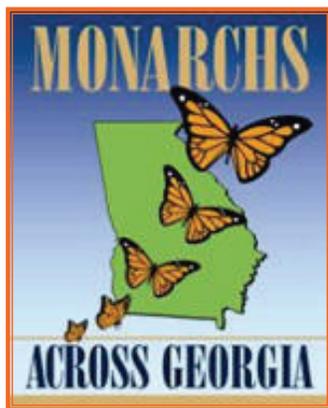


# The Chrysalis

Emerging News from Monarchs Across Georgia



A Committee of the Environmental Education Alliance of Georgia



## Monarchs Across Georgia's Policy on Butterfly Releases

The Code of Ethics is located on our website at this link:

<http://www.monarchsacrossga.org/MAGResources.php#MONARCHS>  
and is copied and pasted below.

### Upcoming Events

#### September 15, 2009

Deadline for MAG Service Award applications.

[www.monarchsacrossga.org/documents/award 2009.pdf](http://www.monarchsacrossga.org/documents/award%202009.pdf)

#### October 14, 2009

Deadline for the 2009 Symbolic Migration

[www.learner.org/jnorth/](http://www.learner.org/jnorth/)

#### October 15, 2009

Deadline for the 2010 Monarchs in Mexico Scholarship Application

[www.monarchsacrossga.org/trips.php](http://www.monarchsacrossga.org/trips.php)

#### February 6-13 & February 13-20

Monarchs in Mexico Trips

[www.monarchsacrossga.org/trips.pdf](http://www.monarchsacrossga.org/trips.pdf)

“Monarchs Across Georgia (MAG) seeks to promote an understanding and appreciation of the natural life cycle of the Monarch. The essence of the MAG program is to bring a wild organism (butterfly) into the classroom or home for closer observation and study. This should only be done in ways that are not harmful to the individual butterflies or their population. The best way to obtain

Monarch larvae is to plant native milkweeds in your garden or outdoor classroom. In Georgia, Monarchs generally migrate through the state around April - May and again in August - November. The butterflies will find the plants and lay eggs. It is then appropriate to move the caterpillars indoors to a study area/classroom. After the adult butterflies emerge, they should be released back into the environment from which they were removed.

MAG strongly discourages participants from purchasing **or releasing** any commercially reared butterflies. Commercial rearing can result in genetically inferior organisms, reduction of genetic diversity, introduction of disease, inbreeding, as well as the introduction of species and genetics not native to the area. MAG does not promote hand-pairing to rear successive generations of butterflies as this also encourages inbreeding and genetically inferior species. It may also result in the release of Monarchs at times when they are not normally found in Georgia.”



### Our Mission:

To inspire future caretakers of the natural environment by educating about monarch butterflies and other pollinators.

## SPOTLIGHT... Plants For Your Pollinator Garden

# Asters: A Fall Nectar Source

We tend to think of butterflies mostly in the spring and summer but they still need a nectar source in the fall. Late blooming flowers help to give them a nutritional boost they need at the end of the season.



In addition, September is a time when most of our perennials and annuals are past their peak, we've given up on gardening until next spring and then the Asters burst into bloom. Asters are colorful fall bloomers, providing a large number of flowers per plant therefore producing large amounts of butterfly nectar. There are over 600 true asters including species from China, Japan and Europe but the best known are the native asters from the United States.

Most cultivars grown in the United States are derived from the New England or New York Asters. They range in size from 12" to 6 feet and are hardy in zones 4 to 8. The tall cultivars, although very pretty, require extensive support and staking unless you have a very natural area where they have plenty of room to spread out. The flowers are daisy like ranging in colors from white, blue to

purple and pink. The majority of asters should be planted in sun to part sun with the exception of the wood asters which prefer shade to part shade. In Georgia, most asters start blooming early to mid September and persist for 4 to 6 weeks.

### Some cultivars worth considering for your fall garden:

'Alma Potschke'	3'-4' tall, deep pink blooms
'Professor Kippenburg'	9"-12" tall, lavender semi-double flowers
'Harrington's Pink'	3'-5' tall, large salmon pink flowers, blooms September – October
'Purple Dome'	18"-24" tall, mounding habit, hundreds of deep blue flowers
'Wood's Purple & Pink'	9"-12" tall, dwarf

Asters look great in a naturalized setting, they can be sprawling or growing up, tall or dwarf but always producing masses of flowers. They are a tough, easy to grow garden plant, valued for their persistent flowering.

**Lavender Mountain**  
**HARDWARE**  
*and garden*

## Connections from the 2009 Monarchs in Mexico Trip

by Naomi Thompson

I was able to attend the 2009 Monarchs in Mexico Trip and came back wanting to share the experience with everyone. I realized, you can use monarchs to teach about anything! As an educator with Stone Mountain Memorial Association (SMMA), I wanted to make a connection between Stone Mountain Park and the habitat in Mexico. Now, SMMA uses the monarch butterfly to help students apply their knowledge in other contexts and to different disciplines. We created lessons for Grades K-7 that relate a grade-level specific GPS to monarch life, habitat, or migration.

