



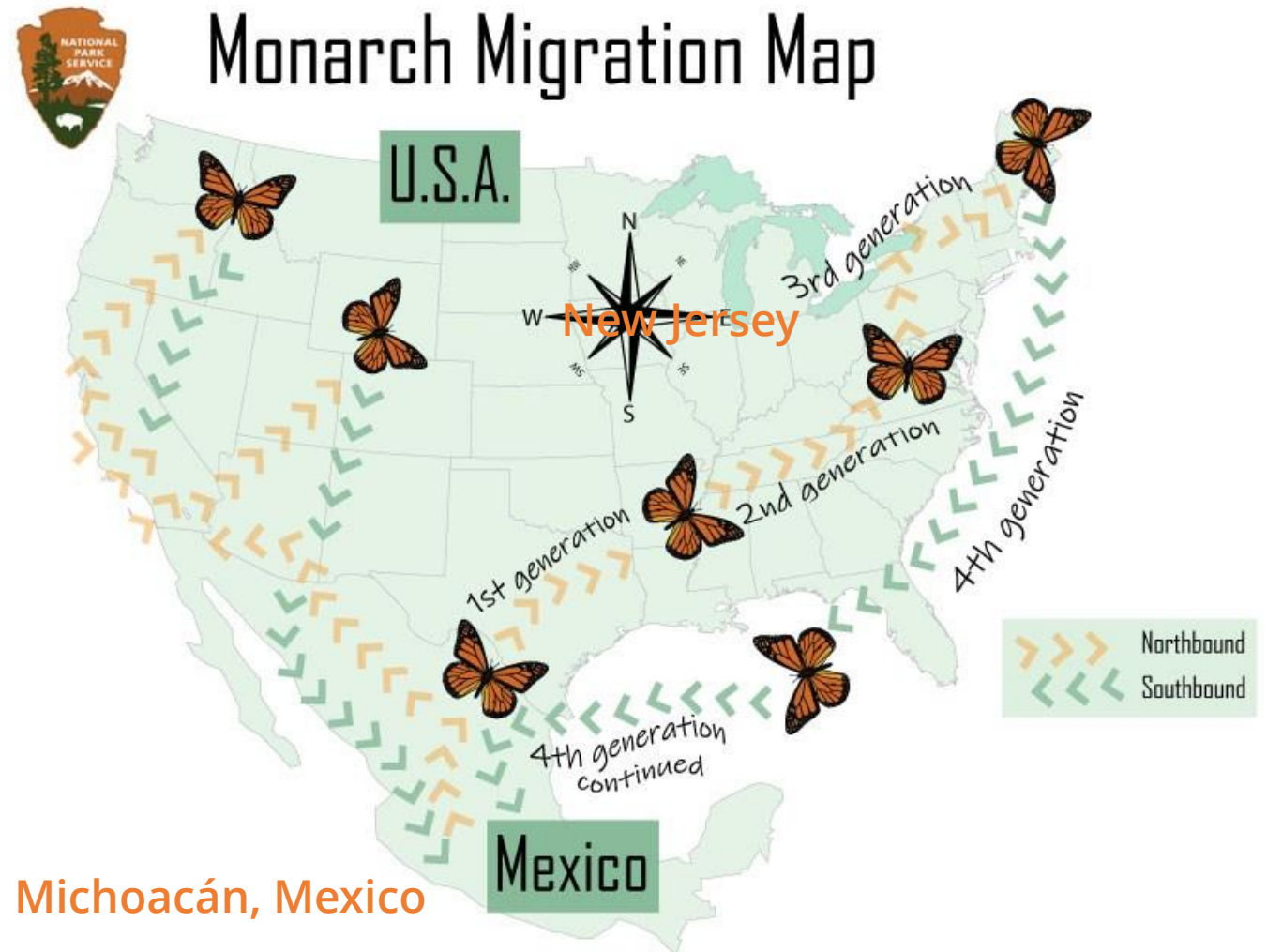
# Monarchs



**Most highly evolved  
migratory** pattern of any  
known species of their kind

Multi-generation migrations  
**A relay race**

Two **simultaneous**  
migrations, the eastern and  
western.



