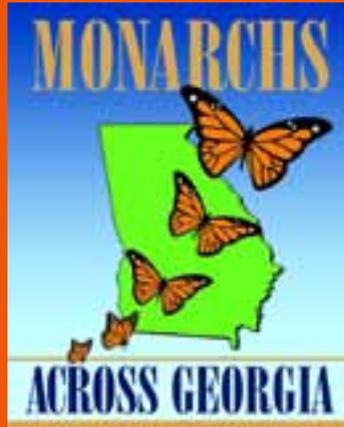


# The Chrysalis

Emerging News from Monarchs Across Georgia

A Committee of the Environmental Education Alliance of Georgia



## Upcoming Events

**Georgia State University**  
Perimeter College,  
**Native Plant Sale**  
September 2, 9, & 10  
Decatur, Ga

**Fernbank Science Center**  
**Plant Sale**  
September 17  
Atlanta, Ga

**Trees Atlanta Native Plant Sale**  
at The Carter Center  
September 17  
Atlanta, Ga

**Chattahoochee Nature Center**  
**Fall Native Plant Sale**  
September 22-24  
Roswell, Ga

**Georgia Native Plant Society**  
**Plant Sale**  
September 24  
Stone Mountain Park

**Deadline to Submit Entries for**  
**the Symbolic Migration**  
October 14

**Outdoor Learning Symposium**  
October 14  
Southwest Atlanta Christian  
Academy, Atlanta

**Dunwoody Nature Center**  
**"The Incredible Journey of the**  
**Butterflies" film screening**  
October 21

## Monarchs Across Georgia Partners with Monarch Joint Venture



The **Monarch Joint Venture** (MJV) is a partnership of federal and state agencies, non-governmental organizations, and academic programs that are working together to support and coordinate efforts to protect the monarch migration across the lower 48 United States. Monarchs Across Georgia (MAG) will join the ranks alongside U. S. Forest Service, U.S. Fish and Wildlife, U.S. Geological Survey, Bureau of Land Management, National Park Service, Natural Resources Conservation Service, Journey North, Monarch Watch, Project Monarch Health, and **other experts** in the fields of monarch conservation and education and are working to make colossal progress toward our ultimate goal of monarch conservation in the U.S.

The MJV is committed to a science-based approach to monarch conservation work, guided by the **North American Monarch Conservation Plan (2008)**. The monarch migration was listed by the International Union for Conservation of Nature as an endangered phenomenon in 1983. In 2010, the World Wildlife Fund included monarchs on its list of the "Top 10 to Watch" in 2010: species that are thought to be in need of close monitoring and protection.

Recognizing that North American monarch (*Danaus plexippus*) conservation is a responsibility of Mexico, Canada and the United States, as identified in the North American Monarch Conservation Plan, the MJV's mission is to work throughout the U.S. to conserve and protect monarch populations and their migratory phenomena by implementing science-based habitat conservation and restoration measures in collaboration with multiple stakeholders. This goal will be achieved through a combination of habitat conservation, enhancement and restoration, education, and research and monitoring.

The vision of the MJV is abundant monarch populations that will exist for future generations to enjoy. More broadly, we believe in promoting monarchs as a flagship species whose conservation will sustain habitats for pollinators and other plants and animals.

**The Monarch Conservation Implementation Plan** guides MJV conservation actions within and beyond the partnership. Each year, program funds are set aside to help our partners move these actions forward. To see a list of previously supported projects, see our page on **MJV Funded Projects**. With your support through this campaign, the MJV will dedicate all of the funds raised to directly benefit monarch conservation through strategic projects throughout the nation. From educational gardens to prairies that span hundreds of acres, monarchs need our help as we restore habitat, improve our understanding of the best ways to protect this charismatic butterfly, and increase people's awareness of how they can help. **Start serving monarchs today with a gift to our cause.**