Find these lessons at [http://www.monarchsacrossga.org/MAG\\_LessonPlans\\_08.php](http://www.monarchsacrossga.org/MAG_LessonPlans_08.php).

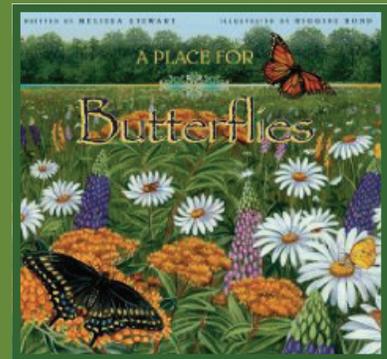
*Sample line from Kindergarten lesson on pattern recognition*  
Do you see a pattern?



## Recommended Reading

### A Place for Butterflies by Melissa Stewart

*A Place for Butterflies* clearly yet gently explains some of the ways human action and inaction can affect butterfly populations. The book focuses on eleven North American butterfly species and shows each one in its natural habitat. Simple text describing each butterfly's food sources and struggle to survive is perfect for young children reading on their own. Sidebars with additional information extend the usefulness of the book to older children and to young children reading with a teacher or parent. Sections at the beginning and end include information about butterfly life cycles, their place in the food chain, and simple things readers can do to help protect and preserve butterflies. The endpapers feature range maps for the entire butterfly species discussed in the book. More than just a book about butterflies, *A Place for Butterflies* opens readers' minds to a wide range of environmental issues. The book's concrete examples of cause and effect show young readers how the choices we make can have far-reaching consequences for butterflies and the many other creatures that share our world.



Links and lessons for this book can be found at:

<http://peachtree-online.com/pdfs/PlaceforButterflies.pdf>

## Monarch Butterflies with a Heavy Load

Martin Wikelski, biologist at the Max Planck Institute for Ornithology in Radolfzell and professor at the University of Konstanz, has, on a number of occasions, used transmitters to observe various animal species, such as birds, tortoises, dragonflies and bats, on their migratory paths. However, the migration of monarch butterflies, which cover thousands of kilometers every year on their journey between the Great Lakes in Canada and Mexico, has never before been studied using this technology. A team from National Geographic accompanied the scientists to document the tracking process for their film "The Science of Migration", which is planned for release in 2010.

Lawrence, a small town in Kansas, May 20, 2009: A group of scientists and a camera team stand side by side on the local airfield. Their concentration is palpable: a small six-legged visitor is expertly held between three fingers and carefully fitted with a small package with tweezers and adhesive. A minute radio transmitter on its abdomen, which weighs half as much as the animal itself, is to accompany the monarch butterfly on the next leg of its journey after the stopover. The scientists, Chip Taylor, director of the organization Monarch Watch, which is based at Kansas University, and Professor Martin Wikelski, Professor for Ornithology at the University of Konstanz and Director at the Max Planck Institute for Ornithology in Radolfzell, Germany, hope to succeed, for the first time, in getting the butterflies, which have been fitted with a transmitter, to fly and in following them in a small aircraft.



Considerable dexterity is required to fit the butterflies with a transmitter.  
Image: MPI for Ornithology, Radolfzell / Carrie Fudickar

The fluttery visitors are first fed a suitable amount of food to give them enough strength to carry the transmitters. After one butterfly had been released, Wikelski and Taylor followed its signals. "Just as we expected, it flew in a north-northeast direction," said Taylor after the flight, "And it covered a distance of 18 kilometers." The monarch butterfly was then located, first from the aircraft and then from the car, relieved of its extra load. The researchers are hoping for less windy conditions over the next few days to be able to release a larger number of tracked specimens. The collected data will then be entered into the "Movebank", a database of global animal movements initiated by Martin Wikelski, which can be consulted, for example, by national environmental protection agencies and by schools.

The monarch butterfly is the best known of the migratory butterfly species. Every March, millions of individuals fly in large swarms from the mountains of Mexico in the direction of north. By April, they have reached the Rio Grande on the American border, where the females lay the first of their 400 eggs. The caterpillars live off poisonous spurge, which make them unfit for consumption by birds, their natural predators. The conspicuous color of their wings acts as a warning sign for other animals. By early May, the butterflies have arrived in Texas where this generation's hazardous and exhausting journey ends with death. The journey, however, is continued by the next generation. This second generation then reaches the

latitude of the city of Washington. The grandchildren of the Mexican overwinterers hatch and lay their eggs in Pennsylvania, then in Canada at the Great Lakes. The imagines, the adult animals of this generation, achieve an incredible feat: With the help of strong upwinds, they cross Lake Erie and then negotiate the 3,600 kilometers southwards to reach Mexico again in late autumn.