NPS graphic/ S. Sparhawk









VIAJE DE MIGRACIÓN de hasta 5,000 km

Acerca de la  
**MARIPOSA MONARCA**  
(*Danaus plexippus*)

EN PRIMAVERA Y VERANO, entre tres y cinco generaciones migran hacia hábitats septentrionales, y cada generación vive de dos a cinco semanas

UNA GENERACIÓN migra de Canadá a México, y llega a vivir hasta nueve meses

ALIMENTACIÓN  
Adultos: néctar de flores  
Orugas: hojas de asclepias

REPRODUCCIÓN  
Las hembras ponen sus huevos únicamente en asclepias

ENVERGADURA  
8.9 – 10.2 CM  
(3.5 – 4.0 pulgadas)

[www.namonarchs.org](http://www.namonarchs.org)

[Las imágenes no están a escala]

They travel between 1,200 and 2,800

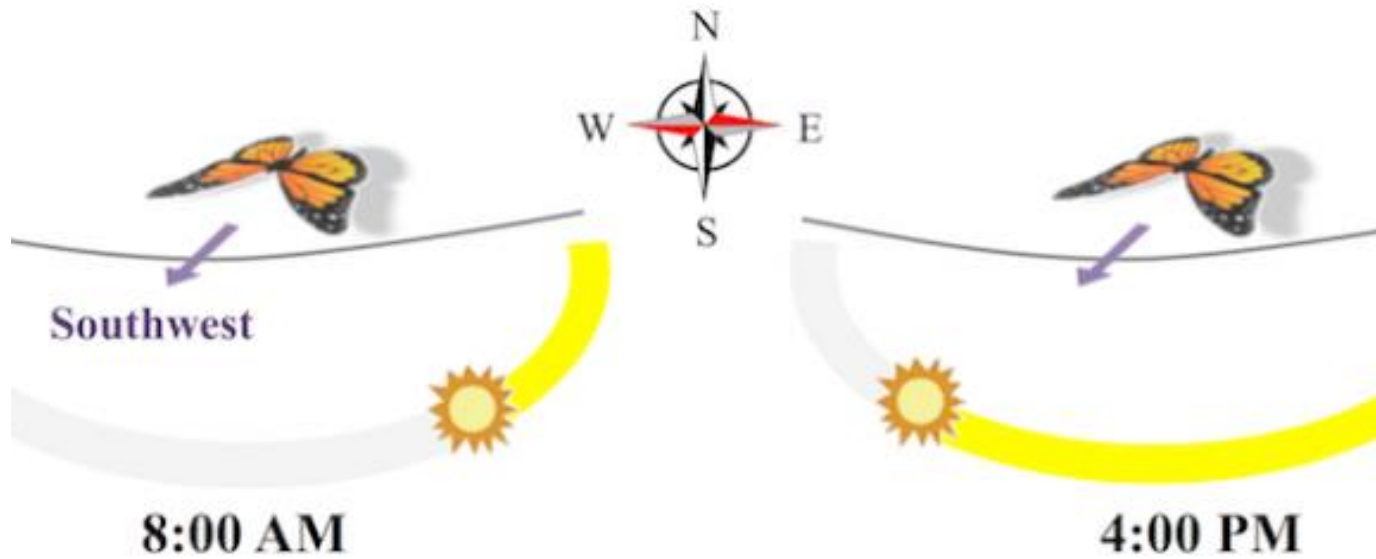


Each adult butterfly lives only about four to five weeks.



Supergeneration (Last) **can live** up to 9 months. They complete a 3,000 mile journey

# Compass



They use the sun to stay on course, but they also have a magnetic compass located in the antennas to help them navigate on cloudy days.

