Fall 2025

# The Chrysalis

**Emerging news from Monarchs Across Georgia**

*Our mission is to inspire caretakers of the natural environment through monarch and pollinator education*

MONARCHS ACROSS GEORGIA

*A committee of the*
**ENVIRONMENTAL EDUCATION ALLIANCE**

**Upcoming Events**

**Symbolic Monarch Migration**
Register by: Oct. 10
Postmark by: Oct. 17

Symbolic MONARCH MIGRATION

**NAAEE Research Symposium and Conference**
Symposium: Oct. 30
Conference: Nov. 3-6
*Workshops throughout October; all events online*

**Outdoor Learning Symposium**
Nov. 4
Fernbank Science Center, Atlanta
*Register by Sept. 30 for early-bird rates*

**EEA Annual Conference**
March 26-28, 2026
*Georgia Institute of Technology, Kendeda Building, Atlanta*

## State of the Butterflies in the U.S.: A Roadmap for Butterfly Conservation in the 21st Century

A new report released by the Xerces Society for Invertebrate Conservation provides a roadmap for recovering butterfly populations across the U.S.

The report is a response to a recent study published in Science, which found populations of butterflies across the U.S. are experiencing dramatic declines – an astonishing 22 percent decline in abundance from 2000 to 2020. That means that for every five butterflies seen 20 years ago, now there are only four.

The report is the first ever attempt to identify the core conservation actions needed for butterfly recovery across hundreds of species and diverse U.S. landscapes. Previous research has pinpointed pesticide use, habitat loss, and climate change as the major causes of butterfly declines.

Report recommendations include:

- Ensure that host plants for caterpillars and nectar plants for adults are available throughout the entire growing season
- Keep the spaces butterflies use pesticide-free

Access to high-quality, pesticide-free habitat can help butterflies and other pollinators be more resilient to climate change. Managing areas to increase habitat can also help declining butterfly populations.

The report provides a comprehensive overview of the research on butterfly declines, along with regional profiles that enable conservation planners to understand which species are experiencing the most severe declines and which are thriving in their respective areas. It also includes information on the ecological and social importance of butterflies, causes of decline, natural history, and what they need.

The report outlines specific actions for anyone – including wildlife agency staff, farmers, and gardeners – to help recover butterflies. It provides detailed solutions by landscape type, which include natural areas, working lands, and towns and cities. Additionally, there are recovery success stories, as well as a detailed appendix with actions to help butterflies.

Recovering butterfly populations requires concerted efforts in all landscapes and collaborations between organizations. Appendix A of the report features tables that highlight the interweaving of efforts and possible collaborative projects

The Xerces Society provides further resources on how to help butterflies and other pollinators, including the book "Gardening for Butterflies," which includes advice for conservation in all landscapes.

**Sources:**

https://xerces.org/sites/default/files/publications/24-002_State-of-the-Butterflies-US_web-UA.pdf
https://xerces.org/press/as-us-butterfly-populations-plummet-scientists-map-road-to-recovery

