

Xerces Update

Donor Newsletter of the Xerces Society

September 2021

We live in a busy world with no shortage of information and activity. Yet every time we ask for help our supporters respond in ways that surpass our expectations, devoting valuable time and energy to help tiny creatures that are easily taken for granted.

Some of this we can measure, like the number of observations individuals have submitted to our community science programs, the number of acres planted by all of you who have taken the Pollinator Protection Pledge, and the number of you who have participated in our educational webinars to expand your knowledge. Much, however, can't be measured but is hugely impactful, like the small conversations you have with friends and neighbors on why you are replacing your lawn with flowers or why you plan to leave the leaves this fall.

We want to thank you all, however you choose to participate, for doing your part to make a difference in preserving the biodiversity of this beautiful planet.

- THANK YOU FROM ALL OF US AT XERCES!



Bumble Bee Watch is the community science platform that we use to collect observations of bumble bees. Individuals can take photos of bumble bees they observe, upload them via the web site or phone app, and help build knowledge of where species occur and how they are faring. These records not only help us to track populations, including rare and endangered species, but also serve as a treasure trove of information to help improve plant recommendations for habitat projects and inform advocacy efforts. Learn more at **bumblebeewatch.org**.

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(Photo: Xerces Society / Sarah Foltz Jordan.)

Connect, learn, discover

Our website contains a wealth of information about our work and what you can do to help invertebrates. Updates are posted to our blog and webinars to our YouTube channel. You can also connect with us @xercessociety on Facebook, Instagram, and Twitter!

xerces.org

Please visit **xerces.org/donate** or mail donations to:

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(855) 232-6639, option 2 membership@xerces.org



Nature-Based Climate Solutions

As Xerces turns 50 years old, we are taking stock of what we have accomplished, but more importantly we are assessing what we still need to achieve moving forward. If we hope to have a sustainable future for our children and grandchildren, we need to address the loss of biodiversity and the increased potential for major impacts from our climate crisis. What many people do not realize is that climate change and biodiversity loss are tied together—we cannot solve either without working on both. That is why Xerces Society staff focus on the many issues impacting invertebrates—habitat loss, pesticide use, disease spread to wild species, artificial lights affecting nocturnal insects, and so much more—and couples these with habitat conservation, restoration, and management that provides for climate mitigation, adaptation, and resilience.

At Xerces, nature-based solutions to climate change are at the center of our efforts. The goal is to protect and better manage habitat that remains in forests, rangelands, and natural areas and to create and restore habitat in degraded systems such as towns and cities, roadsides, and farms. Carefully managing and expanding habitat combats climate change by capturing CO_2 from the air and locking it up in plants and soils. These systems also provide other important benefits, such as cleaner air and water, economic benefits, and increased biodiversity. Studies show that cost-effective nature-based solutions could contribute 20% of the mitigation needed to keep global warming below 2° Celsius. These efforts are also vital to stem biodiversity loss and provide wildlife with the ability to adapt and move as climate changes.

Given the wide variety of ways in which climate change may affect insects, strategies that mitigate these negative impacts are needed to sustain insect communities. Climate-smart restoration is crucial for improving climate resiliency of these communities. Providing abundant insect-attractive resources will support large, stable, and diverse insect communities, which can better withstand bad years and the extreme weather events that are occurring more frequently. A diverse insect community is critical to ensuring diverse plant communities and maintaining the ecosystem services (such as carbon sequestration, water infiltration, and erosion control) that such plant communities provide.

Connecting these habitats is also important. Habitat corridors and "stepping stones" allow bees, butterflies, and other insects to move around the landscape and to migrate into new areas. Improving habitat connectivity will enable individuals to move among populations, increasing gene flow and helping to prevent populations from becoming too small.

The great thing about this work is everyone can—should—be involved. Farmers can restore habitat along field edges. Gardeners can plant drought-resistant native plants. Park and natural area managers can ensure that mowing or recreation does not negatively impact native habitat. And we can all lower the amount of pesticides we use. We also need to focus on cutting our individual carbon outputs by traveling less, eating less meat, and adjusting our thermostats, and pushing for governments to take concrete climate action. Together we can ensure a sustainable world.



Coreopsis and blanketflower offering habitat in Wichita Mountains Prairie, Oklahoma. (Photo: Justin Meissen/Flickr.)



Monarch on pale coneflower, an important nectar source for the butterfly in the Great Plains. (Photo: Jennifer Hopwood.)

OUTREACH & FDUCATION

Tips to Find Bee-Safe Plants for Your Garden

Are you creating or enhancing pollinator habitat in your yard, a public park, or other space? If so, take time to ensure you have bee-safe plants for your project. Be aware that nurseries—even those producing pollinator plants—may have treated their plants with pesticides, and toxic levels of insecticides and high levels of fungicides have repeatedly been detected. Growers are very sensitive to consumer intolerance for plant damage (and sometimes states mandate pesticide applications to prevent the spread of certain pests). Unfortunately, bees and butterflies may encounter risks from the commonplace use of pesticides during plant production, because these pesticides can leave residues on or in plants.

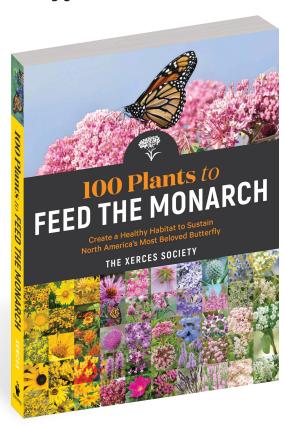
Creating a welcoming home for pollinators is reason enough to choose plants free from harmful pesticide residues. But how do you figure out if the plant you want is safe? How do you learn if the nurseries you patronize actively prevent pest problems instead of relying on pesticides as a routine fix?

Talk to your nursery! Let them know you want plants free of harmful pesticide contamination. Nurseries are more likely to make investments in pollinator-friendly production if their customers make it clear this is what they want. Our fact sheet, *Buying Bee-Safe Plants*, covers four ways to help you find plants that are safe for bees, and includes tips and questions to use at the nursery. In particular, we recommend that you:

- · Ask for USDA certified organic plants and seeds,
- · Avoid plants grown with neonicotinoids and similar insecticides,
- Shop at nurseries that practice pollinator-friendly pest management, and/or
- · Grow your own plants.

Download a free copy of Buying Bee-Safe Plants today at:

Your home garden can make all the difference. Find the resources you need, including our newly released book, 100 Plants to Feed the Monarch, at: xerces.org/gifts.





Your donor newsletter from the Xerces Society!

We are here to help you learn, explore, create & protect.



Join us for a webinar!

Coming up in the next few weeks:

Oct 20 — Protecting Monarchs and other Pollinators in Your Community

Oct 21 — Climate Change and Land Use Change Impacts on Pollinators

<u>Nov 11</u> — Western Butterflies: History, Threats, and Possible Futures

"I already loved the bees that visit my garden, but now I REALLY LOVE THEM! Thanks for the awesome presentation. Looking forward to the others." - Webinar participant

xerces.org/events



