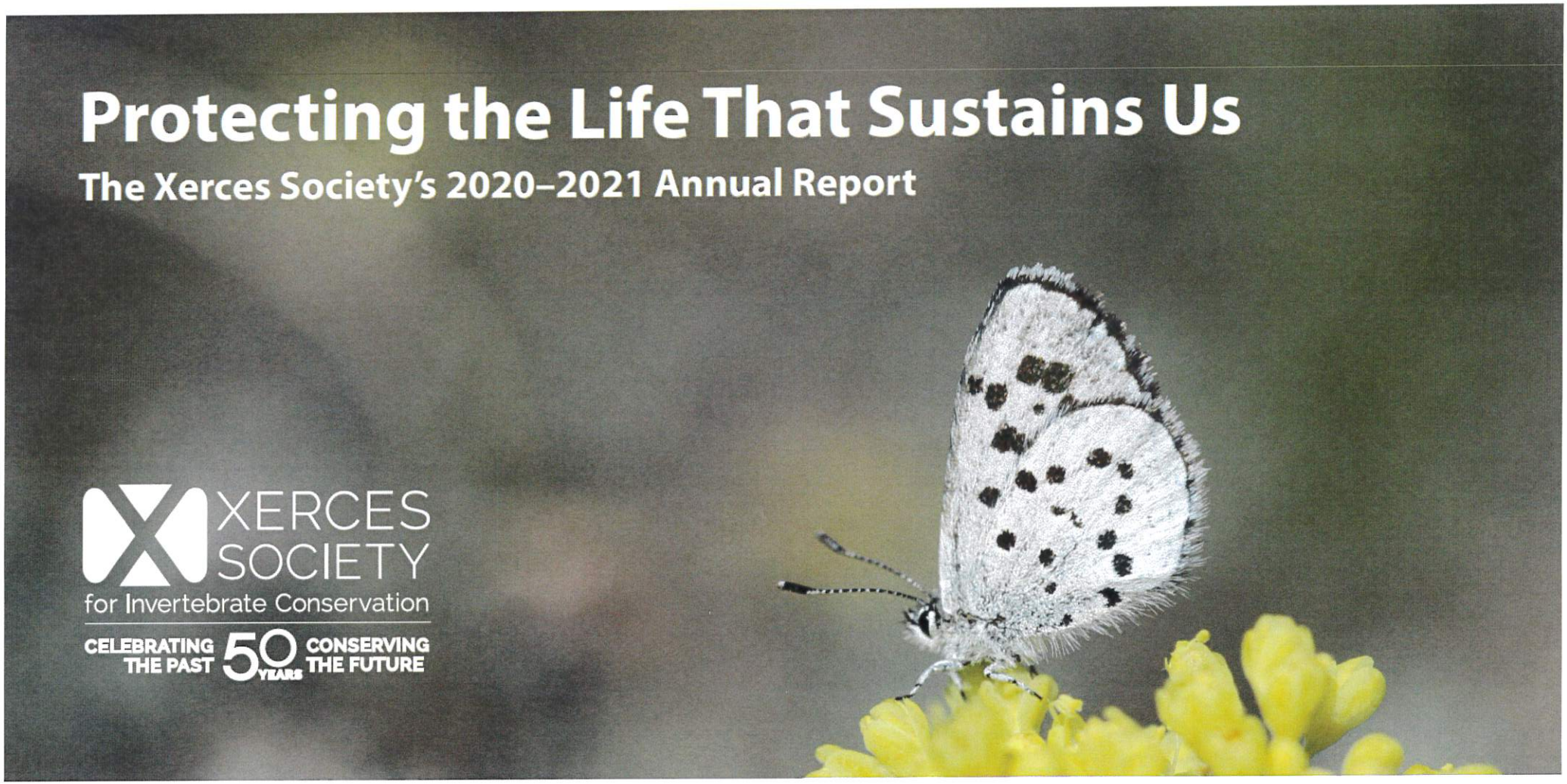
Protecting the Life That Sustains Us

The Xerces Society's 2020–2021 Annual Report



XERCES SOCIETY
for Invertebrate Conservation

CELEBRATING THE PAST 50 YEARS CONSERVING THE FUTURE

Making the World Safer for the Diversity of Life

The Xerces Society is dedicated to protecting the natural world through the conservation of invertebrates and their habitats. We make real conservation gains possible for pollinators, endangered species, and numerous other invertebrates vital to the stability of our ecosystems. By protecting the environment and our communities from pesticides, building and restoring habitat, and involving a growing number of people in this work, we help these animals thrive.

While the coronavirus pandemic curtailed in-person interactions over the past year, we were fortunate to expand our programming and reach. We successfully retooled our events with a new webinar series, reaching more than twice our normal audience. We restored tens of thousands of acres of pollinator habitat on farms and natural lands. Our Bee City USA, community science, and pollinator habitat kit projects all gained momentum. We continued to advance conservation science for invertebrate species, launched a new series of workshops about soil ecology, and led a campaign to make bee-safe plants more available at nurseries across the country.