# Habitat Heros Community Science Program

### *Georgia joins national movement to improve urban and suburban pollinator habitat*

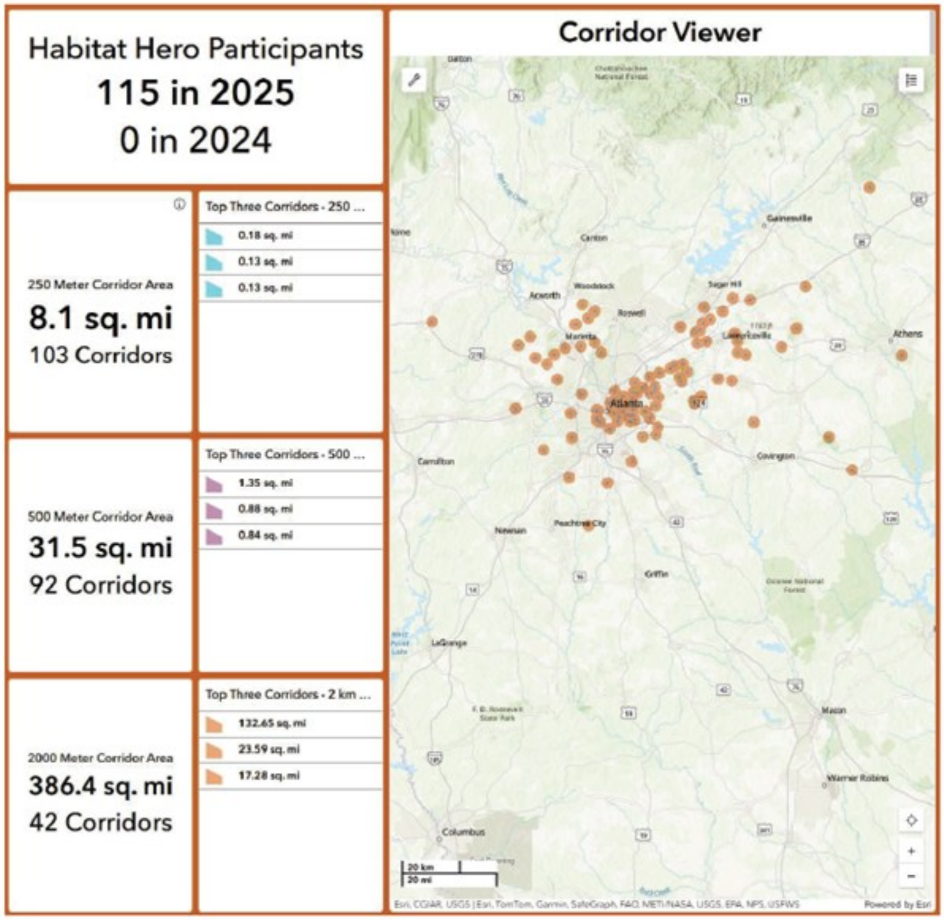
This summer, Monarchs Across Georgia (MAG) invited metro-Atlanta residents to become Habitat Heroes. A Habitat Hero is engaged in restoring and protecting native habitat through education, awareness, or direct action.

Habitat Hero is the flagship community science program of the John Ball Zoo in Grand Rapids, MI, created to improve urban and suburban pollinator habitat. Each year, they give away more than 2,000 native perennial trees, shrubs, wildflowers, and grasses at community events. See their story at Why We Need Habitat Heroes.

This year, they welcomed organizations from Delaware and Georgia as they piloted a national expansion of the program. MAG was excited to be part of this movement! We coordinated seven events in Gwinnett, DeKalb, Cobb, and Fulton counties in June and July, where people could choose up to five pollinator-friendly native plants and/or seed packets.

They were asked to complete a short online survey with the plant species received and, at minimum, their zip code to allow us to track our impact on the Habitat Hero Dashboard. The dashboard provides a visual map of the native plants and pollinator habitats across North America.

Native plants and seeds for this program in Georgia were provided through generous donations from Jill's Butterfly Garden and Monarchs Milkweed & More, LLC. We distributed 600 plants and 100 seed packets! See the image at top for a snapshot of the impact made, including a 132.65 square mile 2,000-meter corridor of pollinator habitat on the east side of the Atlanta metro area.





*Habitat Hero is the flagship community science program of the John Ball Zoo in Grand Rapids, MI. The dashboard at top displays the program's participants. Left is a program yard sign.*

# 2025 Pollinator Symposium Recap

Monarchs Across Georgia's (MAG) biennial Pollinator Symposium was held May 17 at The State Botanical Garden of Georgia. Heather Holm, prolific author and pollinator conservationist, gave the keynote, "Attracting Bees and Beneficial Insects with Native Plants."

In her talk, Holm covered the predator-prey relationships of beneficial insects and how they keep insect populations in check. The audience also learned about the life cycles, diversity, and nesting habits of native bees, and examples of native plants for different conditions.

Following the keynote, breakout sessions covered a variety of topics, including a session by Dr. Jaap de Roode about the research that influenced his book, *Doctors by Nature.* Other sessions covered the garden's Connect to Protect Program, moths, butterfly identification, fireflies, beneficial insects, monarch butterfly overwintering, habitat questions and answers, and a garden tour.

The event also featured a native plant sale and attendees went home with a variety of door prizes, books signed by Holm and de Roode, and full from the delicious lunch provided by Marti's at Midday.

MAG would like to extend a special thank you to the garden's education staff for their assistance and hospitality, and event sponsors – Jill's Butterfly Garden, Athens Seed Lawn & Garden, Keep Athens-Clarke County Beautiful, Farm 441, Outdoor Specialty, Piccadilly Farm, Cottage Garden Natives, Watkinsville First United Methodist Church Explorers Class, Bird & Brass, the Harris Family, and in memory of Lenita Struck, the Janssen Family.

# Pollinator Habitat Certification

Do you enjoy seeing caterpillars on their host plants, how about searching for hidden chrysalides, or maybe just watching butterflies and hummingbirds flit from flower to flower?

