you entered your conservation efforts in the MCD especially with respect to the PECE policy questions (if you were required to answer them), please do update this information. The PECE policy determines which future conservation efforts we can consider in our decision making process.
- Lastly, if you try to get back into the MCD after not having logged-in for sometime, there's a chance your account may have been deactivated per our security policies. Please just shoot me an email at FW3_monarchconservation@fws.gov and we'll reactivate your account.

Thank You!

- To provide feedback on or ask question about the Monarch Conservation Database, please email: FW3_monarchconservation@fws.gov
- For additional information and updates, visit: <https://www.fws.gov/savethemonarch/MCD.html>



- Thanks again for your interest and taking the time to provide your data!
- Please feel free to contact us at any time with questions or comments.