Earth's magnetic field



# Monarchs and

# Look-alikes

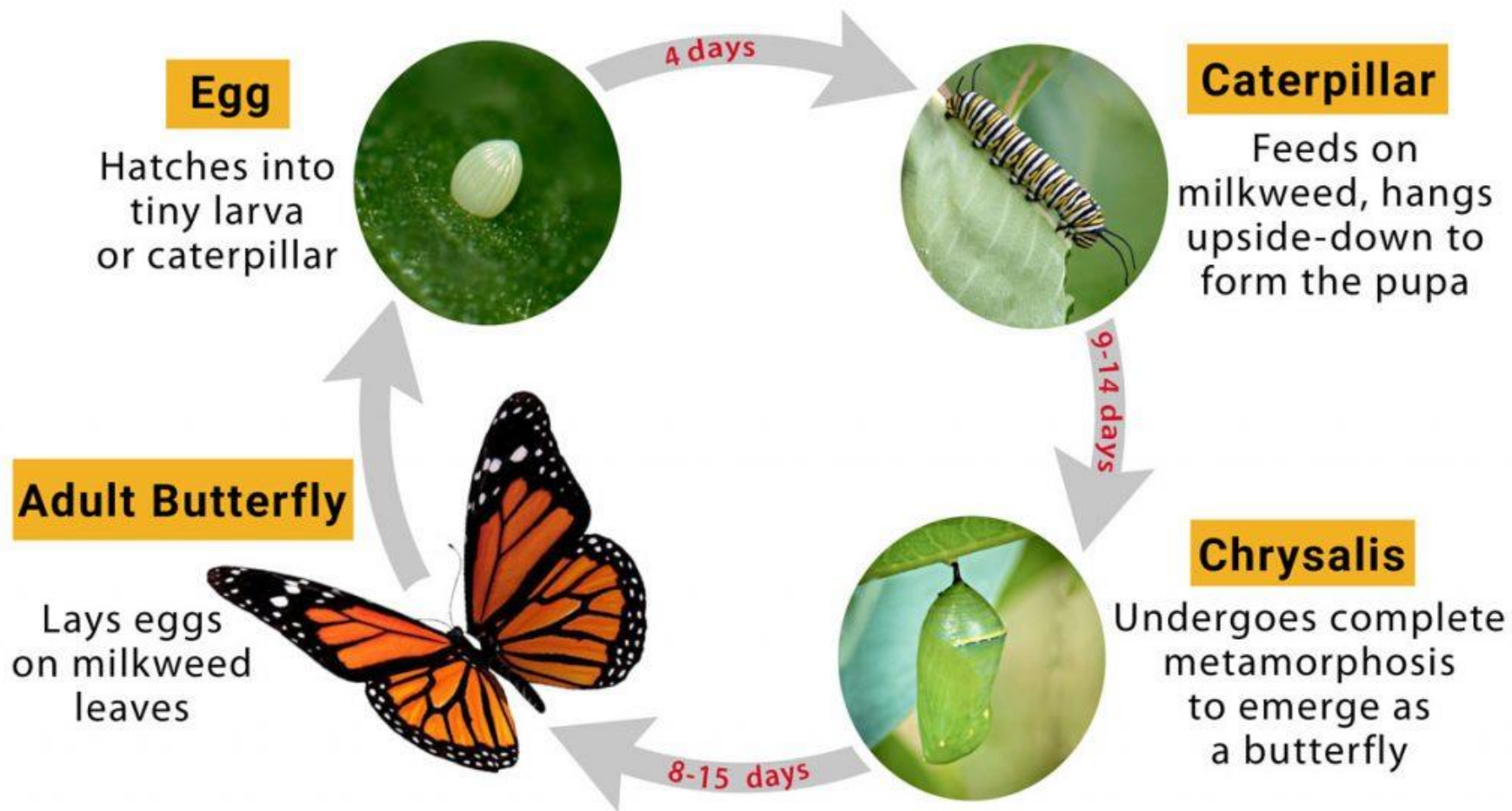


What field marks distinguish the monarch from these look-alike butterflies?

Create Venn Diagrams to compare and contrast.