Does your schoolyard, workplace, or backyard have bushes, trees, and flowers that provide host plants, nectar, and protection for pollinators? Is there a source of water or puddling areas for thirsty butterflies? Are there any places for them to roost at night?

If you answered yes to many or most of these questions, consider registering your habitat with MAG's Pollinator Habitat Program. No garden is too big or too small!

Congratulations to MAG's latest certified gardens:

- Paradise Point, Sparta, GA
- Rock City Gardens, Lookout Mountain, GA
- Sarah Spalding, Marietta, GA
- Butterfly Garden at Park Springs, Stone Mountain, GA



## Call for Volunteers

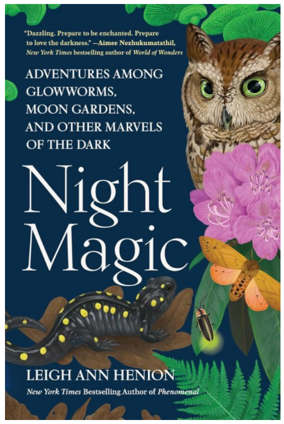
If you're interested in being a volunteer with the Monarchs Across Georgia (MAG) committee, please email mag@eealliance.org and let us know what volunteer opportunities interest you.

***Here are some of the many ways you could help:***

- Write newsletter articles
- Help facilitate MAG workshops
- Review grant applications
- Join our speakers bureau
- Update our web pages and/ or Facebook page
- Help at a MAG event (answer questions or assist with a children's craft activity)
- Become an active committee member and coordinate or work on a project, such as…
  - Grant administration
  - Chrysalis newsletter, e-blast/email list
  - Symbolic Monarch Migration
  - Mexico Book Project
  - Plant sales
  - Pollinator habitat certification
  - Volunteer coordination

*Recommended Resources*

# Night Magic: Adventures Among Glowworms, Moon Gardens, and other Marvels of the Dark




In *Night Magic*, *New York Times* bestselling nature writer Leigh Ann Henion calls on readers to celebrate the wonders of the night. She invites us to leave our well-lit homes, step outside, and embrace the dark as a profoundly beautiful part of the world. She reminds us that no matter where we live, we are surrounded by animals that rise with the moon, and nocturnal blooms that unfurl as daylight diminishes.

Leigh Ann explores her home region of Appalachia, where she attends a synchronous firefly event in Tennessee, a bat outing in Alabama, and a moth festival in Ohio. In North Carolina, she finds forests alight with bioluminescent mushrooms, neighborhood trees full of screech owls, and valleys teeming with migratory salamanders. She writes about the various people she encounters—naturalists, biologists, primitive-skills experts, and others who have dedicated their lives to cultivating relationships with darkness and the creatures who depend on it.

Leigh Ann introduces us to facts we never knew before—for example, we learn that it can take hours, not minutes, for human eyes to reach full night vision capacity. And that there are thousands of firefly species on earth, each with flash patterns as unique as fingerprints.

In an age of increasing artificial light, *Night Magic* focuses on the amazing biodiversity that still surrounds us after sunset. We do not need to stargaze into the distant cosmos or dive into the depths of oceans to find awe in the dark. *Night Magic* reminds us that there are dazzling wonders in our own backyards.

**Sources:**
https://www.goodreads.com/en/book/show/204594104-night-magic
https://www.hachettebookgroup.com/titles/leigh-ann-henion/night-magic/9781643753362/

# If You Like Butterflies

This enchanting picture book written by Lola M. Schaefer offers poetic storytelling and informative insights into the captivating journey of a butterfly and features beautiful illustrations by Gabi Swiatkowska showcasing each phase of its life cycle.

The narrative begins with the butterfly's graceful ascent, as it flits from blossom to blossom, sipping nectar while playing a vital role in pollination. The author then reminds us that the butterfly's path to adulthood is a remarkable transformation that begins with a minuscule egg nestled on a leaf.

As the story unfolds, readers witness the tender caterpillar emerge from the egg, growing and shedding its skin in a series of molts. We are then introduced to the chrysalis, a protective casing that facilitates a profound metamorphosis.

Ultimately, the tale culminates in the breathtaking moment when the butterfly breaks free, drying its delicate wings before taking its inaugural flight into the open sky, symbolizing the beauty of change and the wonder of nature.

The book also includes informative bonus material about creating your own butterfly garden.

**Source:**
https://www.hachettebookgroup.com/titles/lola-m-schaefer/if-you-like-butterflies/9780316337670/

## Join EEA's Virtual Book Club

GreenSleeves is EEA's virtual book club where members can explore environmental topics, spark meaningful conversations, and learn new ways to take action in our communities.