In the past, it has not been possible to observe an individual butterfly in detail on its migratory journey. Thanks to the successful work of the biologists, however, this is no longer the case. "Now we can compare the migrations of whales, birds, bats and insects, and describe trends that will enable us to predict migratory phenomena, such as the migratory locust."

Despite his extensive experience in observing migrating animal species with the help of small transmitters, Martin Wikelski wanted to first test, on a small scale, whether the adhesive mixture would fix the metallic transmitter to the belly of the butterfly securely, as well as whether the butterfly would be able to fly with this considerable load and whether the signal can be received with directional antennae - hardly a suitable task to be carried out in a laboratory.



The butterfly house on Mainau Island, a well-known tourist attraction on Lake Constance, provided the best possible conditions for the tests. The unique flower and plant paradise was opened to the public by Count Lennart Bernadotte who wanted to provide access to an oasis of harmony and natural beauty. In keeping with this philosophy, a butterfly house was established there in 1996. Visitors can view over 50 species of magnificently colored butterflies in the tropical landscape of the butterfly house. The surrounding garden complex also provides a place for egg deposition and feeding for native butterfly species.

Here, the Mainau gardeners collected the monarch butterfly pupae for the test run. As soon as they hatched, Wikelski caught one rather dazed butterfly in the cold morning air. A spot of adhesive was carefully applied to its abdomen, the transmitter fitted on top, the drying process completed and the butterfly placed on a *Lantana camara* flower to recover and gather its strength. Exhausted by the procedure, the monarch did not initially attempt to lift off into the air. However, it eventually teetered off unsteadily, gradually becoming more confident as it became used to the unaccustomed extra weight. The National Geographic team filmed this exciting sequence on location.

Those lucky enough to have observed the flight of the millions of painted lady butterflies this past May, which arrive in Germany every spring from North Africa and the Mediterranean, cannot have failed to have been fascinated by the contrast between these delicate creatures and their ability to overcome enormous distances and altitudes. The migratory paths of these and other butterfly species that manage to cross the Alps every year can finally also be researched in detail.

# Monarchs in Mexico

## 2010 Scholarship Application

*Monarchs Across Georgia* is pleased to offer \$1,000.00 scholarships to educators (formal or informal) who will travel to Mexico as participants in one of our guided 2010 Monarchs in Mexico trips. The trip dates are February 6-13 or February 13-20, 2010. Two separate \$1,000.00 scholarships are available. For details, application and itinerary, visit [www.monarchsacrossga.org](http://www.monarchsacrossga.org) or contact Susan Meyers at [smmeyers@gmail.com](mailto:smmeyers@gmail.com).

Each \$1,000.00 scholarship is funded by *Monarchs Across Georgia* through our plant sale profits and **will be awarded after the trip and after your obligations to *Monarchs Across Georgia* have been met. Your obligations as described in your Plan of Action must be completed no later than December 31, 2010.**

### Eligibility:

Scholarship applicants must be currently employed in Georgia as a classroom teacher or as an informal educator. Education must be over 75% of your job responsibility. Written approval from your school district or employer for your full participation in the trip (including pre- and post-trip meetings) and the consequent obligations as described in your Plan of Action must accompany the application.

### Procedure:

Complete the 2010 Monarchs in Mexico trip application.

*(If you are selected as a recipient and accept the scholarship, you will be required to send the \$750.00 deposit before November 15, 2009 and pay the trip balance by December 31, 2009.)*

On a separate sheet of paper, write your Plan of Action including a timeline showing your sequence of events and deadlines. Your Plan must delineate how you can help *Monarchs Across Georgia*. How can you promote our workshops, Mexico trips, Pollinator Habitat Certification and/or Map *Asclepias* Project in your community, county, or on a state or national level? Can you enlist new partners or write grants to help us with our education, conservation or restoration projects? Can you write articles, lesson plans, or create graphics for our newsletter or website? How could you serve as a volunteer in another way? Be as specific and creative as possible.

Complete the information below and procure a letter of support from your school administrator or employer.

Make a copy of these items for your record and mail the originals to: Monarchs in Mexico 2010 Scholarships, c/o Susan Meyers, 1497 Candleberry Court, Lilburn, GA 30047.

**The deadline for receipt of this information is October 15, 2009.**

Applicants will be notified by October 30, 2009.

**Name:** \_\_\_\_\_ **Home Phone:** \_\_\_\_\_

**Home Address:** \_\_\_\_\_

**E-mail:** \_\_\_\_\_ **County:** \_\_\_\_\_

**List your previous travel experience:** \_\_\_\_\_

**Name of School and District/ Employer:** \_\_\_\_\_

**Your Current Position:** \_\_\_\_\_ **Are you requesting PLU credit?** \_\_\_\_\_

**Name and Title of School Administrator/ Employer supporting your scholarship application:**

\_\_\_\_\_ **Phone:** \_\_\_\_\_