## Looking Beyond the Facts

By Trecia Neal,  
Fernbank Science Center

On April 4, 2016, a paper was published in the *Journal Oikos* by Hidetoshi Inamine, Stephen Ellner, James Springer and Anurag Agrawal. Inamine, Ellner and Agrawal are all in the Department of Ecology and Evolutionary Biology at Cornell University and Springer is Vice President of the North American Butterfly Association (NABA), both very respected institutions. When the article was published online, the newspaper headlines were instantaneous, “Is milkweed really the key to saving monarchs?” As a passionate monarch scientist, lecturer and conservation specialist, you can imagine this caught my eye immediately. The gist of the paper was that the loss of milkweed due to herbicide resistant (GMO) crops was not the reason the overwintering population has dropped so precipitously since 1993, but rather it was “due to the fall migration and re-establishment on the wintering grounds as key issues.” (Inamine, et al 2016)

The paper wasn’t available to read online at the time, only the abstract, so I turned to my two trusted sources, Dr. Chip Taylor (head of Monarch Watch at the University of Kansas) and Dr. Karen Oberhauser (head of Monarch Larva Monitoring Project (MLMP) at the University of Minnesota), and began emailing them for details. Through a series of exchanges I began to understand what the paper was about.

Inamine et al. used data from several sources, including: NABA butterfly counts, the Ohio (OH) and Illinois (IL) butterfly counts, the Peninsula Point Monitoring Project, the Cape May Monarch Monitoring Project, the World Wildlife Fund (WWF) and Monarch Butterfly Biosphere Reserve (MBBR).

NABA conducts butterfly counts all over North America multiple times a year. The number of butterflies counted is divided by the number of people in the “count” – this is called the monarch per party hour. These “counts” are set and are at the same place and usually the same time every year

within a few days. We know that the number of monarchs per party hour is not declining (see the NABA data). The number of monarchs per party hour also does not predict the size of the over-wintering population in Mexico, according to Dr. Oberhauser. The MLMP data is very predictive of the overwintering population size, as is the monarch tagging data. However, we do know the over-wintering monarch population is declining. The WWF and MBBR counts have measured that since 1993.

The Peninsula Point Monitoring Project on Lake Michigan take place during the fall migration, and are spectacular as “the peninsula naturally collects monarch butterflies at its tip each fall where they rest before continuing south across Lake Michigan on their annual migration.” Cape May is another important monarch funnel on the Atlantic coast. These two counts are not indicative of the size of the population in total as the entire population does not migrate through these two points. The WWF and MBBR counts represent the over-wintering counts since 1993 through the present.

Inamine et al. also looked at the adoption of herbicide resistance (GMO) crops and the drop in the overwintering colonies in Mexico to see if the two were correlated. They found no correlation between annual increases in the adoption of herbicide-resistant crops (the hypothesized causal agent of milkweed declines) and annual decreases in the Mexico over-wintering population. For the summer population indices, where milkweed limitation should be most evident, monarch populations actually increased substantially over the decade that included 2/3 of the total increase in herbicide-resistant crop acreage (through the mid-2000’s) (Inamine, et al. 2016). After finally reading the whole paper for myself, I had quite a few questions, and happened to be at the University of Minnesota for a workshop along with two of my colleagues. There, we pinned down Dr. Karen Oberhauser for more details on her thoughts

on the problems with this paper. There are reasons that their data did not explain a correlation between an adoption in GMO crops and the drop in over-wintering colonies, but that is beyond the scope of this article.

A study published by Pleasants and Oberhauser (2012) showed that milkweed “declined in both agricultural fields and non-agricultural habitats from 1999 to 2010. There was a 31% decline for non-agricultural milkweeds and an 81% decline for agricultural milkweeds with a 58% overall decline for total milkweeds”. This loss of the agricultural milkweeds is devastating because agricultural milkweed monarchs produce 3.89 times more monarch eggs than non-agricultural milkweed. I think the math on this is fairly simple. We know from a study by Wassenaar and Hobson (1998) that half of the monarchs who overwinter in Mexico come from the Midwest, where 80% of the corn (88% GMO) and soybeans (94% GMO) in the United States are produced. It is fairly easy to figure out that if you take away the milkweed from the monarch’s main egg nursery, (the Midwest) you will have fewer monarchs migrating to Mexico.