Alongside these successes, the threats we face are ever present—climate change, biodiversity loss, pesticide use, inequality, racism, and a pandemic. All of these problems put the diversity of life on Earth, both human and nonhuman, at risk. To achieve our mission, we must work with a diversity of people and organizations in cities, towns, and rural areas, and especially with the communities who have borne the greatest impacts of these intersecting crises. All of us need pollinators and other insects and it is vital that we work with and support all communities in conservation.

With the right tools in hand, people everywhere are protecting and restoring habitat for the myriad animals that help run our ecosystems. Whether working on farms or natural areas or planting an urban meadow or wildflower garden, we will empower people to take action, using the best conservation science to guide us. Looking to the future, we are focusing on nature-based climate solutions to ensure that the work we do now will stand the test of time. These climate solutions allow us to focus on what we do best: protecting, restoring, and managing habitat for invertebrates now and long into the future.



(Photo: Xerces Society / Sarah Foltz Jordan.)

Xerces Turns 50: A Half Century of Ground-Breaking Conservation

For many people, the half-century landmark might seem surprising—improbable, even—for an organization that is focused on protecting and promoting animals that are frequently seen as an irritation or pests. But over the decades, with Xerces' help, insects and other invertebrates have increasingly become recognized for what they truly are, what long-time science advisor E. O. Wilson so memorably described as "the little things that run the world."

Xerces wouldn't be where it is today if in 1971 Robert Michael Pyle had not established a conservation group, named for the first butterfly recorded to go extinct in North America due to human activity—the Xerces blue—as a way to prevent other species from meeting the same fate. Beginning as an organization focused on butterfly conservation, for the first dozen years, Bob ran Xerces alongside a group of dedicated volunteers; then, a small group of staff carried Xerces through the end of the century, establishing it as a respected conservation organization.

Over the last 20 years the organization has grown considerably. With more than 50 staff, the Xerces Society is now the largest invertebrate conservation organization in the world and has the largest pollinator conservation program of any nonprofit. Our conservation reach extends across North America, and with the help of our partners, we now have a global presence. Xerces has become internationally respected for its work and is a trusted source for science-based information and advice. Our team draws together experts from the fields of conservation biology, entomology, habitat restoration, plant ecology, pesticides, farming, education, and community engagement with a single passion: Protecting the life that sustains us.

Our work has led to the restoration and protection of more than 2.5 million acres of habitat for invertebrates and to habitat improvements across tens of millions of additional acres. We have built community science and engagement programs that involve thousands of people across the country each year and empower them to be part of the solution, and we now coordinate a network of over 260 cities, towns, and college campuses dedicated to conserving pollinators through Bee City USA. We help farmers get the resources they need to move towards more regenerative practices and we even created the first pollinator-focused, third-party-verified certification program and ecolabel, Bee Better Certified. Every year, we reach more people through these programs and our media presence—reaching a record 2.2 billion people last year.



(Photo: Ray Moranz.)

Helping Farmers Adopt Regenerative Practices

154,000 acres of pollinator habitat restored on farms.

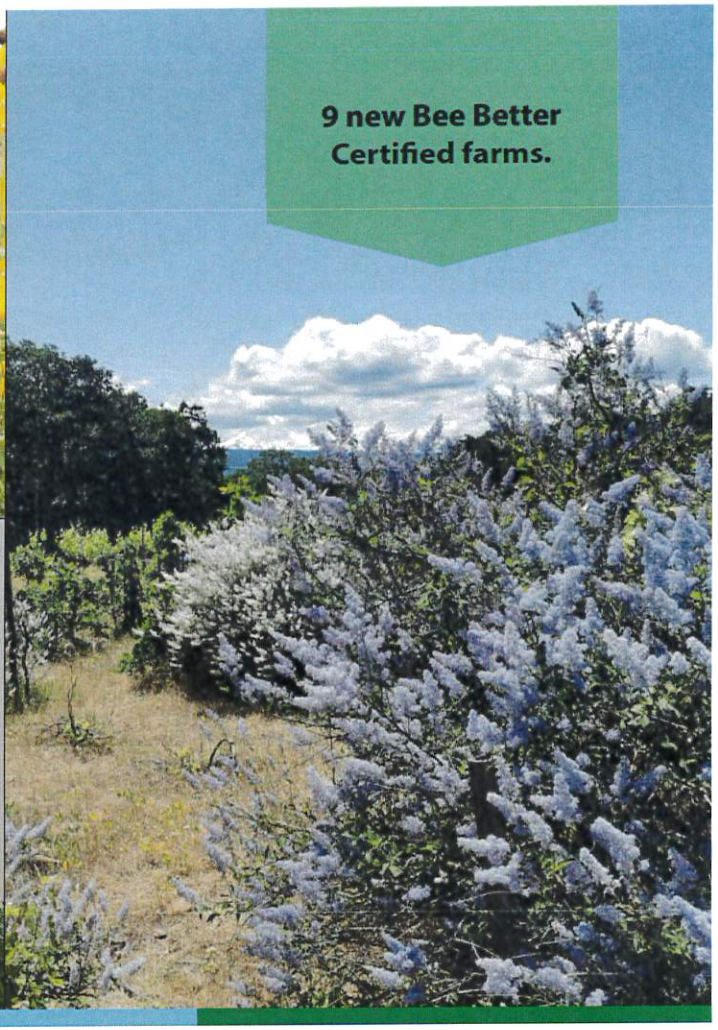
352 projects directly supported conservation work on agricultural lands.

