Jennings County Pollinator Habitat

Jennings County, Indiana Creates 600 New Pollinator Habitat Locations

Project Summary

Pollinators are responsible for about 75 percent of the fruits and vegetables we eat, but the populations of bees, butterflies, wasps, birds, and other pollinators are rapidly declining across the globe. In 2015, the Jennings County Soil and Water Conservation District <http://www.jenningsswcd.org/index.php> sought to address this issue by creating new pollinator habitat across the county through the “Share Some Space” program. For four and a half years, the Soil and Water Conservation District worked with local, state, and national partners to create pollinator habitat and educate its residents on the importance of pollinators. The program resulted in 600 new pollinator habitats, ranging in size from a single square meter to multiple acres.

A butterfly perched on a milkweed plant. Image from the United States Department of Agriculture Natural Resources Conservation Service

How did they do it?

Action	Applicable Resources

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Informed and educated the public about the decline in pollinator populations and their importance to the growth of fruits and vegetables • Integrated education on the importance of pollinators into K-12 school curricula. • Invited local newspapers to cover the topic, published articles online, and developed a billboard message.	• The U.S. Fish and Wildlife Service has curated resources on gardening for pollinators <https://www.fs.usda.gov/wildflowers/pollinators/gardening.shtml> . • Pollinator Partnership <https://www.pollinator.org/learning-center/education> provides curriculum, educational tools, activities, and other resources for use in the classroom.

Action	Applicable Resources
Worked with farmers to create larger areas of pollinator habitat on or near farmland • Educated farmers on the importance of pollinators and the implications of their declining populations. • Connected farmers to pollinator habitat creation funds.	• The U.S. Department of Agriculture Natural Resources Conservation Service in Indiana offers multiple funding opportunities for pollinator habitat <https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/> , such as CP21 and CP42, through the Conservation Reserve Program. • The Clean Water Indiana Program <https://www.in.gov/isda/2379.htm> provides funds for conservation projects that reduce nonpoint sources of water pollution, which can include pollinator habitat.

Action	Applicable Resources
Funded, planned, and encouraged pollinator habitat creation on public and private property • Provided 1,200 free seed packets and technical assistance on how to construct pollinator gardens. • Sold pollinator-friendly plants to help fund the program. • Facilitated the construction of pollinator habitat at local schools to increase populations and assist educators. • Encouraged local parks, state forests, and national wildlife refuges to create new pollinator habitat.	• The Jennings County Soil and Water Conservation District created the program Share Some Space <http://www.jenningsswcd.org/aboutshare.php> to work with the public on planting their own pollinator gardens. • The Conservation Reserve Program <https://www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-program/index> provides farmers a yearly rental payment to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality.

Action	Applicable Resources
• Created pollinator gardens for businesses and on industry property.	

Background

Pollination is the method by which many plants reproduce. It is integral to the life cycle of flowering plants, many of which produce the fruits and vegetables we eat. The majority of flowering plants rely on pollinators to distribute grains of pollen that enable plants to set seed and fruit. Without pollinators, there would be no apples, pumpkins, or many other fruits and vegetables that Midwestern economies rely upon.

Pollinator populations are declining nationally and locally because of bacteria, viruses, chemicals, seed treatments such as neonicotinoids for pest prevention that have been linked to adverse effects for pollinators, and habitat loss, among other causes. Some of these factors, like seed treatment, are not easy to limit since they are important aspects of food production, particularly in the Midwest.

Pollinators and their habitats are also threatened by extreme weather and climate change. For many plants, the flowering process is guided by changes in temperature, but the animals that serve as pollinators for those plants, whose biological or migratory cycles may be more affected by light than temperature, are not necessarily arriving earlier or later to synchronize with the plants' flowering efforts. Increasing the amount of pollinator habitat can mitigate these issues by providing a more diverse group of plants for pollinators to feed on.

What is a pollinator?

A pollinator is an insect or animal that transports pollen from one flowering plant to another. Pollination is crucial to plant fertilization and the production of fruits, seeds, and new plants. Pollinators can be butterflies, bees, bats, birds, beetles, and wasps, among others.

The Jennings County Soil and Water Conservation District is tasked with protecting the area's natural resources, including soil and agriculture. In response to the threats against pollinators, the Soil and Water Conservation District aimed to achieve three important goals:

1. Inform the community about the declining populations of pollinators with an emphasis on monarch butterflies and bees.

2. Educate the community on the importance of pollinators.
3. Create new habitats and enhance existing habitats.

Implementation

To start, Jennings County Soil and Water Conservation District brought the County Council and Commissioners together for a public dinner. At the dinner, the Soil and Water Conservation District explained that they wanted to launch a project to provide more habitat for pollinators through public engagement.

As a result of the dinner, the County decided to create a committee to oversee a pollinator project. The County made sure to select individuals who had the ability to support the program through their professional positions as well as their personal connections and relationships. For example, a school property manager was included who would have the ability to construct native flower beds on school property. The final committee included 23 people with a wide range of skills and talents, including five biologists.

After building the team, the committee identified land use areas that would be available for hosting pollinator habitat. The committee secured commitments from the owners and managers of the identified sites, which included parks, agricultural fields, schools, and backyards. As the word about the project spread, more park managers, farmers, school staff, and residents got involved by suggesting and donating habitat locations.