Common milkweed (*Asclepius syriaca*) grows along a soybean field. Photo by Karin Hicks

We also know, from a paper that Dr. Orley Taylor wrote with Dr. Lincoln Brower and others, that the North American monarch over-wintering population had reached an all-time low in 2010. These authors attributed this to three factors: “...Degradation of the forest in the overwintering areas, the loss of breeding habitat in the United States due to the expansion of GM herbicide-resistant crops, with consequent loss of milkweed host plants, as well as continued land development; and severe weather.”

Per a personal conversation with Dr. Taylor when we were discussing the Inamine et al. paper, he said there was little

or no milkweed to be found in row crops (corn and soy) by 2007. We know that in 2007, President Bush signed the Energy Independence and Security Act into existence and over the next four years 77% of the converted landscapes were various forms of grasslands that were converted to plant GMO corn and later soy. From 2008 to 2012, grasslands were the source for 77% of all new croplands, with 5.7 million acres converted (Lark et al. 2015).

So how is it that Inamine et al. conclude that summer monarch populations are actually getting larger, and that milkweed loss is not driving the decline, a conclusion with which the majority of other monarch scientists disagree?

The problem is that the NABA, OH, IL, Peninsula Point, and Cape May counts are all measuring butterflies in good butterfly habitat. Places where you *should* see butterflies. If Inamine et al.’s hypothesis was correct, that something *other* than the loss of milkweed was contributing to the smaller winter population, then we should be seeing higher counts in the historical NABA count sites before farmers began using GMO crops. These count sites are in high quality habitat, but that isn’t what the data trend is showing.

I do realize that this is a complicated problem, and there are many causative factors, as Inamine et al. state, but I hope that this article has been helpful in helping you understand the science so that we can preserve the monarch, which is always our end goal.

I urge everyone to read the original Inamine et al. paper for themselves, along with the Ries, Oberhauser, and Brower et al. papers. This is extremely important

research that will affect policy at the local, state, and federal levels. If you are involved at all in monarch education or care-taking, it is important that you are well informed and up to date with monarch conservation issues.

It is also important to emphasize the value and importance of Citizen Science in research for ongoing scientific inquiry. If you are involved with students or children, please introduce them to the many monarch Citizen Science projects.

## In Search of the BALTIMORE CHECKERSPOT



Article by Meredith Mays

Photos by Jim Alison

When talking about butterflies in Georgia, there are certain species with whom many are familiar. Georgia's state butterfly, the Eastern Tiger Swallowtail, is one such species. It flies throughout the state during warm weather, with sightings reported as early as February and often into November. Another familiar species is the Monarch, and organizations such as Monarchs Across Georgia play a key role in educating the public about this iconic butterfly. What is less commonly known is that over one hundred and sixty (160) different butterfly species live in Georgia, some of which can only be seen in certain parts of the state and during certain times of year. One such less commonly known species is the Baltimore Checkerspot, or, for Latin buffs, the *Euphydryas phaeton*.

The Baltimore Checkerspot is the official insect of Maryland. It is a medium sized butterfly; when its wings are open, the distance from wingtip to wingtip is just over 2 inches. It is mainly black, with white and orange markings. If reviewing maps in butterfly field guides, you might conclude the Baltimore Checkerspot can be seen from Southern Canada to the North Georgia mountains. However, there is an



established Baltimore Checkerspot colony in Cobb County, Georgia and Susan Meyers, Monarchs Across Georgia Pollinator Habitat Restoration Grant Administrator and Treasurer, North American Butterfly Association – Georgia chapter, coordinated a butterfly field trip on May 15, 2016 during which participants were able to see this rare butterfly.

With Henning von Schmeling, Director of Operations, Chattahoochee Nature Center, serving as the field trip

guide, participants met at the Chattahoochee National Recreation Area, Cobb County, on a sunny Sunday. There were plenty of Common Buckeyes and we also saw the following species: Cabbage White, Sleepy Orange, Eastern Tailed-Blue, Spring Azure, Painted Lady, Red-spotted purple, Carolina Satyr, Least Skipper, Fiery Skipper, and Zabulon Skipper. After walking approximately a mile, there it was – a Baltimore Checkerspot, enjoying the sun near the marsh. As the walk continued, we saw other species that love the wetlands – Red Admirals and numerous Question Marks. But only the one sighting of the Baltimore Checkerspot.