There is no commitment other than to enjoy reading and sharing books about nature. The book club meets via Zoom several times a year and is free for EEA members.

Sign up to receive announcements of upcoming books as well as the Zoom links.

# Symbolic Monarch Migration Is Celebrating 30 Years

***Time to get your symbolic butterflies ready for their trip south***

**Students in Mexico display their symbolic monarchs created by students in the U.S. and Canada.**

Join us for the 30th annual Symbolic Monarch Migration with youth from across North America. Families, homeschools, zoos and aquariums, nature centers, libraries, youth groups, and classrooms are welcome to participate.

In fall 2024, more than 20,000 youth in the U.S. and Canada created symbolic butterflies and sent them to Mexico for the winter. Students in schools near the Mexican monarch sanctuaries protected the butterflies and sent them north in spring 2025.

These symbolic butterflies build bridges of communication among students in Mexico, the U.S., and Canada. United by the monarch butterfly, children across North America learn meaningful lessons in conservation, cooperation, and ambassadorship. Read about the Mexican school visits.

Complete details on how to participate are in the 2025-26 leader packet. To cover the costs of this important educational project, participants must pay a registration fee for each Ambassador folder by October 10, 2025. Payments can be made with credit/debit cards by enrolling in the Symbolic Monarch Migration course on the Monarch Joint Venture Nectar Hub.

**Important Dates**

Register by: Oct. 10

Postmark by: Oct. 17

The fee covers supplies, shipping charges, postage, and, most importantly, school visits in Mexico to deliver the butterflies and provide conservation education. Your Ambassador packet must be postmarked no later than October 17, 2025.

The Symbolic Monarch Migration project is a partnership between Monarch Joint Venture and Monarchs Across Georgia (a committee of the nonprofit organization, the Environmental Education Alliance). Monarch Joint Venture hosts educational materials on its website.

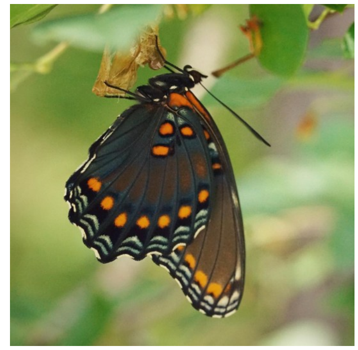
Monarchs Across Georgia administers the project, including coordinating the exchange of symbolic butterflies among 1,500+ classrooms in three countries, engaging a contract worker to provide lessons and deliver materials in Mexico, and raising funds for the project's continuation.

Please consider supporting this important program with a donation to the Symbolic Monarch Migration and/or the Mexico Book Project.

# Spotlights for Your Pollinator Garden

## Black Cherry (*Prunus serotina)*

*Prunus serotina*, commonly called black cherry, wild cherry, or wild rum cherry, is native to eastern North America, Mexico, and Central America. This plant thrives in average, medium, well-drained soils and can tolerate full sun to partial shade. However, it grows best in moist, fertile loams under full sun exposure. Young trees develop a long tap root, which makes transplanting difficult.



*(Left) Black cherry flower racemes and mature foliage. Photo by Julie Makin/ wildflower.org. (Right) Red-spotted purple butterfly. Photo by Emily Bell/ flawildflowers.org.*

The leaves have a shiny upper surface, and their blades are oblong with a long, pointed tip, a tapering base, and finely serrated margins. White flowers are held in drooping racemes after leaves have emerged.

The tree produces a dark red fruit that changes to black from August to October. It is an aromatic tree, with its crushed foliage and bark having a distinctive cherry-like odor and bitter taste. The bark, roots, and leaves contain toxic cyanogenic compounds, producing the noticeable bitter almond aroma of the inner bark. In autumn, the leaves of the black cherry tree turn yellow.

The valuable wood of the black cherry is used for making furniture, paneling, professional and scientific instruments, handles, and toys. Wild cherry syrup, which serves as a cough remedy, is derived from the bark, while jelly and wine are made from the fruit. Although the fruit is safe to eat and is used in drinks and cooking, the other parts of the plant contain amygdalin and can be harmful if ingested.

This tree was among the first from the New World to be introduced into English gardens, with records dating back to 1629 in Europe, where it has since become highly invasive and in northern South America.

**Sources:**
https://www.wildflower.org/plants/result.php?id_plant=PRSE2
https://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=286398

## Red-spotted Purple (*Limenitis arthemis astyanax)*

Contrary to its name, the red-spotted purple is neither red nor purple, but a vibrant shade of blue. It's common throughout Florida, ranging as far west as Texas and as far north as New Hampshire.