Accounting for nearly 40% of land globally, agriculture is the biggest use of land in the world and a major focus of our work. Xerces' support for thousands of farmers each year has led to over 1.5 million acres of pollinator habitat restored or protected on farms and ranches over the last decade.

We work with farmers on habitat projects of all scales and we provide the opportunity to become Bee Better Certified™ through the first and only third-party certified, pollinator-focused farm and food product eco-label. Currently, 22 crops and more than 12,000 acres of farmland are Bee Better Certified, with nine farms receiving certification in the last year. All these farms are making their lands more resilient by eliminating harmful pesticide uses and incorporating ecologically-sound practices.







9 new Bee Better Certified farms.

Pollinator habitat thriving on farms in Iowa (upper left) and Washington (right), and products with ingredients sourced from Bee Better Certified farms (lower left). (Photos: Xerces Society / Cameron Newell [upper left], Kiva Dobson [right], and Emily Balius [lower left].)



68,567 plants for pollinators were planted by 319 partners in 11 states.

Bringing Pollinator Plants to the People

We realized that a great way to expand our capacity to create habitat for pollinators was to work with partners who already have interest in and experience with habitat restoration work. Thus, the Xerces Society Habitat Kit program was born! This unique program offers carefully selected, sustainably grown, regionally appropriate native plant materials to our partners for shovel-ready projects. The program started in California, where we created climate-smart habitat kits designed to help both monarch butterflies and other pollinators. Due to the success and popularity of the program, in 2021, we expanded it to the northeastern United States and to Santa Fe, New Mexico.

These habitat kits are planted in a wide range of places including working lands, natural areas, parks, preserves, schools, and community spaces. The sites are then used for education and outreach events, outdoor classrooms, learning labs, urban farms and gardens, youth programs, community science, and more—giving the projects greater value than the ecological benefits alone.

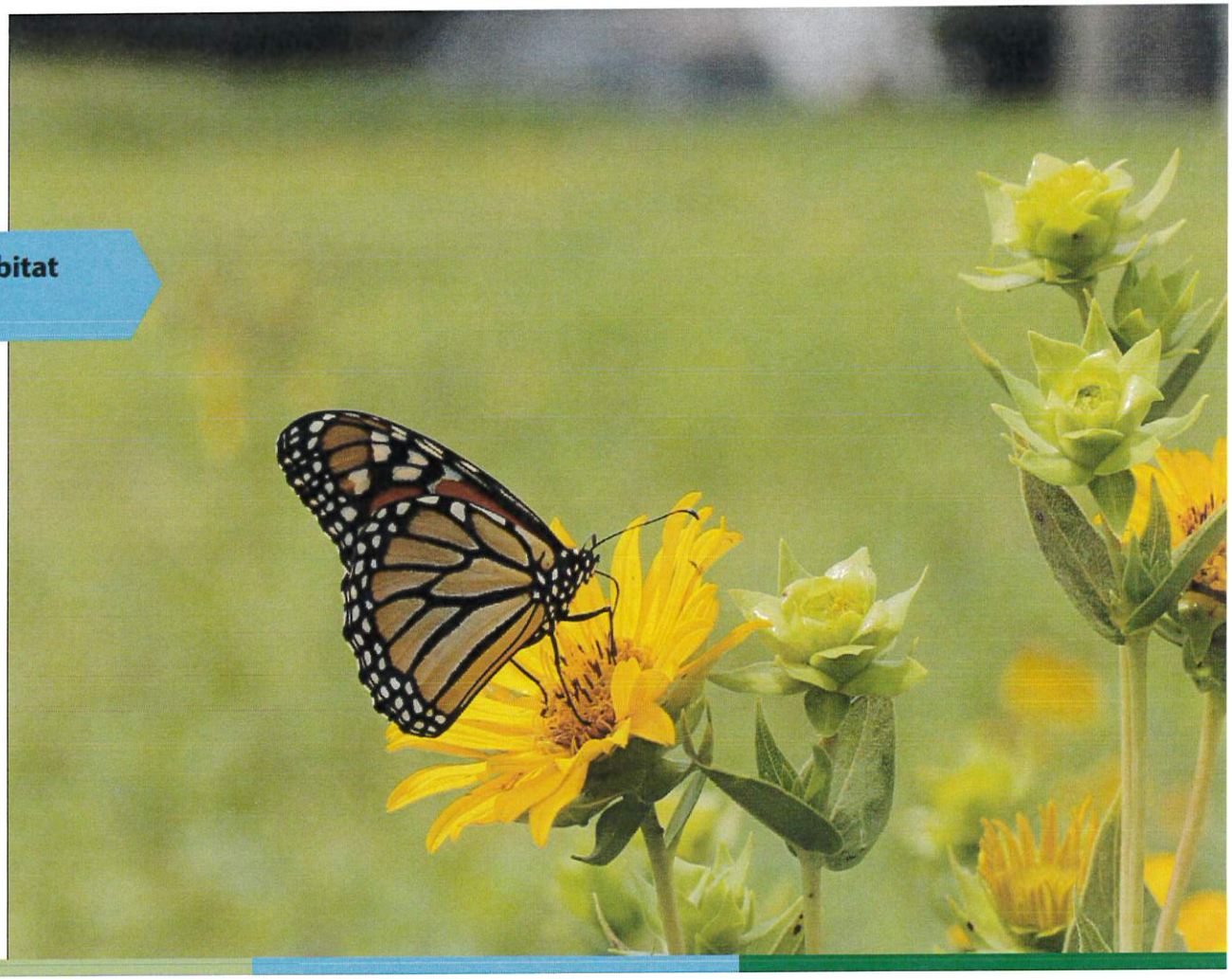
New Roots Community Farm in New York City received a kit that contained a diversity of wildflowers and flowering shrubs, including milkweed—the host plant for monarch butterflies—and nectar plants that support adult monarchs, native bees, and other beneficial insects. (Photo: Dina Garcia.)