The Soil and Water Conservation District also identified partners to support the effort. They worked with the media to inform the public about the efforts and to encourage backyard gardens. The committee wrote articles for local news sources to maintain public support for the project. The national and Indiana offices of the Natural Resource Conservation Service provided 2,500 Burpee Seed Packets for small pollinator areas, and companies like American Axle Factory and Metaldyne MPG Company created pollinator habitats at their respective facilities. The U.S. Fish and Wildlife service provided habitat, seeds, and flowers through the Partners for Fish and Wildlife Program <https://www.fws.gov/partners/> . The North Vernon City Council approved a request made by the committee to plant six acres of pollinator habitat in a local park called Tripton Park. The conversion of active farmland to pollinator habitat was done as part of the USDA Conservation Reserve Program (CRP), which is a voluntary program that pays participants an annual rental rate for decommissioned land. Members of the Soil and Water Conservation District and volunteers donated their time and energy to install many of the habitats. To maintain the pollinator plants and prevent woody vegetation growth, the Soil and Water Conservation District made plans to conduct periodic proscribed burns in conjunction with their partners.

What is prescribed burning?

While it might not always seem like it, fire is a natural disturbance that has shaped landscapes throughout history. Due to naturally occurring fires, certain native plants, including some of the pollinator plants, are adapted to fire, while invasive and other less desirable species are not. By removing fire from the ecosystem, the pollinator plants can be outcompeted and die out. Prescribed fire is a widely accepted tool to assist in pollinator habitat restoration and management to ensure the plants can reproduce while keeping out less desirable species. Learn more from the United States Fish and Wildlife Service';s module on prescribed fire <https://www.fws.gov/program/fire-management> .

The committee hosted native plant and seed sales, which generated funding for the program and doubled as an educational experience where residents learned more about which plants to buy and how to take care of them.

The committee also planned events to educate and engage the public. The Jennings County Public Library created a pollinator display, the Jennings County Wildlife Building hosted a pollinator showcase, and the committee launched a “Build Your Own Pollinator Garden” workshop. The committee also held a Community Pollinator Project Field Day on July 26, 2016, which 124 people attended.

Funding

In addition to plant sales, the committee funded their conservation efforts with money from the Soil and Water Conservation District, grants, and donations. The Soil and Water Conservation District allocated a portion of its budget to start and maintain the initiative. The committee received grants from Indiana State Soil Conservation Board, the local Walmart, and the US Fish and Wildlife Service Partners for Wildlife program. Various conservation clubs made donations to the project, including the Coffee Creek Conservation Club which donated $1,500. Industry and businesses in Jennings County donated both money and product, and often allowed for pollinator habitat to be constructed on their property, including a 1000 square foot pollinator area funded by $100 each from nine businesses. Furthermore, North Vernon’s City Council approved $3 million to build Tripton Park, which provides trails that make the six-acre pollinator areas more accessible.

Some habitat projects received project-level funding. For example, local businesses and civic groups gave $10,000 toward the creation of the pollinator pathway.

The conversion of farmland to pollinator habitat was funded by the USDA’s Conservation Reserve Program. These funds were supplemented through grants from Clean Water Indiana and the Farm Service Agency, which allowed for property owners to receive an additional $100 per acre. Several other organizations, agencies, and residents helped support the initiative through donations and volunteering.

Timeline

The Pollinator Plan began in June of 2015 and ran for four and a half years until the winter of 2019.

Equity and Justice

The program did not specifically address equity or justice. However, the Soil and Water Conservation District distributed free seed packets that went to people of all incomes and backgrounds. The pollinator habitats were also planted in public areas such as schools, parks, and national wildlife refuges.

Outcomes and Conclusions

The program established 600 new pollinator habitats, ranging in size from a single square meter to multiple acres. Through the Farm Service Agency and Clean Water Indiana funding, at least 440 acres of wildlife area, field borders, and filter strips were created. The field borders and filter strips, which are areas of vegetated land surrounding the fields and border water source, also help to control nutrient runoff from farmland. In one 10 foot by 10 foot area, program staff counted 12 pollinators on the plants. Using this observation, program staff estimate there are roughly 952,000 pollinators across the newly planted habitat.

Some of the significant habitat creations include:

- Five acres at Eco Park, a county park for fishing and camping
- Four acres at Calli Nature Preserve
- 2,500 acres burned annually to create new pollinator habitat at Big Oaks National Wildlife Refuge
- 48 acres in Muscatatuck National Wildlife Refuge
- 430 acres of filter strip areas and field borders in agricultural fields
- Monarch butterfly gardens at six different elementary schools
- 3.75 acres at a middle school
- 10.5 acres at the Jennings County Sand Creek School property

The committee also measured success through public opinion and general observation. Initially, the public was skeptical about the installation of pollinator habitats because they were thought to be too weedy. By the third year, the project was accepted by the community and pollinators were frequently visiting the new sites. In addition, people outside of Jennings County have traveled to North Vernon to see the newly renovated Tripton Park and the pollinators and songbirds it now hosts.

The Soil and Water Conservation District believes that public awareness on the role of pollinators in the food system has increased. Many people did not realize how much food is available thanks to the service of pollinators or how disrupted our diets could become as the climate changes. In addition to

increasing the number of pollinators in Jennings County, the committee observed an increase in songbird populations. The Soil and Water Conservation District also noted that the native plant sales generated a fun atmosphere that greatly improved public participation in the project. These successes have convinced other counties, including Jefferson County, Franklin County, and Bartholomew County, to start similar initiatives.

Project Resources

- See the locations of these pollinator habitats on the Jennings County Pollinator Map <http://www.jenningsswcd.org/map.php>
- Learn more about Indiana's Pollinator Protection Plan <https://www.in.gov/isda/programs-and-initiatives/pollinator-habitat/>
- Find more resources for creating pollinator gardens <https://www.fws.gov/midwest/news/PollinatorGarden.html>

For more information about Jennings County's pollinator initiatives, contact:

Andy Ertel
Jennings County Soil and Water Conservation District
Executive Director and Watershed Coordinator
richard.ertel@in.nacdnet.net
812-346-3411

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