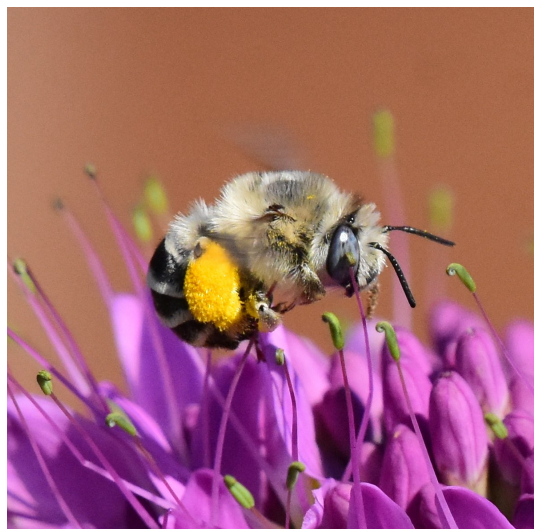
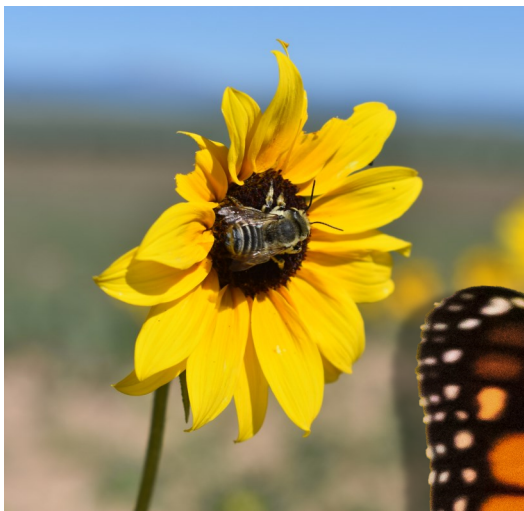




U.S. Fish & Wildlife Service

Center for Pollinator Conservation 2024 Annual Report



U.S. Fish and Wildlife Service Mission

"Working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people."





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Image: Green chrysalis hanging from a branch. Photo by USFWS.

Left image: Fuzzy yellow and black striped bumble bee on top of orange cones in the center of a purple flower. Photo by Ryan Hagerty/USFWS.



Message from the Director of The Center

I'm proud to serve as the Center for Pollinator Conservation's first director. From my childhood growing up on a small farm in Iowa to my 20-year career with the Service, I have a wide array of life experiences to draw on. These continue to shape and inform the way I work within the Center and across different perspectives.

Pollinator conservation is a challenging task filled with barriers many may think to be impassible. The grit and determination the Center team and its various partners show as they continue to work towards solutions to even the most daunting of problems is inspiring. The work accomplished this past year instills hope for the future of pollinators.

The U.S Fish and Wildlife Service is rallying for pollinator conservation by building relationships. People are the at the heart of conservation, so the Service is focused on connection. Habitat for pollinators is something we all can do, and so by increasing awareness, we can ultimately increase action.



Image: A field of pink flowering milkweed backlit by the sun. Photo by Tom Koerner/USFWS.

Increasing pollinator habitat is the single most impactful action we can each take to conserve pollinators. This can come in the form of butterfly gardens, native flowers along roadsides, prairie habitat, and many others.

The accomplishments the Center and its partners were able to achieve this year are amazing, and this is just the beginning. By continuing to focus on connection, partnership, and science, there are no bounds to what we can accomplish in the future.

Nicole Alt

Nicole Alt

Director of the Center for Pollinator Conservation

History of the Center for Pollinator Conservation

Pollinators face a growing crisis with serious implications for our natural ecosystems, agricultural security, and economy. Habitat loss, pesticide use, and climate change are increasing species vulnerabilities and driving population declines, leading to less resilient systems.

Pollinators were at the forefront when the first invertebrate species gained federal protection in 1976, under the Endangered Species Act of 1973. The first listed pollinator was the Schaus swallowtail butterfly. Today, iconic species, like the monarch butterfly and the American bumblebee, are joined by a growing list of more than 90 at-risk pollinators that require urgent science-based solutions and innovative collaborations to support their conservation.

In 2014, it was the decline of the monarch that launched a broader effort to increase pollinator habitat and increase awareness of challenges facing all pollinators. As we continue investigating and exploring, it is clear that pollinators are interconnected and many of them are facing declines across the globe. As the premier wildlife and conservation agency, we understand that it is our responsibility to address monarch and pollinator conservation. A focus on pollinators also benefits a broad array of other species – amplifying our conservation mission, expanding our partnerships and offering novel ways of working together to tackle increasingly complex environmental challenges. We are still learning and encouraging others to work alongside us to engage in pollinator conservation.