Fighting for the Survival of Monarchs

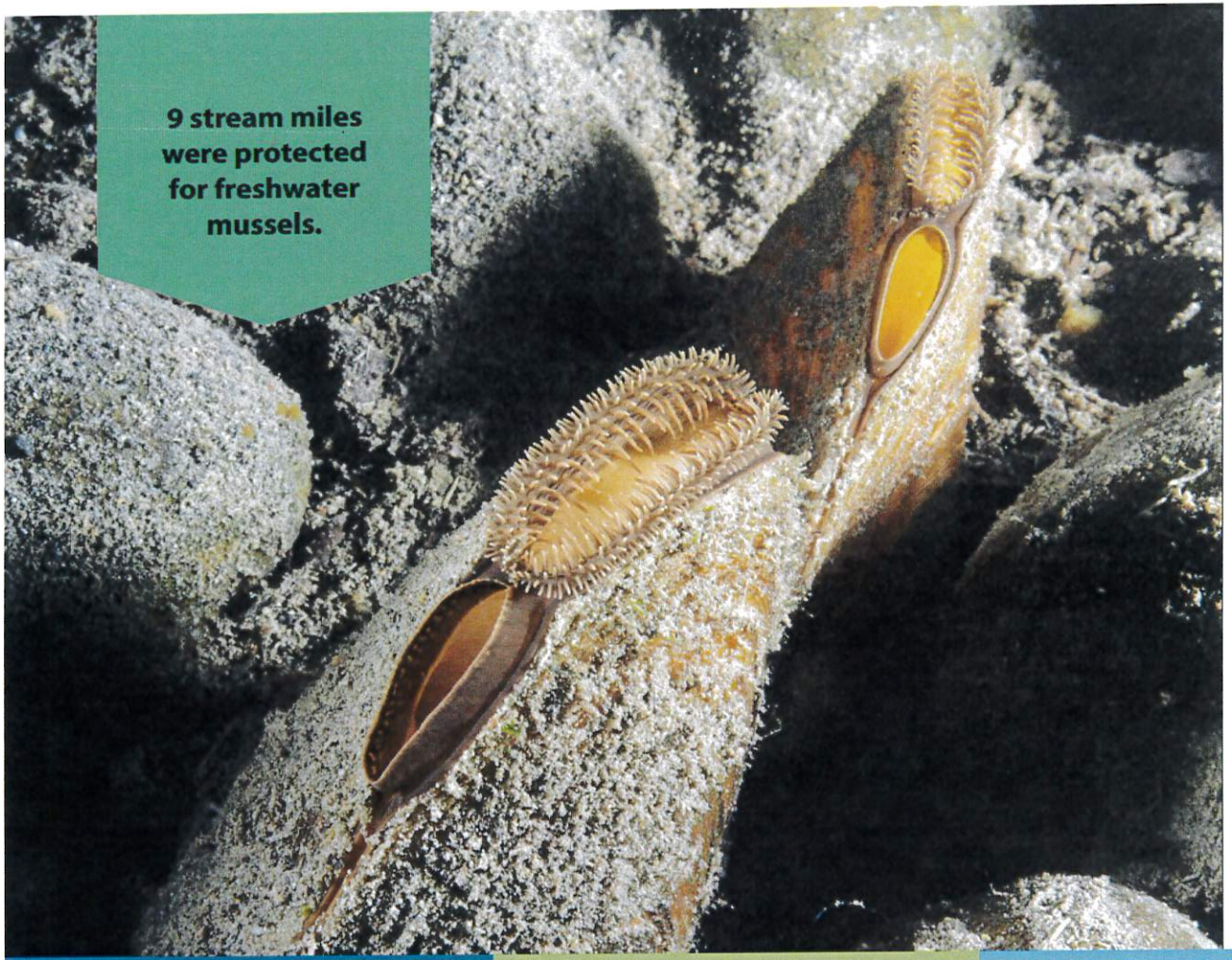
232 farms in 27 states restored or managed habitat for monarch butterflies.

