



Nature | Science +Art

The Planet Project

SHOW: NOVEMBER 5-6, 2022

SET-UP: NOVEMBER 4

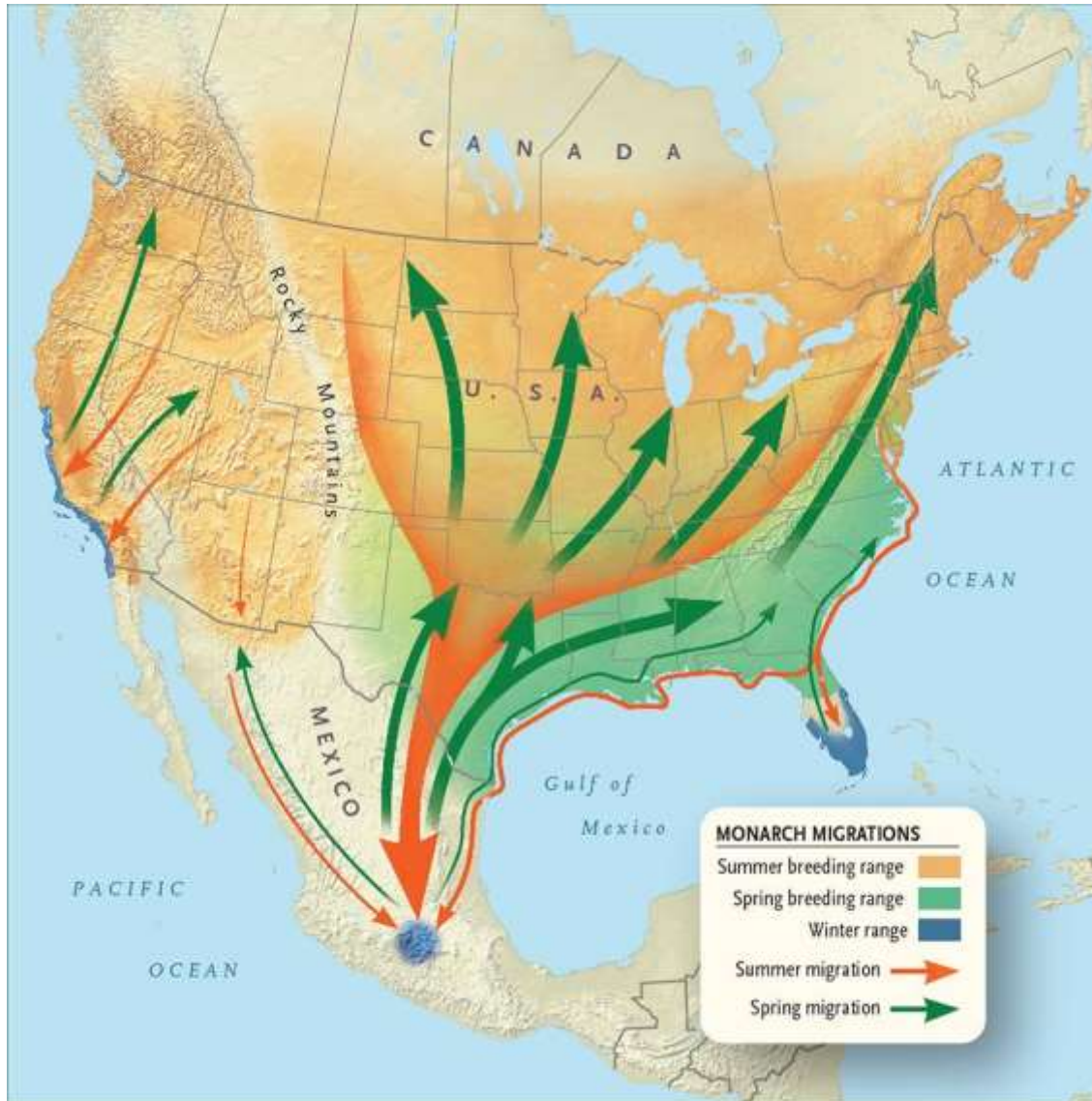
REGISTRATION DUE: SEPTEMBER 13

AWARD RECOGNITION CEREMONY: DECEMBER (TBC)

2022 Planet Project Theme: SOUTHERN HOSPITALITY for MONARCHS



MONARCH MIGRATION



Monarchs are the only butterflies to make a two-way migration like birds, which is an extraordinary phenomenon as it can take 3-5 generations to complete the migration cycle.

Monarchs that migrate east of Rocky Mountains from New England and Canada to the Transvolcanic Belt of central Mexico are considered eastern monarchs. While those that make their journey from the Northwest US and Southwest Canada to overwinter in California are considered western monarchs.