In Maryland, the state's Department of Natural Resources reports that the Baltimore Checkerspot has experienced significant decline in recent years and has been designated as an imperiled species. Whether you are in one of the few areas in Maryland that still has a population of the Baltimore Checkerspot, or in Georgia, you will need to look for this butterfly in Spring. Henning has recorded five (5) years of Baltimore Checkerspot sightings occurring May 9, May 14, May 18, May 21, and May 27. Our sighting on May 15, 2016 adds a sixth year. In addition to Henning's records, Jim Alison also has information from a May 1, 2011 sighting. Jim reported seeing many Baltimore Checkerspots near its host plant – Turtlehead (*Chelone glabra*). Jim also shared pictures of Baltimore checkerspot eggs from 2011 (below).



In Spring, adult Baltimore Checkerspot butterflies emerge from their chrysalids to mate, which is why Spring is the best time to look for this species. After mating, female butterflies lay hundreds of eggs on turtlehead. Eggs take approximately 20 days to develop before the smallest caterpillars emerge and begin eating turtlehead leaves. The caterpillars continue to feed on turtlehead as they grow larger. In fall, caterpillars stop developing and overwinter in leaf litter. The next Spring, the caterpillars become active and begin eating again, eventually reaching full size and forming a chrysalis. Approximately two weeks later, the adult butterflies emerge. These new adults are what you may be lucky enough to see some Georgia spring. ■

## Mexico storms led to deaths of millions of monarch butterflies

by Mark Stevenson, The Associated Press

Storms earlier this year blew down more than a hundred acres of forests where migrating monarch butterflies spend the winter in central Mexico, killing more than 7 percent of the monarchs.

Rain, cold and high winds from the storms caused the loss of 54 hectares of pine and fir trees in the forests west of Mexico City, more than four times the amount lost to illegal logging this year. It was the biggest storm-related loss since the winter of 2009-10, when unusually heavy rainstorms and mudslides caused the destruction of 106 hectares of trees. This year's storm also appears to have frozen or killed about 6.2 million butterflies, almost 7.4 percent of the estimated 84 million butterflies that wintered in Mexico, said Alejandro Del Mazo, the attorney general for environmental protection.

"Never had we observed such a combination of high winds, rain and freezing temperatures," monarch expert Lincoln Brower said of the storms, which struck March 8-9.

Two big storm losses within five years may suggest changes in the climatic conditions that have allowed the survival of patches of mountaintop forests. An additional 6.5 hectares of trees were lost to drought this year.

"This points up just how fragile these forests are, and how fragile the monarchs are, and it makes clear the importance of reforestation efforts," said Omar Vidal, director of the conservation group World Wildlife Fund Mexico, which carried out the forest survey along with experts from Mexico's National Autonomous University and the government.



The monarchs depend on finding relatively well-preserved forests, where millions of the orange-and-black butterflies hang in clumps from the boughs. The trees, and the clumping, help protect the butterflies from cold rains and steep drops in temperature. That is why illegal logging in the 13,551-hectare nucleus of the reserve is so damaging. Conservationists have tried to convince the largely impoverished farm and mountain communities which actually own most of the land that the forest is worth more to them in terms of tourism when left standing instead of being cut down. In April, Mexico's government announced it would create a special national police squad to patrol nature reserves and fight environmental crimes. While the force has not yet formally deployed, illegal logging in the monarch reserve dropped this year, from almost 20 hectares in 2015 to about 12 hectares. Unlike in past years, when most logging was done in the farming communities, about three-quarters of the tree-cutting this year occurred on public lands in the reserve's core area - precisely the kind of terrain that environmental police could most effectively protect.

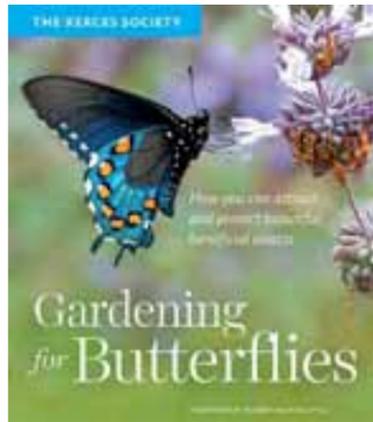
"This is why we insist that illegal logging in the reserve has to be eliminated, and that the destruction of (the butterfly's) milkweed habitat in the United States has to be stopped, so that the monarchs have the ability to better respond to these extreme climate events" like the March storms, Vidal said.