The red-spotted purple is a mimic of swallowtail butterflies and takes the form of the white admiral butterfly in northern regions of the U.S.

Its wingspan ranges from 2.5 to 4 inches. The upper side is blue to blue-green with iridescence on the outer part of the hindwing. The underside is dark brown. Forewings have two orange-red bars near the base of the leading edge. The hindwing has three red-orange spots near the base and a sub-marginal row of red-orange spots.

These butterflies are found in deciduous or mixed forests, moist uplands, valley bottoms, and coastal plains. Unique in its preference for fruit and tree sap over flowers, larval host trees include the black cherry, oaks, willows, and birch. Adults feed on  rotting fruit and tree sap, as well as on animal droppings and carrion.

The females lay spiked, round eggs patterned with small hexagons. Eggs are laid singly on the tips of tree leaves. In order to avoid predation, the larvae mimic bird droppings with their bumpy, greenish-brown bodies with streaky white markings. They also have brown horns and spines. After eating a leaf, the larvae use the leaf's central vein to construct perches called frass spars. These structures consist of the leaf vein, frass pellets (larva dung), chewed-up leaf bits, and silk to hold everything together. The larvae rest on these spars when not feeding, which makes them appear unappetizing and distracts predators with dangling bits of waste and leaf matter.

**Sources:**
https://www.flawildflowers.org/know-your-native-pollinators-red-spotted-purple/
https://www.butterfliesandmoths.org/species/Limenitis-arthemis

# Work With Your HOA

***Simple Steps to Build Support for Native Plants and Biodiversity***

*Adapted from Homegrown National Park (HNP)*

Growing native plants in one's garden is no-brainer! Native plant landscapes offer a safer, healthier, and more vibrant alternative. They support pollinators and birds, reduce water use, and thrive without harmful chemicals. However, many of us often need to navigate through homeowner association (HOA) guidelines and rules regarding our gardens.

HOAs often need to be reminded that traditional lawns might look tidy, but they're dead zones for wildlife. They also consume large amounts of water, rely on chemical fertilizers and herbicides, and emit pollutants from gas-powered mowers and blowers. These chemicals then run off into our waterways and surfaces where children and pets play, posing health risks.

Native plant landscapes offer a safer, healthier, and more vibrant alternative. They support pollinators and birds, reduce water use, and thrive without the use of harmful chemicals. Transitioning your yard to native plants can be impactful. Learn more about the positive impacts of ecological landscaping and success stories to inspire your HOA.

Homegrown National Park (HNP) also provides resources on getting started planting native, shrinking your lawn, removing invasive plants, making a home for wildlife, and designing a native landscape.

### Getting Started on the Transition: Your Action Plan

**Understand Your HOA's Guidelines.** Review your community's landscaping rules. Pay attention to guidelines about plant height, appearance standards, and approved plant lists.

**Create Intentional Designs.** Design gardens that look organized and deliberate. Incorporate clear borders and paths to visibly demonstrate planning and care. Add extra emphasis by using habitat signs to showcase that your garden is part of a movement.

**Educate and Inform.** Share simple information with your neighbors and HOA about the benefits of your local native plants, including lower water bills, fewer pesticides, and vibrant wildlife. Also consider serving on your HOA board to be an insider voice for biodiversity.

**Start Small and Expand.** Begin with one visible area. Demonstration projects help neighbors and board members visualize the potential of native landscaping.

**Collaborate With Your HOA.** Proactively suggest updates to landscaping guidelines. Provide examples of other communities successfully incorporating native plants.

**Grow Community Support.** Host garden tours, distribute easy-to-understand flyers, or organize neighborhood gatherings to encourage conversation and build enthusiasm.

For more detailed guidance and inspiration, download A Guide to Nativescaped Yards and HOA Sanctions by Leah Larabell.

## Responding to Citations

If your native garden receives a citation, take the following steps:

- Request details about the specific rules or ordinances violated
- Calmly demonstrate the intentional and ecological benefits of your garden
- Invite HOA officials to tour and see the organized nature of your planting
- Reach out to HNP for a formal letter of support
- Wild Ones also has a volunteer legal team. Need help from a Wild Lawyer? Contact *support@wildones.org*.

### Overcoming Common HOA Challenges

**Approved Plant Lists**. Suggest adding region-specific natives. Generate your list from the North American Keystone Finder.