MONARCH HOST & NECTAR

Native Plants of Alabama



Butterfly Weed



Swamp Milkweed



Common Milkweed



Purple Milkweed



Showy Milkweed



Aquatic Milkweed



Polk Milkweed



Spider Milkweed



Prairie Milkweed



Whorled Milkweed



Narrowleaf Milkweed



Green Milkweed

HOST PLANTS: Milkweeds are vital for monarchs as this group of flowering plants are their only hosts, where adult females lay their eggs and their caterpillars feed as they bulk up and prepare for metamorphosis. Quite a few species of milkweeds are native to Alabama (circled in red). Milkweeds are poisonous to most invertebrates which protects monarchs throughout their life cycle from various predators. For instance, many bird species have adverse reactions to the toxins provided by the milkweed plant to monarchs and have learned to avoid black, yellow, and white striped caterpillars as well as orange and black butterflies.

NECTAR PLANTS: Along with the flowers of various milkweeds, giant ironweed, black-eyed susan, goldenrod, indian blanket and bee balm are among the many Alabama native plants that provide nectar for monarchs during their long journey to and from Mexico.

ROOSTING & OVERWINTERING



Overwintering monarchs at El Rosario Sanctuary, Michoacán, Mexico
Photo by by Ruth J. Katz



Overwintering monarchs at Ft. Morgan, Alabama
Photo by J. Neitzel

Oyamel fir trees (left) and white cedars native to the Transvolcanic Belt of central Mexico are the preferred overwintering trees for eastern monarchs. Although, some have been seen roosting and overwintering in pine trees in places like Fort Morgan and Fairhope in South Alabama (right). Monarchs are not cold tolerant and migrate south in the winter to roost in these conifers for warmth.

Monarch Butterflies in Art



Earth Day Anthropologie window display
Becky Elfes-Terjung 2014



The Rabble - collage
Deborah Shapiro 2010

Plant-Chair Sculpture



Inkuku chair
Ryan Frank



Succulent Chairs
source unknown

The Wild Plants Chair
w/ detail shot from above
Isabelle Desjeux 2016

DIY Monarch Butterflies and Plants



Coffee filter monarchs by Jackie Currie
Monarch Installation by Merle Axelrad

Crepe paper leaf garlands by Charlotte Saul
Paper bridal bouquet by Lia Griffith

Challenge | Materials & Construction

- **SCULPTURE CHALLENGE** - Upcycle an old chair into a lush monarch butterfly environment - include as many elements as desired: butterflies, caterpillars, chrysalis along with host and nectar plants and/or roosting tree foliage
- **FRAME/BASE** - any type of chair your class can attach crafted monarch and plant elements to. Preferably an adult sized chair. It is not meant to be sat on, rather it will become the sculpture itself.
Note: If the chair does not have a surface conducive for attaching items and you'd rather not use glue, the problem can be solved by adding chicken wire, garden mesh, burlap or another similar type substrate.
- **CONTENT MATERIALS** - paper bags, plastic bags, magazines, envelopes, coffee filters, tissue paper, plastic table cloths, fabric, bubble wrap, felt, sponges, cotton balls, push pins, clothes pins, pipe cleaners, yarn, plastic bottles, bottle caps, etc.
- **ATTACHMENT & ADHESIVES** - wire, string, yarn, rope, zip ties, twist ties, bobby pins, magnets, glue, tape, velcro, etc.

If you have questions, need advice or help with any snags contact the Education Coordinator at 205-601-6166 or findart1@findartbirmingham.com.

Project Inspiration & More Info

Erica Harrsch - Eros Thanatos

<https://www.erikaharrsch.com/erosthanatos.html>

Merle Axelrad - Butterfly Effect

<https://www.capradio.org/news/insight/2015/06/17/insight-061715c/>

Becky Elfes-Terjung - Earth Day 2014 Anthropologie window display

<https://www.beckyelfes-terjung.com/new-gallery/>

Isabelle Desjeux - The Wild Plants Chair

<https://isabellecreates.wordpress.com/2016/11/22/charity-the-wild-plants-chair/>

Clothes pin & coffee filter monarchs

<https://www.cbc.ca/parents/play/view/coffee-filter-monarch-butterflies>

Plastic bottle monarchs + branch installation

<https://ourfamilycode.com/plastic-bottle-butterflies-recycled-art/>

Butterfly stick puppet

<https://www.firefliesandmudpies.com/butterfly-stick-puppet/>

Crepe paper leaves garland

<https://www.charlottesaul.com/fun/2020/2/19/paper-craft-crepe-paper-leaf-garland>