  
JourneyNorth.org

# MONARCH BUTTERFLY LIFE CYCLE



<https://www.butterflyidentification.com/monarch.htm>









# Monarchs in NJ







# Why NJ?

- Habitat
- Diversity
- Forest
- Wetlands
- **Nectar**



# Endangered species



Monarch butterflies congregate on a tree in Sierra Chincua, Mexico.  
PHOTOGRAPH BY JOEL SARTORE, NATIONAL GEOGRAPHIC



Deforestation



Agriculture



Chemicals

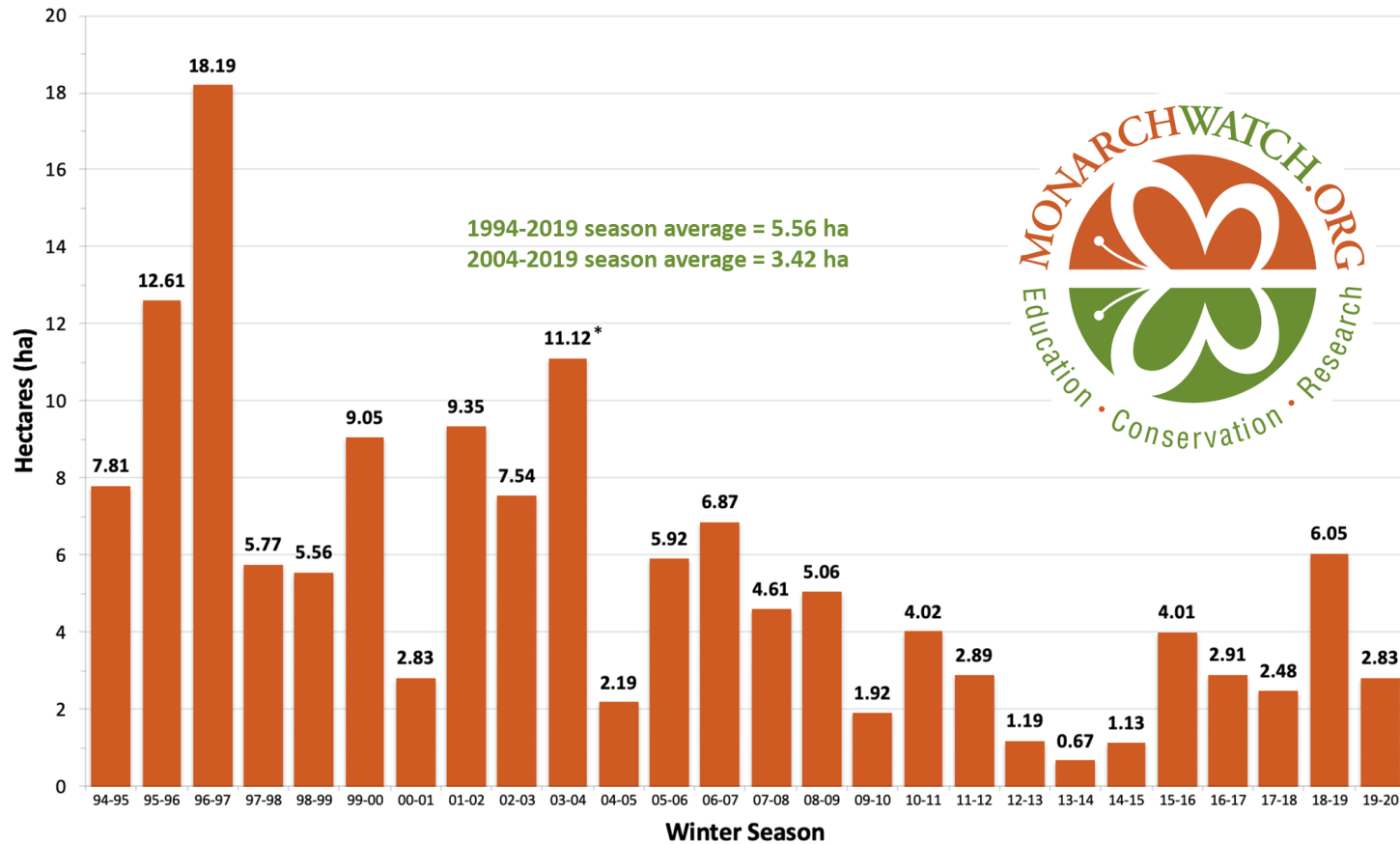
Herbicides

Insecticides



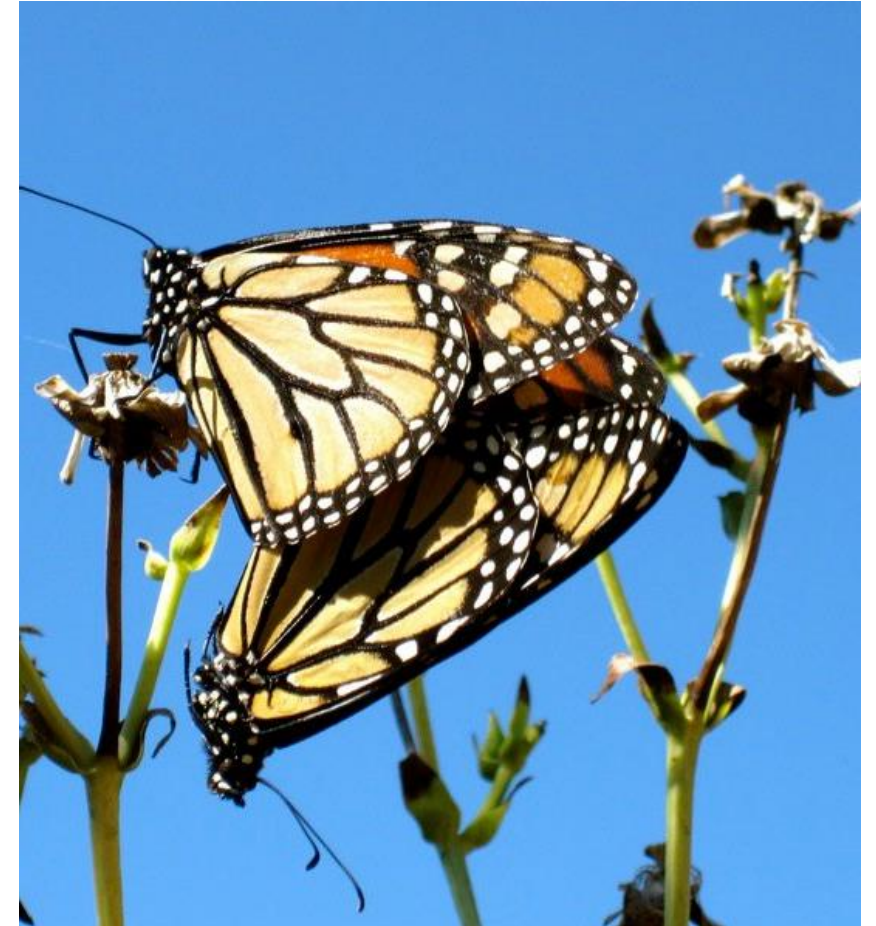


## Total Area Occupied by Monarch Colonies at Overwintering Sites in Mexico



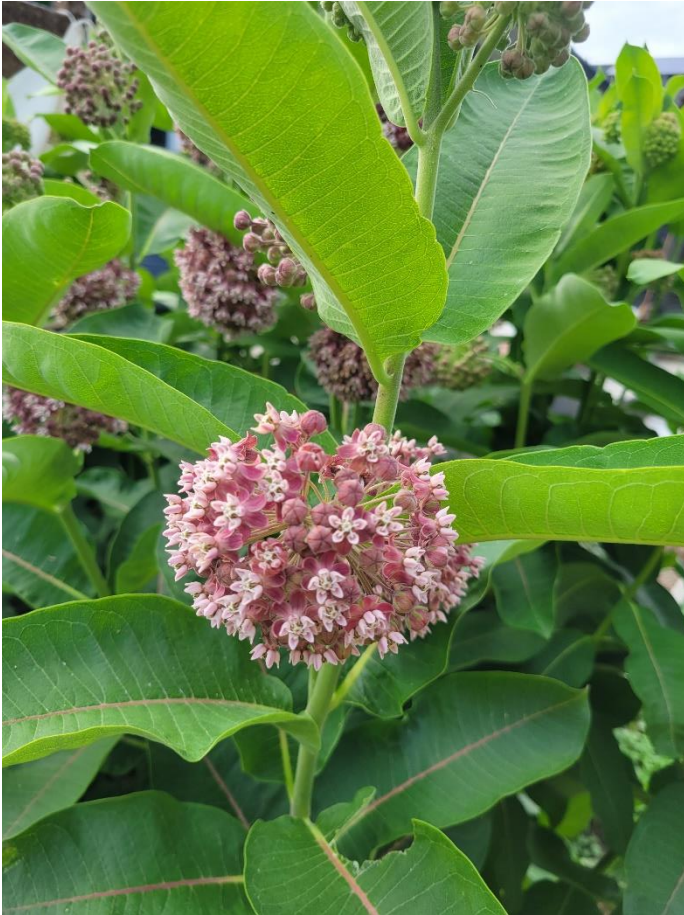
Data for 1994-2003 collected by personnel of the Monarch Butterfly Biosphere Reserve (MBBR) of the National Commission of Natural Protected Areas (CONANP) in Mexico. Data for 2004-2019 collected by World Wildlife Fund Mexico in coordination with the Directorate of the MBBR.

\* Represents colony sizes measured in November of 2003 before the colonies consolidated. Measures obtained in January 2004 indicated the population was much smaller, possibly 8-9 hectares. CT





# Save the Monarchs!



*Photo by Kathy Augustine spinoffmagazine.com*

Plant seeds in the  
Fall or seedlings  
during spring





## Asclepias verticillata



### Whorled Milkweed, Horsetail Milkweed

Fragrant, white flowers bloom in small, flat-topped clusters atop unbranched stems and within the leaf axils, between June and September.



## Asclepias incarnata



### Swamp Milkweed

Swamp Milkweed is a wildlife-friendly perennial. Clusters of fragrant, pink flowers bloom at the top of stems, July-August. The flowers are followed...