Celebrated for their long-distance seasonal migration and spectacular winter gatherings in Mexico and California, monarch butterflies have recently declined to dangerously low levels. We are on the verge of losing the migratory population in the West, which has crashed by 99.9% since the 1980s, and the eastern population may not be far behind.

With our help, farmers, gardeners, land managers, educators, and others are restoring habitat across North America for these beloved animals. In the last year, over 200 farms in 27 states created habitat and adopted land management practices that will support monarchs for years to come. With numbers at critically low levels in California, we also worked with partners in an emergency effort to mobilize habitat restoration in areas vital for monarchs. We have given away thousands of milkweeds and native wildflowers to restore habitat in the highest priority zones and hold out hope that the monarch population will recover.



A monarch butterfly nectars on rosinweed in a wilderness preserve in Nebraska. (Photo: Xerces Society / Jennifer Hopwood.)



Working from the (River) Bottom Up to Conserve Freshwater Mussels

Freshwater mussels, or "living rocks," perform incredible feats: filtering gallons of water every day to produce cleaner, clearer water you may later draw from the tap; enhancing river bottoms to support fish and the many invertebrate species that feed them; and serving as food to other species like river otters. Freshwater mussels touch many lives, from the smallest species to the communities we live in. Over the last year, we worked from the (river) bottom up to conserve mussels: conducting surveys across 35 rivers to fill data gaps; working with nearly two hundred biologists and land and water managers to identify and protect fragile mussel beds, especially during in-water river restoration and construction work; and investigating causes of mysterious mussel die-offs. This year, after more than a decade of work and following our petition to the US Fish and Wildlife Service, the western ridged mussel is now under consideration for protection under the Endangered Species Act.

Freshwater mussels blend in among the rocks in a lake in Olympic National Park. (Photo: USFWS / Roger Tabor.)

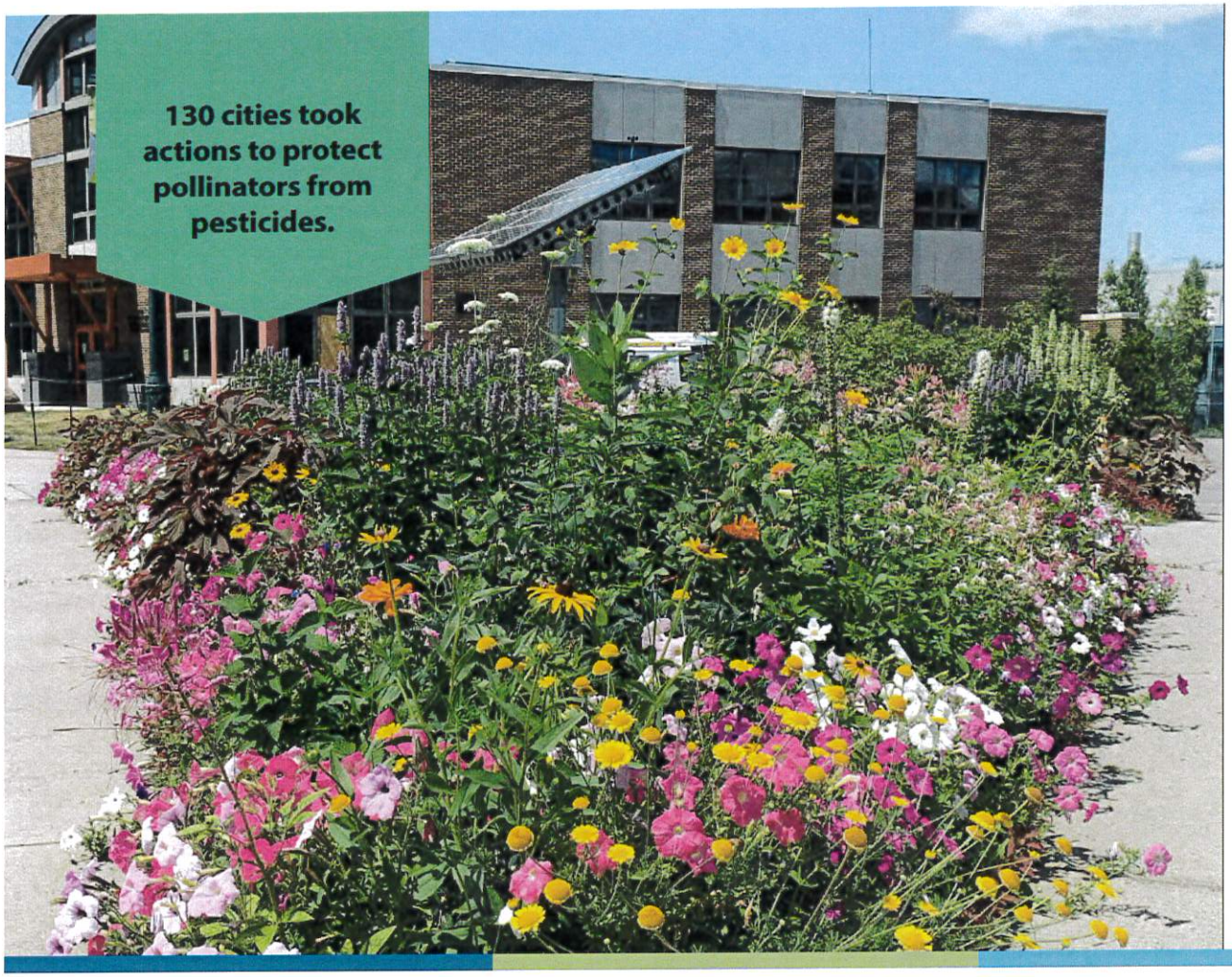
Conserving Bumble Bees across the United States