On June 23, 2022, the Center for Pollinator Conservation was established under the guidance of the agency. The Center for Pollinator Conservation collaborates with federal and state agencies, Tribes and additional partners such as energy, oil and gas, timber, agriculture, and academia to connect, coordinate and communicate on pollinator conservation efforts. The Center works to improve the state of pollinator science and assist partners in implementing conservation actions that benefit their operations and pollinators in the U.S. and North America.

In two years, the Center became operationalized as a virtual collaborative space. Thanks to the innovative thinkers that contributed to the creation of the Center. It now has ten full-time staff. The Center primarily focuses on three strategic areas:

- Applied Science – Innovating and investing in learning and making information accessible and applicable.
- Collaboration – Connecting and empowering a networked community to solve issues facing pollinators.
- Engagement – Inspiring conservation through communication, amplifying successes, and developing the workforce of the future.

Today, the Center for Pollinator Conservation continues to co-develop and implement strategic initiatives, provide value-added leadership, increase coordination capacity, amplify on-going successes, learn from challenges, deliver solutions, inspire conservation actions through strategic communications and accelerate the agency's mission. The Center welcomes anyone interested in conserving pollinators to join them.

Background image: A field of purple coneflowers and yellow black-eyed Susan flowers . Photo by T. Caldwell/USFWS.



2022

On June 23, 2022, the Department of the Interior announced the U.S. Fish and Wildlife Service will establish a conservation center to address the decline of pollinators.

2023

Launching of the Center for Pollinator Conservation by the U.S. Fish and Wildlife Service.

Nicole Alt is named Center Director.



2024

Grown the Center to a team of ten people.

Launched the North American BeeTool and Monarch Conservation Opportunities Tool on [fws.gov](https://www.fws.gov).



Today

The Center is a hub for scientific excellence ready to serve the biggest conservation challenges facing pollinators while preparing the agency to work with others.

Center for Pollinator Conservation Achievements

The Center recently finished its first full fiscal year of operations. We've seen exponential growth in partner interest and collaboration. By aligning and dedicating capacity for pollinator conservation, our capacity investment is encouraging others to invest. Current capacity includes a director, western monarch coordinator, biological science lead, bee taxonomist, bee biologist, social science lead, communications lead, refuge pollinator coordinator, and data manager. The Center focuses on advancing applied science, collaboration and strategic engagement for at-risk pollinators and their habitats, amplifying conservation benefits for other priority species and associated social-economic outcomes. Funding is generally split by thirds between capacity and fixed costs, science and partnership investments, and on-the-ground delivery.

Applied Science: Technological and Social Innovations

Applied science investments continue to focus on advancing scalable technological and social innovations to solve pollinator conservation problems, including non-lethal environmental DNA (eDNA) survey techniques, landscape-scale unmanned aircraft, drone, based habitat evaluations, traditional ecological knowledge, and social network analyses. Research investments have also focused on evaluating the effectiveness of conservation solutions, particularly for at-risk bumble bees, monarchs and other butterflies. Highlights include the first-ever national assessment of butterfly status and trends called "State of the Butterflies in the U.S." project is to be completed in FY25 and the "State of the Bees in the U.S." project launched in fiscal year 2024.

Collaboration, Engagement and Strategic Partnerships

Building and aligning collective community efforts to advance conservation is a foundation element of the Center – connection and collaboration. The Center has led a series of virtual engagement workshops,

culminating in a national action plan to guide collaborative pollinator conservation strategies and build a network community. Additional collaborative workshops have focused on tribal and indigenous pollinator stewardship and eDNA applications. The Center is leading strategic collaborations with U.S. Department of Agriculture, Department of Defense, and private industry, and others.

The Center continues to support training and workforce developmental programs to advance applied pollinator conservation skillsets. This includes a pollinator training course at the National Conservation Training Center and offering internships and fellowship opportunities to develop the next generation workforce.