**Propose Changes to Your HOA Plant Palette**. Work with your HOA to identify and remove invasive species from approved plant lists. Common offenders include English ivy, butterfly bush, privet, Callery pear, and Norway maple.

**Height and Appearance Rules**. Use tidy, defined planting beds and pathways to show clear maintenance and intentionality.

**Gardening Restrictions**. Propose appealing options such as raised beds, dedicated pollinator spaces, or community gardening plots.

*See "Simple Steps" on page 9*

# North America Faces Pollinator Crisis

***More than 22% of the 1,579 native pollinator species in North America are at an elevated risk of extinction***

Researchers assessed the extinction risk of 1,579 native vertebrate and insect pollinators in mainland North America north of Mexico. The study, "Elevated extinction risk in over one-fifth of native North American pollinators" was published in the Proceedings of the National Academy of Sciences in April 2025. This research indicates that more than 22 percent of native pollinators in North America are at an elevated risk of extinction. This groundbreaking assessment encompassed a diverse range of species, including bees, beetles, butterflies, moths, flower flies, bats, and hummingbirds.

To provide context and to help formulate local and regional conservation actions, the researchers examined state, provincial, and territorial distributions, threats, and habitat associations of each species at risk of extinction. This study is the largest, most taxonomically diverse assessment of mainland U.S. and Canadian pollinators to date.

### Findings

- One in five pollinators is currently facing threats: 22.6 percent of assessed species face an elevated extinction risk, highlighting an urgent need for conservation

- Bees are particularly vulnerable: 34.7 percent of native bee species assessed are at risk, with leafcutter and digger bees experiencing the highest levels of danger

- While all three species of pollinating bats are at risk, hummingbirds appear to be faring better, with all assessed species classified as having a low extinction risk

- Geographic analysis reveals that the American Southwest is a critical area: The area has a rich diversity of pollinators, and the risk is compounded by various climate-related stressors

The table at right shows the number of species assessed and the percentage of these species which are at risk of extinction.

| Species | # of Species Assessed | % of Assessed Species at Risk |
|---|---:|---:|
| Bats | 3 | 100.00% |
| Hummingbirds | 17 | 0.00% |
| Butterflies | 632 | 19.50% |
| Moths | 142 | 16.10% |
| Bees | 472 | 34.70% |
| Beetles | 18 | 12.50% |
| Flower Flies | 295 | 14.70% |
| *Total* | *1,579* | *22.60%* |

### Main Threats to Pollinators

Habitat loss, pesticide use and climate change were found to be the main threats to pollinators. These threats are impacting the species themselves and their specific food such as plants or invertebrates. Moreover, the loss of shelter and nesting sites is another threat, as well as the changes in the timing of the insect life cycle due to climate change.

The main threats to bees are agriculture, climate change, and development. The top threats to butterflies and moths are climate change, modifications to hydrological and fire regimes, and invasive species.

Threats to pollinators also differ by region:

- West and North: Climate change

- Rocky Mountains and Great Plains: Agriculture and climate change

- East: Pollution, housing, urban development, and agriculture

### How Can We Help Pollinators?

- Plant native flowering plants, even if pots are your only option

- Choose seeds that are not treated with pesticides; consult your local nursery for options

- Leave dead vegetation as is; it provides a home for insects throughout their lifecycle

- Use whatever space is available to make a native garden; even small spaces or container gardens can offer valuable resources for pollinators (and provide us with opportunities for both observation and enjoyment of nature)

**Sources:**
https://www.usatoday.com/story/news/nation/2025/03/28/north-america-pollinator-crisis-study/82649992007/
https://www.pnas.org/doi/full/10.1073/pnas.2418742122

# Monarch Butterfly Fund Awards Grants to MAG

For the sixth consecutive year, the Monarch Butterfly Fund (MBF) has awarded grant funds to Monarchs Across Georgia (MAG).

These funds have allowed MAG to expand its Mexico Book Project to include grade-level appropriate books in Spanish to complement the environmental lesson that our contract worker, Estela Romero, facilitates during her school visits for the Symbolic Monarch Migration (SMM) project.

This year, MAG purchased 45 copies of the book, *Jardines para polinizadores: una heramienta para la conservación* (UNAM 2020) and a poster, Colibríes de México y Norte América, to supplement Romero's upcoming lesson on pollinators. These items will remain in the schools, augmenting their teaching resources.

For the third year, MBF also has generously awarded grant monies to fund Romero's monitoring and reporting to Journey North on the status of the overwintering monarch sanctuaries of El Rosario and Sierra Chincua. Since 2018, when MAG began administering the SMM project, it has been fully responsible for funding Romero's efforts through donations and project participation fees. The MBF funds have been critical to the continuation of the important on-the-ground work that Romero provides.



