



United States Department of Agriculture  
Natural Resources Conservation Service

The Central National Technology  
Support Center presents



# All About the Pollinators



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*Rafael Guerrero, Director*

## *A Message from the Director...*

Recently, the Fort Worth Federal Center (FWFC) celebrated National Pollinator Week and I would like to take this opportunity to recognize the NRCS employees at the FWFC that provided assistance which resulted in a successful week in the recognition of pollinators.

The protection of the monarch has been in the works for over a year now. An agreement among President Obama, President Peña Nieto of Mexico, and Prime Minister Harper of Canada to “establish a working group to ensure the conservation of the Monarch butterfly, a species that symbolizes our association.” Following that summit, President Obama signed a Presidential Memorandum, “Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators,” outlining an expedited agenda to address the devastating declines in honey bees and native pollinators, including the monarch butterfly.

With leadership from Lee Davis, the CNTSC is playing a key role in the National effort to protect monarch habitat by working with States in the Central Region to develop a Monarch implementation

plan.

In June, we held a successful pollinator workshop led by Rosanna Brown. Speakers presented on monarchs, hummingbirds, and bats discussing initiatives underway to help save pollinators’ precious habitats and food sources.

The pollinator work is an example of the CNTSC efforts to strengthen scientific and technological support for NRCS’ conservation programs and activities.

The CNTSC has two primary functions: to provide technological direct assistance and technology transfer (including collaboration with others for technical training) to States and to acquire and develop new science and technology to provide cutting-edge technological support.

The CNTSC is also charged with developing and maintaining National technical standards and other technological procedures and references.

It’s important that we take the time to recognize landowners, employees, and partners—all of whom play a vital role in helping the agency accomplish its mission.

*Rafael*



*Photo courtesy of Henry T. McLin*

# Ft. Worth Federal Center Partners With GSA

Monarch butterflies are among many of nature's beautiful creatures. The eastern population, which includes Texas, has approximately 95% of the Monarchs. Over the last 20 years, the eastern population has seen a 90% decline. While Monarchs as a species are secure, this eastern migration is an endangered biological phenomena.

Consistent with President Obama's Presidential Memorandum for Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators, Greater Southwest Region's Fort Worth Federal Center (FWFC), which is in the migratory corridor of the monarch butterfly as is in the identified habitat improvement target area along 1-35, recently joined the movement to conserve the butterfly's ecology.

"GSA is proud to partner with the Natural Resources Conservation Service to create a pollinator friendly environment at the Fort Worth Federal Center," said GSA Regional Administrator Sylvia Hernandez. "Not only do pollinators contribute to the U.S. economy, they also ensure the availability of healthy fruits and vegetables for future generations."

The FWFC identified "no mow" zone areas as a part of its pollinator initiative. This movement is a huge step toward cultivating a pollinator friendly environment on Federal property. The FWFC is also growing milkweed on the property; a plant that is critical to the Monarch butterfly's migration.

Texas is crucial to the monarch habitat for two periods of the year.

In March-April, the returning females get nectar from wildflowers and lay their eggs on milkweed, the only food plant which can support their caterpillars. Texas becomes important again in September-October, when migrating monarchs stop to re-fuel on wildflower nectar before their long slumber in Mexico.

Philip Barbour, Wildlife Biologist at the FWFC, was the brains behind the project. Philip initiated the meetings that led to the partnership with FWFC and GSA. Once an agreement was reached, Barbour began flagging and taking GPS locations of all the individual milkweed plants growing on the grounds. Shortly after, GSA provided a map of the official no-mow zones and the areas were established. "This project is a work in progress and zones will likely change in size and be rotated around different areas of the FWFC," said Barbour. All of the native plant species on the grounds are cataloged by Barbour on an ongoing basis.

Barbour was assisted in his efforts by several others at the center, including Anne Stine, Pollinator Conservation Specialist for the central region and housed at the center through a contribution agreement with Xerces Society and Rosanna Brown,



*Pollinator Habitat signs identify "no mow" zones at the Ft. Worth Federal Center.*

Landscape Architect with the National Design, Construction, and Soil Mechanics Center.

"This new project with GSA benefits pollinators by providing a mosaic of habitats on the FWFC campus. We have milkweeds and nectar plants available season-long for monarch butterflies and other pollinators. We've already seen positive results from our efforts-- the first monarch observation of the year in Fort Worth was a female laying eggs on our site. A family of coyotes has moved in too. These first steps are huge, especially given that this is the first habitat effort here since the base was established in 1944" said Stine.



# Fort Worth Federal Center Monarch Butterfly/Milkweed Project



## Naturally Occurring Milkweed Plant Locations

### Species

- *Asclepias asperula* (100) antelopehorns
- *A. oenotheroides* (948) zizotes milkweed
- △ *A. viridis* (505) green antelopehorn
- GSA No-Mow Zone (2015)

### LAND COVER TYPE

- Gravel 19 Acres
- Impervious 91 Acres
- Vegetation 80 Acres
- Approximate FWFC Bnd. 190 Acres

Field observations collected by Dr. Philip Barbour, Biologist, CNTSC using a Garmin Oregon GPS receiver on April 10-14 and May 13-15, 2015. Map No. 2015-35. Created : May 22, 2015. Contact Dwain Daniels GIS Specialist, CNTSC-NRCS-USDA. Coordinate System: WGS 1984 Universal Transverse Mercator Zone 14N. Units : Meters

### Pollinator Habitat

This area has been planted with pollinator-friendly flowers and is protected from pesticides to provide valuable habitat for bees and other pollinators.