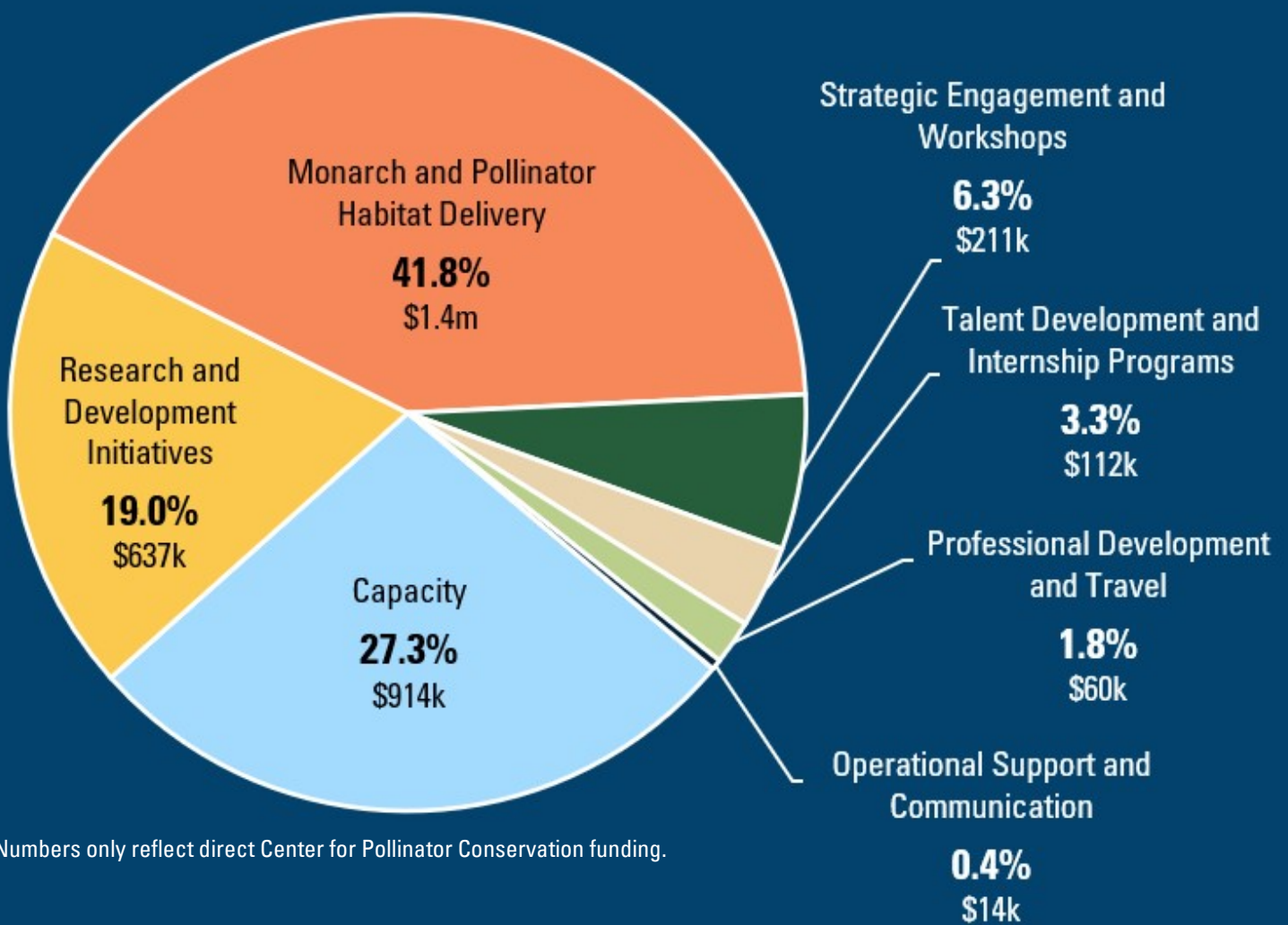
Habitat Delivery

Since 2015, the U.S. Fish and Wildlife Service invested \$8.2 million in the National Fish and Wildlife Foundation Monarch Butterfly and Pollinator Conservation Fund, leading to \$16.8 million in additional partner contributions, with a total impact of \$63 million. This equates to a 4:1 return on agency investments. Results include 140 projects that have 390,000 acres of habitat restored and 1.1 million milkweed seedlings propagated, and held 1,700 workshops. In addition, \$650,000 is committed to Partners for Fish and Wildlife Program for projects across four regions to support increased collaboration and on-the-ground conservation for monarch and pollinators. Overall, the Center invested \$1.4 million to increase habitat for pollinators and other wildlife that benefit.

Fiscal Year 2025

Extensive efforts are underway to expand proactive conservation for monarch and pollinators, leveraging strategic partnerships with U.S. Department of Agriculture, Department of Defense, private industries, and other novel arenas to drive innovations and provide conservation solutions for at-risk species. The Center will also continue to leverage investments for pollinator habitat delivery, via National Fish and Wildlife Foundation and Partners for Fish and Wildlife Program. It recently added two members to the team in fiscal year 2025, hiring a Directorate Fellows Program graduate in a career development biologist position and an agriculture partnership lead for the Center.