1,000 volunteers conducted more than 1,250 bumble bee surveys and contributed more than 14,500 bumble bee observations.

Bumble bees, with their fuzzy bodies, colorful patterns, and benign nature, share our farm fields, meadows, backyards, and parks and have captured people's attention and piqued their curiosity. Unfortunately, research from around the world suggests that up to a quarter of bumble bee species are at risk of extinction, but we lack the data necessary for comprehensive estimates of their populations. Seeking to collect better data, we have expanded our bumble bee atlas projects across the United States to develop a more comprehensive assessment of bumble bee populations. Bumble bee atlases are now active in six states in the Pacific Northwest and Midwest, spanning nearly 500,000 square miles—roughly 13% of the US! These projects are advancing our understanding of bumble bee distribution, population status, and ecology and directly informing the recovery of rare species like the western bumble bee. The success of our work has led to the listing of the Franklin's bumble bee as an endangered species under the Endangered Species Act in 2021 and the forthcoming launch of atlases in four more states in 2022!



A bumble bee nectaring on a thistle in a midwestern prairie. (Photo: Justin Meissen, flickr.com (CC BY-SA 2.0).)



Creating Pollinator-Safe Havens in Our Communities

Pesticide use continues to threaten bees and other pollinators in urban landscapes, but communities across the country are taking a stand to protect these important insects. Together with our Bee City USA affiliates, we are shifting pesticide practices to protect pollinators and people from harm. In 2020, 130 cities reduced pesticide use and expanded the use of ecological pest management methods, including adopting non-chemical pest prevention practices, using only organic pesticides, or eliminating pesticide use all together.

Our newest pollinator protection initiative encourages nurseries to incorporate pollinator-friendly pest management into their business practices. In the spring of 2021, we launched a nationwide Bee-Safe Plants campaign with resources on bee-safe plants for nurseries and gardeners and an online workshop that reached nearly 300 people from 38 states. We're now building a movement of consumers, retailers, and suppliers from Washington to Massachusetts to provide plants free from bee-toxic pesticides.

Cities and campuses across the country are creating safe places for bees and butterflies like this pollinator garden at the University of Vermont, a Bee Campus USA affiliate. (Photo: Mark Starrett.)

Supporting the Creatures beneath Our Feet

794 people joined our Farming with Soil Life workshops.

Underneath the Earth's surface lives a vast diversity of life. Soils are home to springtails, ground nesting bees, firefly larvae, and hundreds of thousands of other animal species critical to sustaining ecosystems. These animals break down organic matter, increase soil fertility, filter water, control pests, and more. Of these soil animals, 99% are invertebrates.

To draw attention to the life found in our soils, in 2021, we released a new guide, *Farming with Soil Life: A Handbook for Supporting Soil Invertebrates and Soil Health on Farms*. Along with this handbook, we launched a series of "Farming with Soil Life" workshops to introduce people to the diverse species that live in the soil and the role they play in soil health. Through these events, nearly 800 participants learned about farming practices that conserve soil life, and we plan to offer many more workshops in rural and urban agricultural communities across the country.



For the first time, there is a nationwide conversation about the paramount importance of soil biology. Xerces is positioned to become a leading voice in the field. (Photo: Colette Kessler, South Dakota NRCS.)



Advancing the Science of Invertebrate Conservation

A crucial step towards protecting invertebrates is to identify the species in greatest need of conservation attention—a process that requires the methodical collection of data and then spreading the word to raise awareness about their plights. To that end, we produce detailed species assessments for a variety of imperiled invertebrate species. This year, we worked with partners to complete extinction risk assessments for 132 firefly species that occur throughout the United States and for 15 Pacific Northwest invertebrate species: three butterflies, one bumble bee, and eleven terrestrial and aquatic mollusks. We also profiled an additional 27 bumble bee species to aid land managers in creating and supporting the habitat that these creatures need. These assessments provide information on the species' risk of extinction, locations, life histories, threats, and conservation needs. All of this information helps researchers, conservationists, and public agencies better understand how to manage for and protect these species.