To learn how you can help to bring back the pollinators, please visit [www.nreres.org](http://www.nreres.org).

## Did You Know?

In the 1990s, hundreds of millions of monarch butterflies made the flight each fall from the northern plains of the United States and Canada to sites in the oyamel fir forests north of Mexico City. In 2014, only 56.5 million made that trip.

The 2013-2014 population represents a 90% decline from the 20-year average.

# Migratory Pollinators: Their Pathways and Conservation Across Borders

There has been a lot of buzz here at the Ft. Worth Federal Center regarding what is being termed the “fuzzy landscape” or “no mow” zones. Employees are questioning why GSA is forgetting to mow around the center. But, GSA is not forgetting. They are intentionally not mowing the grounds to protect monarch habitat. With all of the questions surrounding the landscape, NRCS decided to host a workshop educating employees from all agencies at the center why the monarch habitat needs to be protected.

The workshop was organized and hosted by Rosanna Brown, Landscape Architect, who brought in speakers from across the state.

Guest speakers included Anne Stine – Pollinator Specialist, Xerces Society (Fort Worth Federal Center); Mark Klym- Texas Parks and Wildlife; and Kate Rugroden- Bat World Sanctuary, Inc. These individuals are recognized and respected in their fields of expertise and were eager to share their knowledge.

The presentations focused on current initiatives underway to help save pollinators’ precious habitats and food sources.

The event was a success and provided employees a better understanding of the importance of pollinators.



*Presenter Kate Rugroden brought in several different species of live bats to showcase to the audience.*



*L to R: Anne Stine –Pollinator Specialist, Xerces Society (Fort Worth Federal Center); Mark Klym- Texas Parks and Wildlife; Kate Rugroden- Bat World Sanctuary, Inc.*

## Did You Know?

Many people are unaware that over 500 plant species rely on bats to pollinate their flowers, including species of mango, banana, cocoa, durian, guava and agave (used to make tequila). So, next time you eat some chocolate, say thanks to the bats! The pollination of plants by bats is called chiropterophily

# Conserving the Monarch

The U.S. Fish and Wildlife Service may add the Monarch butterfly to the Endangered Species list following a catastrophic loss of its population over the last decade due to habitat decrease. A proposal for listing is currently under review by the Service.

NRCS' Central National Technology Support Center (CNTSC), with leadership from Biologist Lee Davis, has facilitated an effort within a 10-State region to develop the NRCS monarch habitat strategy. NRCS partnership experts from several groups including the U.S. Fish and Wildlife Service, State resource agencies, universities, and many private conservation groups have been tasked with developing a plan of work to get monarch habitat on the ground.

Two science and strategy development sessions were held with experts from various regions to formulate a solid plan of work. Each session had from 30 – 60 individuals and resulted in a detailed strategy implementation strategy. NRCS will implement a two year pilot program, across 10 states, and monitor what is

working and make changes to what isn't. "NRCS is committed to doing whatever we can to prevent the monarch from being listed," said Davis.

Donita Cotter, Monarch Conservation Strategy Coordinator, U.S. Fish and Wildlife Service, has been working along side Davis in this effort.

"The vast majority of monarch breeding and migration habitat in the eastern population's central flyway is privately owned, so conservation success for the monarch means conservation action on ranching and agricultural lands. That's why NRCS Farm Bill resources, expertise, and commitment are so important. We've been really pleased and impressed with the NRCS Monarch Team's sub-regional strategy development process. The team has very quickly developed really specific guidance and tools that will be super useful to our biologists and conservation partners. The U.S. Fish and Wildlife Service cannot save the monarch alone. NRCS is a significant partner in this effort," said Cotter.

# Background on Pollinator Week

Pollinator Week was initiated and is managed by the Pollinator Partnership.

Eight years ago the U.S. Senate's unanimous approval and designation of a week in June as "National Pollinator Week" marked a necessary step toward addressing the urgent issue of declining pollinator populations. Pollinator Week has now grown to be an international celebration of the valuable ecosystem services provided by bees, birds, butterflies, bats, and beetles. The growing concern for pollinators is a sign of progress, but it is vital that we continue to maximize our collective effort. The U.S. Secretary of Agriculture signs the proclamation every year.

Pollinating animals, including bees, birds, butterflies, bats, beetles and others, are vital to our delicate ecosystem, supporting terrestrial wildlife, providing healthy watersheds, and more. Therefore, Pollinator Week is a week to get the importance of pollinators' message out to as many people as possible. It's not too early to start thinking about an event at your school, garden, church, store, etc. Pollinators positively effect all our lives-

**let's SAVE them and CELEBRATE them!**





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