## Asclepias syriaca



### Common Milkweed

Common Milkweed is a wildlife-friendly perennial. The large, thick leaves are light green with red veins. Rounded clusters of fragrant,...



## Asclepias tuberosa



### Butterfly Weed, Butterfly Milkweed

Butterfly Weed is a long-blooming, drought-tolerant, wildlife-friendly perennial. Its showy, bright orange flowers bloom in flat-topped clusters,...





| Bloom          | Common Name                    | Scientific Name                               |
|----------------|--------------------------------|-----------------------------------------------|
| Summer         | <b>Forbs</b>                   |                                               |
|                | 1 Common milkweed              | <i>Asclepias syriaca</i>                      |
|                | 2 Joe-pye weed                 | <i>Eutrochium fistulosum</i>                  |
|                | 3 Swamp milkweed               | <i>Asclepias incarnata</i>                    |
| Summer to Fall | 4 Wild bergamot                | <i>Monarda fistulosa</i>                      |
|                | 5 Blackeyed Susan              | <i>Rudbeckia hirta</i>                        |
|                | 6 Blue mistflower              | <i>Conoclinium coelestinum</i>                |
|                | 7 Butterfly milkweed           | <i>Asclepias tuberosa</i>                     |
|                | 8 Common boneset               | <i>Eupatorium perfoliatum</i>                 |
|                | 9 Dense blazing star           | <i>Liatris spicata</i>                        |