Historically broadly distributed in western North America, the western bumble bee is now at risk of extinction. (Photo: Xerces Society / Rich Hatfield.)

Connecting with People to Help Conserve Invertebrates

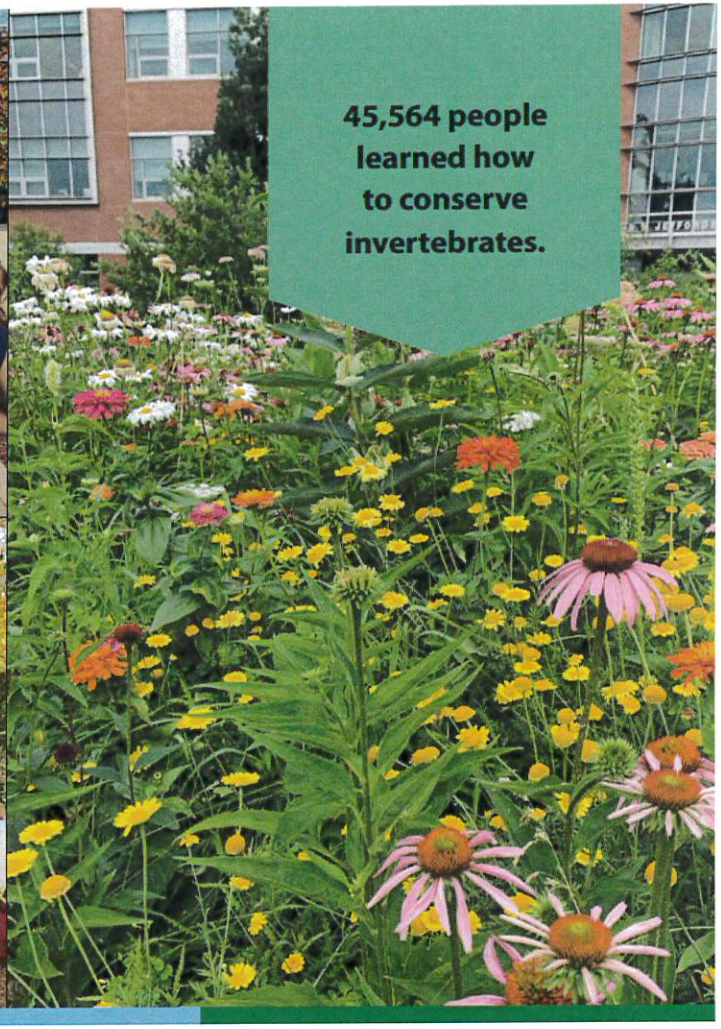
59 communities committed to protecting pollinators through Bee City USA and Bee Campus USA.

6,613 volunteers created 764 pollinator habitat projects across the country.

As the pandemic challenged us to find new ways to engage people remotely, we found we were able to more than double the participation in our events by offering webinars. This year, all 35 of our Xerces Volunteer Ambassadors, based in ten different states, were trained to represent our mission through various digital forums—helping us reach a broader audience. During this difficult time, it was heartening to see more people dedicating time to garden and strategize ways to improve their local environment—including 36 cities and 23 campuses joining our Bee City USA and Bee Campus USA program, for a total of over 260 communities working to make places safer for pollinators.







45,564 people learned how to conserve invertebrates.

Bee City USA and Bee Campus USA affiliates survey for bumble bees (upper left), have a flourishing pollinator garden (right), and install native bushes for pollinators (lower left). (Photos: Nick Dorian [upper left], Mark Starrett [right], and Bee Campus USA - University of Vermont [lower left].)



Thank you to Our Partners, Volunteers, and Supporters

Protecting the millions of invertebrates and the natural world upon which we all depend is a big job and we couldn't do it without you. We would like to thank:

- Our loyal, thoughtful, and generous Xerces Society members and donors around the globe.
- Over 40 companies working with us to make the world a better place.
- Hundreds of farmers who partner with us to create and maintain habitat.
- Thousands of community scientists and over 100 scientists from around the world who help inform our conservation strategy.
- Xerces Ambassadors who help people learn about invertebrates and how they can make a difference in their own communities.
- Over 260 Bee City USA and Bee Campus USA affiliates that are improving habitat for pollinators and increasing awareness.
- Volunteers who helped with webinars and presentations, supported the development of a new youth program, and worked on other essential projects.
- Dozens of organizations and agencies partnering with us to advance wildlife conservation and sustainable agriculture.
- Our board of directors.
- Everyone who goes out of their way to help invertebrates, from planting more flowers and giving up pesticides to encouraging their neighbors or representatives to protect habitat for invertebrates.

Our newly redesigned pollinator habitat sign is now available in both English and Spanish for a donation at xerces.org/gifts. (Photo: Xerces Society / Suzanne Granahan.)