Brower criticized authorities' decision to quickly approve "salvage" logging of trees downed by the storms, suggesting it strengthened logging interests and disturbs the forest's chances for natural regrowth. He wrote that the "decision to authorize the very extensive salvage logging was possibly the worst management mistake that could have been made."

Environmentalist and author Homero Aridjis said, "The negative impacts of this logging on the forest cover will become all too apparent when the monarchs begin arriving (usually in November) just as the 'salvaging' comes to an end. The Mexican government should be taking measures to mitigate the probable effects of climate change on the reserve, instead of turning a blind eye to illegal logging, such as the virtual clear-cutting of the forest on government-owned land.

The damage comes after a rebound for the monarch. The area covered by the butterflies this winter was more than 3 1/2 times that of a year earlier. They clump so densely in the pine and fir forests that they are counted by the area they cover rather than by individual insects. The number of monarchs making the 5,500-kilometre migration from the United States and Canada had been declining steadily before recovering in 2014. This winter was even better. In December, the butterflies covered about 4 hectares, compared to 1.13 hectares in 2014 and a record low of 0.67 hectares in 2013. That is still well below the 18 hectares they covered 20 years ago.

## Recommended Resources

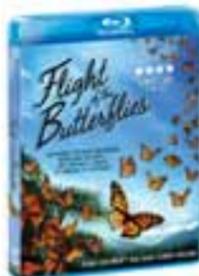


### Gardening for Butterflies

By The Xerces Society,  
published by Timber Press

Protect and nurture the best-loved of garden guests: butterflies, nature's kaleidoscopes with wings. The Xerces Society introduces you to a variety of butterflies who need our help, and provides suggestions for native plants to attract them, habitat designs to help them thrive, and garden practices to accommodate all their stages of life. Join the effort to conserve butterflies and moths, and learn proven strategies for welcoming these extraordinary visitors.

This book can be purchased in the [Xerces Society's online store](#).



**IMAX:**  
**Flight of the Butterflies**  
(4K UHD/3-D BluRay)

is now available for purchase  
and on Netflix!

## Pollinator Habitat Certification

Do you enjoy watching and studying caterpillars on their host plants; searching for chrysalides hidden from predators; observing butterflies and hummingbirds flitting from flower to flower? Does your schoolyard, workplace or backyard have bushes, trees and flowers that provide host plants, nectar and protection for butterflies, bees, hummingbirds and other pollinators? Is there a source of water/puddling areas for thirsty butterflies? Are there places for them to roost at night? If so, you might want to look into registering your backyard/schoolyard/workplace habitat with Monarchs Across Georgia's Pollinator Habitat Program. For more details and to download the form visit [www.eealliance.org/mag](http://www.eealliance.org/mag). No garden is too big or too small!

Congratulations to the latest gardens to be certified:

White County PSWRC, Cleveland  
Eastside Elementary School, Dalton  
Hawk Hollow (Wylde Center), Atlanta  
Satsuki Garden Club, Covington  
Lou and Chris Faisst, Peachtree City  
Connie & David Waller, Covington  
Oakhurst Garden (Wylde Center), Decatur  
W. R. Coile Middle School, Athens  
Kandy Duke, Eulonia  
Timber Ridge Elementary, Marietta  
Z's Paradise, West Palm Beach, FL  
Oconee County Middle School, Watkinsville  
Autrey Mill Nature Preserve & Heritage Center, Johns Creek  
The Ford Plantation, Richmond Hill  
Gwinnett County Master Gardeners Association, Loganville  
The Jimmy & Rosalynn Carter Pollinator Garden, Atlanta  
Morgan County Elementary and Primary Schools, Madison  
LaFayette Middle School, LaFayette  
Bettye Bogue Jones, Griffin  
Mossy Creek Elementary, Cleveland  
Chalker Butterfly Garden, Kennesaw  
Blue Heron Nature Preserve and Sandy Springs Mission, Atlanta  
Jane Wentz, Lilburn  
Springbrook Park, Decatur  
Gaskins Forest Education Center, Alapaha

## Mexico Book Project 2017

Do you have an occasion (birthday, holiday office party, etc.) for which you are stumped as to what gift you might give? Perhaps this person already has "a lot of stuff" or you are just not sure what might be appropriate or appreciated. Please consider the Mexico Book Project as an option.