*Book (above) and poster (right) purchased for MAG's Mexico Book Project.*

You can read her reports on Journey North's Monarch News Letters From The Field: Ms. Estela Romero and view her videos on their YouTube Channel.

For more information about projects funded by MBF, visit https://monarchconservation.org/our-work/projects.

# Simple Steps

*Continued from page 7*

**Watering Requirements**. Clearly demonstrate how native plants significantly reduce water consumption once established.

**Chemical Mandates**. Advocate gently for "no-spray" policies, emphasizing health and environmental benefits of chemical-free gardening.

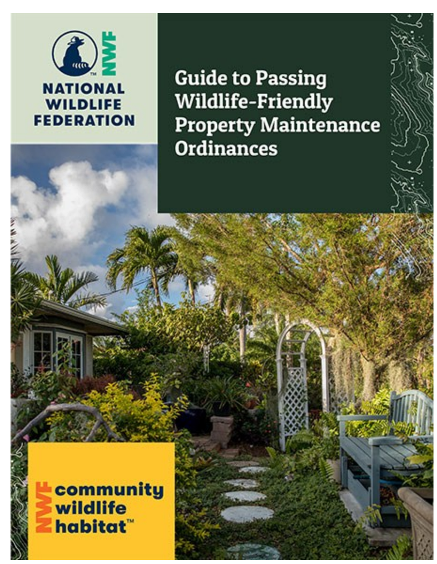
For more tips and a sample ordinance, check out this page from Wild Ones.

## More Resources

Check out the resources page at the Wild Ones website for sample native garden designs, guidelines for selecting native plants, and model regulations for municipalities to adopt for the use of native vegetation.

For detailed examples and guidance, download this Guide to Passing Wildlife-Friendly Property Ordinances from the National Wildlife Federation.

***Source:***
*https://homegrownnationalpark.org/planting-native-in-your-hoa-community/*



# Mexico Book Project Fundraiser Exceeds Goal

Monarchs Across Georgia (MAG) would like to thank all the donors who answered our plea for support of the Mexico Book Project this past May and June. We posted messages on Facebook and sent requests through our newsletter subscription list asking for help to purchase 40 copies of the $30 book, *El Mundo de las Abejas* by Cristini Banfi. ***Our goal was $1,200. We raised $2,240.***

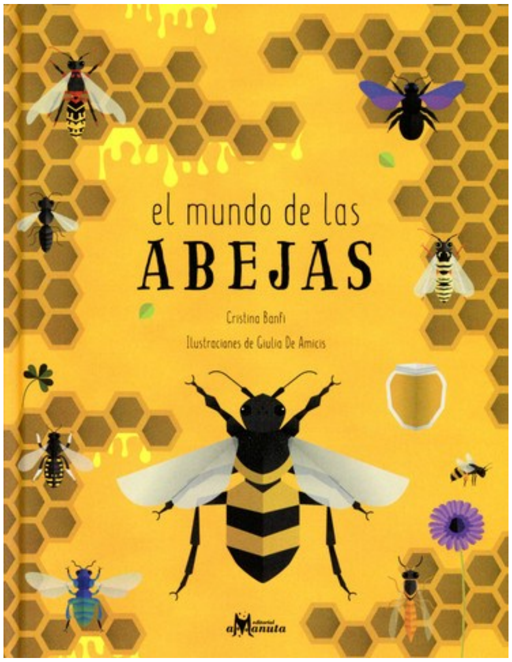
This is the story behind the request…

The Mexico Book Project was established by MAG in 2004 as a literacy effort for the schools that surround the Monarch Butterfly Biosphere Reserve in central Mexico. Funded largely by individual donations, MAG has been able to gift books each year to these schools, which in most cases have few reading materials.

These books help develop reading skills and increase both nature and science awareness and knowledge, which we believe will result in more environmentally-responsible citizens. For the past five years, the project has been specifically choosing books to supplement the lessons that Estela Romero is facilitating in these classrooms as our environmental educator for the Symbolic Monarch Migration project.

Romero visits about 40 schools each academic year during the months that the monarchs overwinter in Mexico (November – March). Last season, our lesson topic was soil; this season, it will be pollinators.

Although MAG has received small grants from the Monarch Butterfly Fund to supplement donations to purchase appropriate books, we consistently fall short of our goal.