|                | 10 Eastern purple coneflower   | <i>Echinacea purpurea</i>                     |
|                | 11 Flat-top goldentop          | <i>Euthamia graminifolia</i>                  |
|                | 12 Grass-leaved blazing star   | <i>Liatris pilosa</i>                         |
|                | 13 Narrow-leaved mountain-mint | <i>Pycnanthemum tenuifolium</i>               |
|                | 14 Narrow-leaved sunflower     | <i>Helianthus angustifolius</i>               |
|                | 15 New England aster           | <i>Symphyotrichum novae-angliae</i>           |
|                | 16 New York ironweed           | <i>Vernonia noveboracensis</i>                |
|                | 17 Seaside goldenrod           | <i>Solidago sempervirens</i>                  |
|                | 18 Smooth blue aster           | <i>Symphyotrichum laeve</i> var. <i>laeve</i> |
|                | 19 Spotted bee balm            | <i>Monarda punctata</i>                       |
|                | 20 Wingstem                    | <i>Verbesina alternifolia</i>                 |
|                | 21 Wreath goldenrod            | <i>Solidago caesia</i>                        |
| Spring         | <b>Shrubs and Trees</b>        |                                               |
|                | 22 Wild plum                   | <i>Prunus americana</i>                       |
|                | 23 Buttonbush                  | <i>Cephalanthus occidentalis</i>              |
| Summer to Fall | 24 Eastern baccharis           | <i>Baccharis halimifolia</i>                  |