The Mexico Book Project was established in 2004 by Monarchs Across Georgia as a literacy effort for the schools that surround the Mexican overwintering sanctuaries. Initially, Georgia teachers traveled to the monarch region and hand-delivered books to the classrooms they visited. In recent years, the books have been selected and delivered by Journey North's Estela Romero to the same classrooms participating in the Symbolic Migration.

You can dedicate the book(s) in honor or in memory of someone and choose to have the certificate(s) e-mailed to you for framing and/or presentation. Your contribution can be made anonymously or we can post your name, city and state on our annual donor list. In either case, your donation is fully tax-deductible and verified with the receipt e-mailed upon submission. The [online Donation Form](#) allows you to contribute any amount and pay by credit card or check. For reference, the average cost of each book ranges from \$8.00 to \$10.00 US dollars.

The deadline for this year's project is **November 1, 2016**.

## Monarchs Across Georgia

Gift of a Book  
In Honor of

This certifies that a book has been donated to children living in the rural area surrounding the Monarch Butterfly Overwintering Sanctuaries of Mexico.



Environmental  
Education  
Alliance  
of Georgia



## SPOTLIGHTS... For Your Pollinator Garden

### Asters: Perennial Fall Bloomers

Hardy Asters are excellent ornamentals for the late summer and fall garden. They prefer a sunny location with well drained but moist soil. These long flowering perennials are excellent for cutting and very attractive to butterflies. In general asters are deer and rabbit resistant, disease resistant, and easy to grow. The following varieties should be readily available at your local Garden Center.



'English Countryside'  
New England Aster

English Countryside Aster was given UGA's highest rating of 5.0 in their trial gardens. Covered in lavender-blue blooms, tinged with pink, this perennial is a standout in the garden. Reaching up to 4', it may require staking. Another option is to pinch back the stem tips in late spring which will produce denser growth and stronger stems. If the weather cooperates, this aster can be deadheaded after the first bloom and produce a second bloom.



Aster 'Kickin Series'  
New England Aster

Introduced in 2012, the 'Kickin Series' Aster has proven to be an excellent perennial. It forms a sizable mound of finely textured green foliage and is completely smothered with semi-double daisy-like blooms in lavender, pink, or red, with a golden center. Blooms from late summer well into mid-fall and comes in a rainbow of colors. Due to its compact growth habit it can be used in containers and needs no pruning or pinching back.



Aster 'Woods Series'  
New York Aster

'Wood's Purple' is a compact aster that typically grows in a mounded clump. Small, semi-double, blue-violet to purple flowers (to 1/2" across) with yellow centers bloom in late summer to early fall. Their glossy dark green leaves have excellent disease resistance. This variety can be grown in sun to part shade with good results.

By Virginia Brewer



### Pearl Crescent (*Phyciodes tharos*)

The Pearl Crescent is one of the most common and widespread butterflies in the eastern United States using woodland edges, open fields, and roadsides as habitat. With a wingspan of just over one inch and usually skimming just a few feet above vegetation, these orange and black/brown butterflies are sometimes overlooked by the casual observer. They will nectar on a variety of flowers, pumping their wings slowly while sipping.

Their host plant is asters but not all species. They prefer New England Aster (*Symphotrichum novae-angliae*), White-Panicled Aster (*S. lanceolatum*), Calico Aster (*S. lateriflorum*), White Heath Aster (*S. ericoides*) and Rice Button Aster (*S. dumosum*) but seem to avoid New York Aster (*S. novi-belgii*), White Wood Aster (*Eurybia divaricata*) and Cornel-leaf Whitetop (*Doellingeria infirma*). Scientists propose that this preference may be due to the varying amounts of a chemical known as aromatic hydrocarbon germscrene D that is present in different aster species.