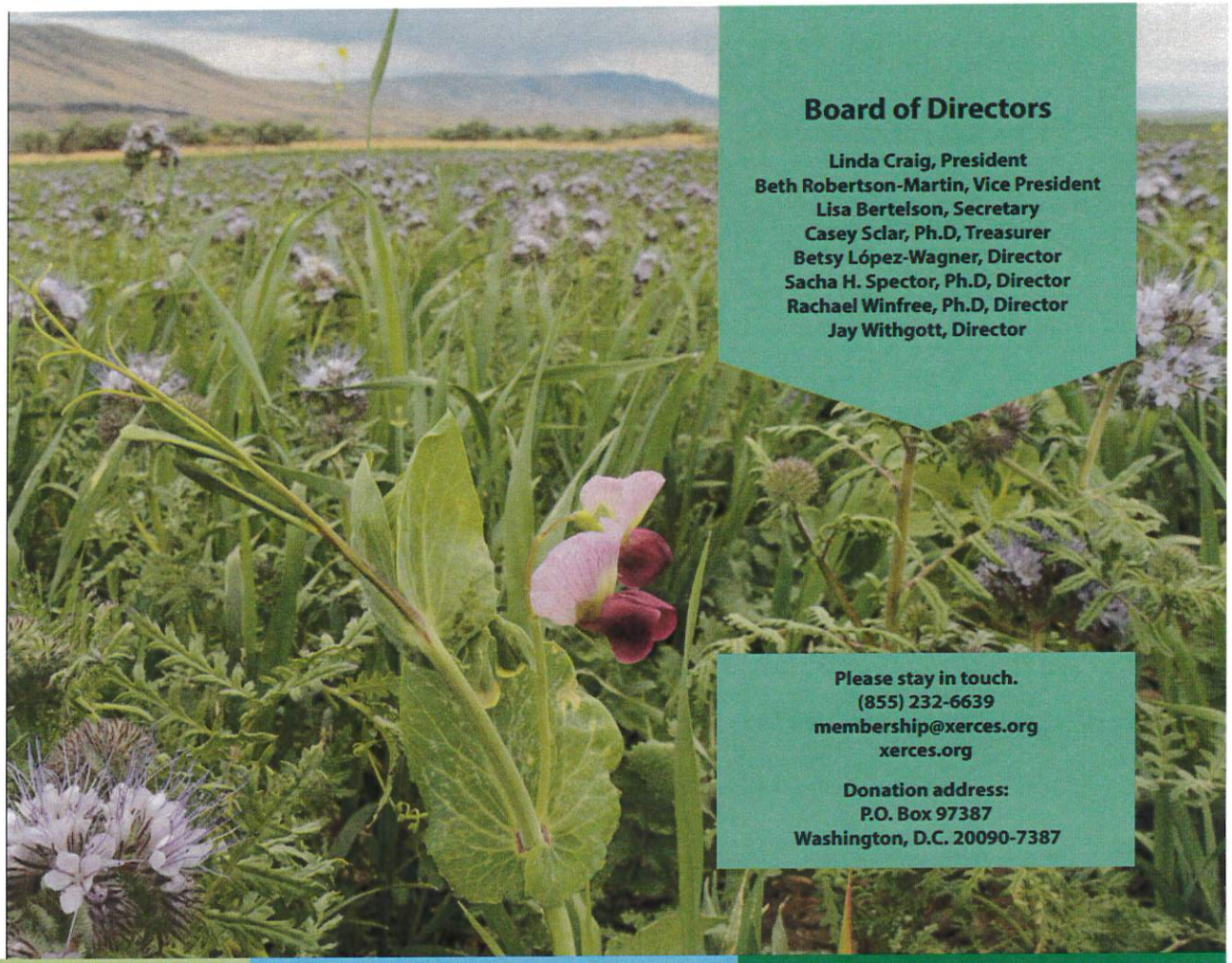
2020 Financial Report

Financial Activities January to December 2020 (Audited)

REVENUE		
Individual donations	$2,068,888	34%
Foundation & corporate giving	$1,800,618	29%
Government contracts	$1,342,418	22%
Program revenue	$ 757,473	12%
Net other revenue & unrealized gain	$197,393	3%
Total revenue	**$6,166,790**	

EXPENSES		
Pollinator conservation	$2,052,586	
Endangered species	$1,020,246	
Community engagement	$271,644	
Pesticide reduction	$220,750	
Other conservation	$216,140	
Total programs	$3,781,366	76%
Development & membership	$739,396	15%
Management & general administration	$448,810	9%
Total expense	**$4,969,572**	
Net income	*$1,197,218*	
End of year net assets	*$7,934,175*	

(Photo: Garrett Duyck, NRCS Oregon.)



Board of Directors

Linda Craig, President
Beth Robertson-Martin, Vice President
Lisa Bertelson, Secretary
Casey Sclar, Ph.D, Treasurer
Betsy López-Wagner, Director
Sacha H. Spector, Ph.D, Director
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