*(Above and top) Students in Mexico with books donated by MAG. (Left) The most recent book to be used in lessons on pollinators.*

# Are Aphids on Milkweed Really a Bad Thing?

*From Wild Ones Journal, Summer 2005, Vol. 38, No.2*

*Photos by Barbara A. Schmitz unless noted*


Oleander aphids (*Aphis nerii*) on swamp milkweed (*Asclepias incarnata*).

*By Adam Varenhorst*

During this time of the season, many of us are closely monitoring milkweed in our yards and on our property for monarch caterpillars. However, it is not uncommon to notice large populations of small yellow insects covering the leaves and stems of the milkweed plants. In recent years, we've noticed large populations of oleander aphids (*Aphis nerii*), particularly on swamp milkweed (*Asclepias incarnata*) plants.

Oleander aphids are not a native species. They were first introduced into the U.S. on oleander, a shrub or small tree cultivated worldwide in temperate and subtropical areas. Oleander aphids are bright yellow with black legs, antennae and cornicles or tail pipes. They commonly infest oleander (*Nerium oleander*), common milkweed (*Asclepias syriaca*), swamp milkweed and butterfly weed (*Asclepias tuberosa*). Like other species of aphids, their populations can explode in a short amount of time. When large populations are present, the plants will appear shiny due to the excretion of honeydew, which can also promote the growth of sooty mold.

Unlike most other species of aphids, oleander aphids are sometimes left alone by predators. This is due to the oleander aphids sequestering the cardenolide toxins from the milkweed, which are toxic to predators. This, in turn, prevents predators from effectively feeding on their populations.

While these aphids are easy to spot because of their bright color, smaller numbers of them can be found by following ants as they move around the plant. Ants will tend these aphids and collect their honeydew as a food source.

So, what can be done to limit oleander aphids on milkweed? First and foremost, we do not recommend using foliar insecticides. The purpose



*See "Aphids" on page 12*

## Aphids

*Continued from page 11*

# So are aphids on milkweed really a problem?

## It depends on scale and context.

Aphids feed on plant sap. They do **not harm monarch eggs or caterpillars directly**, and monarchs will often still use lightly infested plants. In a diverse garden, a few aphids are often tolerable and may even reflect a functioning insect community.

But left unmanaged, large aphid populations can cause problems:

• Weaken young or potted milkweed.

• Promote sooty mold through excess honeydew, reducing photosynthesis.

• Attract ants that protect aphids and may disturb monarch eggs or larvae.

To keep things in balance:

• Avoid high-nitrogen fertilizers, which boost aphid reproduction.

• Water plants regularly to help them tolerate sap-feeding.

• Plant nectar-rich natives like yarrow (*Achillea millefolium*) and phacelia (*Phacelia spp.*) to attract hoverflies — whose larvae eat aphids. You'll also want to attract ladybugs, which just happen to also feed on nectar and pollen — thus, the same native plants you currently plant to attract butterflies, bees and other pollinators. (One ladybug can eat up to 5,000 aphids in its lifetime!)

• Monitor populations and remove aphids by hand if needed.

There is one other option if you don't like seeing aphids taking over your milkweed. Try planting flowers or scented herbs near your milkweed plants that naturally repel aphids or lure the pests away, such as marigolds, alliums, nasturtiums, dill, catnip and anise. (I've had limited success doing this, but I've found that I decrease the number of aphids taking over my swamp milkweed in years I plant marigolds, for example, versus years when I don't.)

Some aphids aren't a problem. But persistent, high numbers **c**an undermine monarch habitat if not addressed early.

*Sara Ressing and Barbara A. Schmitz contributed to this story.*

Photo: Anne Bernhard (Wild Ones Mountain Laurel (CT) Chapter)

of milkweed is to encourage monarchs to lay eggs and allow monarch caterpillars to develop. Spraying the plants would be detrimental to the caterpillars. Instead, water the plants to ensure that they are able to tolerate the aphid feeding. Also, it is important to not fertilize the milkweed plants. Aphids reproduce more quickly on plants that have high nitrogen concentrations.

If the population becomes too dense, use your fingers to squish the aphids. You might want to wear gloves when doing this as it will be a sticky mess. We don't recommend using high pressure water to remove the aphids as this could also remove any monarch caterpillars that are present on the plant.

*Reprinted from the South Dakota State University Extension. Adam Varenhorst is an associate professor and South Dakota State University Extension field crop entomologist. Amanda Bachmann, Philip Rozeboom and Patrick Wagner contributed to this story.*

Learn more about what to do about aphids at the Wild Ones West Cook (Illinois) website.