Females meticulously lay eggs in layered clusters of 20-200 (avg. mid-60s) on the underside of leaves, taking 20-30 minutes to deposit their yellow-green progeny. This will normally continue every other day for her lifespan of 10 days. Emerging in 4-10 days, the early instars are gregarious, remaining close together while feeding and resting. Boldly marked with chocolate brown, black and white and covered with bristly spines, older instars may venture out on their own.

From March to October, one generation follows another but with cooler temperatures and shortened daylight, the third instar caterpillars will find shelter in a curled leaf to overwinter. Their feeding will resume in the spring and the cycle repeats itself.



The ventral photo shows the pearlescent crescent from which their name is derived but the underside colors are more brownish than black.

*Continued from page 3*

Gathering data for scientists is very empowering for children, and it demonstrates how they can be a part of the scientific process. Additionally, it gets everyone outside which research shows is important for a healthy brain and body development (Louv, 2005, Straus, 2014).

We also need to push for greater funding to answer these, and other, critical questions. There are so many wonderful, yet confounding questions about monarchs and their annual migration. The need for Citizen Science data is a point all of us need to emphasize when we speak with others and as we plan our future projects.

Please read through the list of Citizen Science projects on this page and find one that is right for you and/or your group. Please always report your data even if it seems incomplete or conflicted. Wouldn't it be exciting if the next answer or breakthrough came from your data?

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## Citizen Science Projects

**Journey North** - Report your sightings of monarchs during the fall and spring migrations.

**Monarch Health** - Sample wild monarch butterflies to help track the spread of a protozoan parasite across North America.

**Monarch Monitoring Project** - A research and education program focusing on the fall migration along the Atlantic coast.

**Monarch Watch** - Tag wild monarchs to track their migration to Mexico.

**Monarch Larva Monitoring Project** - Track monarch eggs, larva, and milkweed throughout North America.

**Peninsula Point Monarch Monitoring Project** - Count milkweed and check for the presence of eggs and larva.

**Southwest Monarch Study**  
- Research the migration and breeding patterns of monarch butterflies in the southwestern United States.



## MAG receives Recognition from GAPP

Monarchs Across Georgia received a certificate recognizing their contributions to and partnership with [The Greater Atlanta Pollinator Partnership \(GAPP\)](#): A Model for Urban Pollinator Conservation. MAG was cited as making a significant positive impact on pollinators and the human communities in which they live through:

- Education efforts and the dissemination of information about pollinator conservation research, citizen science projects and pollinator habitat restoration at public events and our educator workshops,
- Pollinator Habitat Certification program with developed guidelines for pollinator-friendly habitat design and installation,
- Pollinator Habitat Grants with which over thirty-five (35) pollinator habitats have been created or enhanced in the state of Georgia, and
- Plant sales which feature Georgia native milkweeds and other pollinator-friendly host and nectar plants.

Our recognition was a result of GAPP, a program of the U. S. Forest Service's Southern Region, being the recipient of the 2015 Urban Communities in Conservation Award.

Every year, the Forest Service recognizes outstanding work by their personnel and conservation partners to conserve habitats and populations of birds, bats, butterflies, and dragonflies. [Read more about the Wings Across the Americas 2015 Conservation Awards.](#)

## The Fall Migration is Underway!



Don't forget to [report all monarch sightings](#) - adults, eggs, and larva - on the Journey North website!

At this time of year, monarchs change dramatically in physiology and in behavior. Declining day length is the central cue that triggers the monarch's migratory state.

Watch for signs of migratory monarchs:

- flying in directional flight
- clustering in overnight roosts
- nectaring intensely

## Got Aphids?

Try this recipe from  
**Taylor Creek  
Restoration Nurseries**  
in Brodhead, Wisconsin!

### INGREDIENTS:

- 1 oz Isopropyl Alcohol
- 1 oz Blue Dawn
- 1 oz White Vinegar
- 1 gallon Water

Blend thoroughly. Pour into a hand spray bottle. Spritz mixture onto aphids. This is designed to dry out and kill aphids. Avoid spraying directly onto caterpillars, or move the caterpillars onto plants that will not be treated. Directly spraying onto caterpillars and other beneficial insects may harm or kill them. This treatment is not known to have residual effects or be harmful to the environment.

*This treatment is approved by  
Monarch Watch*