DIY pine branches

<https://mydearirene.com/2014/12/24/make-your-own-faux-pine-branches-for-less/>

Making paper leaves video tutorial

https://youtu.be/eBL6R_aZmyg

Bibliography & Resources

Alabama Butterfly Atlas: Monarch

<https://alabama.butterflyatlas.usf.edu/species/details/47/monarch>

<https://alabama.butterflyatlas.usf.edu/host-and-nectar-plants>

Milkweed plants native to North America

<http://butterfly-lady.com/twelve-native-milkweeds/>

Monarch nectar plants for Alabama

<https://www.gardenia.net/guide/monarch-nectar-plants-for-alabama>

Monarch nectar plants: Southeast - pdf from NWF

https://xerces.org/sites/default/files/2018-05/16-047_01_XercesSoc_MonarchNectarPlants_Southeast_web-4page.pdf

Regional monarch-specific nectar plant guides for the continental US

<https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants/Monarch-Nectar-Guides>

Monarchs in Mississippi

<https://www.mdwfp.com/media/news/museum/monarch-rule/>

Monarchs butterfly journey infographic - Cincinnati Nature Center

<https://visual.ly/community/Infographics/animals/monarch-butterfly-journey>

National Geographic Animals | Photo Arc - Monarch Butterfly

<https://www.nationalgeographic.com/animals/invertebrates/facts/monarch-butterfly>

Life Cycle of the Monarch Butterfly

<https://curbarchive.journalism.wisc.edu/2015/life-cycle-of-the-monarch-butterfly/index.html>

Monarch life cycle graphic source - Concord Village Earthlab, Brooklyn, NY

<https://cvearthlab.com/2018/07/04/cv-has-monarch-caterpillars/>

Milkweed to Monarchs

A multi generational voyage

The monarch butterfly migrates each year to escape freezing weather at the northern winter, and rests for several months in the forested mountains of Mexico. Then, in the spring, they migrate back north to find milkweed on which to lay their eggs.



It takes 3-4 generations of monarchs to complete the cycle from their over-wintering site and back.

The butterflies who have over-wintered in Mexico head out in spring to find mates and lay eggs on the milkweed. The next 3 generations live for a couple months before the final "summer" 4th-generation heads back to Mexico, over winters and then heads out again.

The two black spots indicates that this is a male

Milkweed Monarch in summer

Migration

Monarch butterflies are not able to survive the cold winters of most of the United States. So they migrate south and over-winter in Mexico to escape the cold weather.

Monarchs spend a specific time at each location

Some monarchs fly to the Pacific Grove, CA

Some monarchs fly to Michoacán, Mexico

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Larvae are oval and typically 2-3" long, smooth on top, with both an underside. They are short, thick and mobile.

Monarch butterflies only lay their eggs on milkweed leaves, so that the young caterpillars have a food source as they grow.

1st STAGE Egg

2nd STAGE Larva (Caterpillar)

3rd STAGE Pupa (Chrysalis)

4th STAGE Adult (Butterfly)



Monarchs disappeared from the Midwest in 2004

Milkweed at CNC

Milkweed is the only food source for the Monarch caterpillar

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Milkweed grew abundantly across the midwest until . . .

The milkweed was a common native plant growing abundantly along roadsides and fields throughout the midwest, directly in the path of the monarch's migration route.

Over the past decade, the absence of the monarch population is staggering due to a devastating level of habitat loss affecting hundreds of species.

Monarch caterpillars need milkweed to survive but widespread use of pesticides, as well as development and common farming practices have contributed to the scarcity of milkweed along the monarch's migratory routes.

Extreme weather conditions are causing a disturbance in monarch migration with cold weather traps in Mexico and drought in the United States, which may affect long-term recovery efforts on the migration route.

What CNC is Doing

With nearly 50 years of habitat preservation expertise, Colonial Nature Center is leading the charge to draw attention about monarchs and other important pollinators. Through the Milkweed to Monarchs initiative, we'll offer educational and landscaping programs to increase the monarch's habitat. Over the last five years, we've planted 50 acres of native prairie fields to grass-land with native plants like milkweed, which is critical to butterfly survival, and have plans to create more milkweed habitat. We also facilitate citizen science programs and academic research on our lands. We hope to help improve and understand the sites they can stop to ensure survival of the beloved species.

What You Can Do

Plant milkweed - necessary for monarch caterpillars. Provide water points for adult monarch butterflies. Milkweed will support various organisms, including bees and birds feeding on their nectar.

Adult Monarch food sources

Adult monarchs can feed off a variety of nectar producing plants

Monarch

Monarch

Monarch

Monarch

Monarch

Monarch

Monarch

Monarch