FY 2024 Distribution of Center Funding by Focus Area



Natural Resource Program Center Collaboration

The Center and the Natural Resource Program Center are collaborating to ensure a cohesive, cross-programmatic pollinator strategy. The Natural Resource Program Center works with the Service's national wildlife refuge system to identify cross-regional pollinator inventory and monitoring priorities, collaboration opportunities, and to provide science support for implementing pollinator surveys. The Natural Resource Program Center staff serve as refuge liaisons to the Center and, together, identify opportunities for collaboration, strategic alignment, and cross-programmatic project support. Refuge pollinator projects incorporate the Center priorities of applied science, collaboration and engagement, and include habitat delivery, research, monitoring, and partnership building.

Surveillance Monitoring

The refuge system conducted surveys to assess the status of the monarch butterfly and other pollinators, as well as pollinator habitat on Service lands. This included traditional surveys using standardized survey protocols, as well as piloting new technologies. For example, refuges in the Mountain-Prairie region combined traditional pollinator surveys with eDNA surveys to evaluate whether this new technology has the potential to improve our ability to collect data on monarch and other pollinator populations at a broader scale through less time-intensive inventory methods. Additionally, refuges collaborated with the Monarch Joint Venture to integrate monarch data collected by the U.S. Fish and Wildlife Service into a central database managed by Monarch Joint Venture where it can be used to inform landscape-scale population analyses.

Effectiveness Monitoring

Refuges conducted surveys to evaluate the efficacy of pollinator habitat restoration and management on refuge lands and refine best management practices. For example, refuges in the Mountain-Prairie and Midwest regions are collaborating to investigate the extent to which prairie restoration practices implemented on refuges are currently able to mimic native, undisturbed grassland breeding habitat, and refine management practices accordingly.

Assumption-driven Research

Additionally, the refuge system implemented studies designed to evaluate assumptions and improve best management practices for monarchs and other pollinators. For example, the refuges in the Pacific and Pacific Southwest regions are evaluating how far pesticides used on private lands drift onto refuge lands, and the implication for pollinator communities.

Leveraging Partnerships

Refuges in every region leveraged their funding for pollinator conservation delivery through collaborative partnerships with other agencies, academic institutions, and community scientists. This included maximizing the ability to answer questions about management effectiveness and pesticide impacts by collaborating cross-regionally. It also included engaging community scientists, refuge volunteers, and students to increase capacity for field-based data collection. Refuges collaborated internally at a national level to develop unified priorities, standardize surveys and data collection, and to develop data visualization tools that synthesize and summarize information collected in refuge data tracking systems.

Fiscal Year 2025

Refuge pollinator conservation efforts in 2025 will be dedicated to building upon and expanding this foundation. Refuges will continue to prioritize studies that evaluate the efficacy and impacts of on- and off-refuge management actions for pollinators, to improve best practices and ensure that management activities support the recovery of monarchs and their habitat. Refuges will continue to collaborate internally to ensure a unified approach, and with federal, state, Tribal, non-governmental organizations, and academic partners to maximize conservation delivery. Additionally, refuges will offer opportunities to engage and educate the community on the importance of pollinators to wildlife and people.



Image: Brownish-red rufous male hummingbird flying. Photo by Roy W. Lowe/USFWS.

Front cover photos (L-R): Green and brown ruby-throated hummingbird sipping nectar out of small purple flowers. Photo by Bill Thompson/USFWS.

Yellow bee with black and white stripes sitting in the center of a yellow flower. Photo by Anna Blades/USFWS.

Small blue hops azure butterfly sitting on a green leaf stem. Photo courtesy of Michael Menefree/Colorado National Heritage Foundation.

White butterfly with a light brown and black wing pattern sipping nectar out of a small white flower. Photo by Garry Tucker/USFWS.

Yellow and black oblique streaktail hoverfly sitting on a yellow sunflower petal. Photo by Courtney Celley/USFWS.

Large orange, black and white monarch butterfly flying. Photo by Mike Budd/USFWS.

Green sweat bee with yellow and black stripes and black sweat bee with white stripes foraging pollen and nectar from a small yellow Nuttall's sunflower. Photo by Tom Koerner/USFWS.

Fuzzy white digger bee with black stripes and yellow pollen stuck to its legs hovering over a purple flower. Photo by Tom Koerner/USFWS.

Black firefly with yellow edging on its wings sitting on a green leaf. Photo by Bruce Hallman/USFWS.

Center for Pollinator Conservation

Conserving pollinators with you and for everyone

Learn more about the Center!