nwf.org





# Pesticides





# Herbicides



# Use alternatives



Mulch



Herbicidal soaps



Corn gluten meal



Industrial vinegar



Iron-based  
herbicides



Manually removing  
weeds





# HOUSEHOLD HAZARDOUS WASTE PROGRAM 2021



SPONSORED BY  
COUNTY OF OCEAN, BOARD OF COMMISSIONERS  
& THE DEPARTMENT OF SOLID WASTE MANAGEMENT

Rid your home of potential hazards and protect the environment.

**LOCATIONS OPEN TO ALL RESIDENTS OF OCEAN COUNTY**

## SUMMER FALL SCHEDULE

### APPOINTMENT REQUIRED REGISTRATION ONLINE ONLY

Register by scanning the code, visiting  
[co.ocean.nj.us/recycle](https://co.ocean.nj.us/recycle) or request  
assistance at [ocrecycles@co.ocean.nj.us](mailto:ocrecycles@co.ocean.nj.us)



Scan the QR code using  
your phone's camera, then  
tap the the notification to  
open the link.

#### DO BRING

AEROSOLS  
AUTO PRODUCTS  
CLEANING PRODUCTS  
CHEMICALS/ POOL CHEMICALS  
FIRE EXTINGUISHERS  
GASOLINE  
HERBICIDES/PESTICIDES  
MERCURY-CONTAINING DEVICES  
PAINT THINNERS  
POLYURETHANES/POLISHES  
PROPANE/TANKS  
STAINS/VARNISHES

#### DO NOT BRING

ASBESTOS  
BATTERIES\*  
CONSTRUCTION DEBRIS  
ELECTRONICS\*  
EXPLOSIVES (INCLUDES BOAT FLARES)  
INFECTIOUS WASTE ("RED BAG" WASTE)  
MOTOR OIL\*  
MEDICATIONS/ NEEDLES/ SYRINGES  
OXYGEN TANKS  
PAINT & PAINT CANS\*  
RADIOACTIVE MATERIALS  
SMOKE DETECTORS

ALL MATERIALS (EXCEPT OIL AND GASOLINE)  
SHOULD BE IN ORIGINAL CONTAINERS

\* Materials accepted in our special waste  
program Mon- Sat from 7:30 am to 3 pm

! Limit 200 LBS dry & 20 gallons liquid Per household.  
No containers larger than 5 gallons.

Proof of residency required: driver's license or tax bill.

**NO BUSINESSES OR INSTITUTIONS**

If you need further information call 732-506-5047 or email [ocrecycles@co.ocean.nj.us](mailto:ocrecycles@co.ocean.nj.us)

[CO.OCEAN.NJ.US/RECYCLE](https://co.ocean.nj.us/recycle)



OCEAN COUNTY RECYCLES



RECYCLE COACH APP





# Take action!







Credit: Richard Ellis/Alamy





- Mariposa Monarca Biosphere Reserve, Mexico





# Thank you!

[CO.OCEAN.NJ.US/RECYCLE](https://co.ocean.nj.us/recycle)



OCEAN COUNTY RECYCLES



RECYCLE COACH APP



**Endangered Wings**

@endangeredwings

**Monarch Watch**

@monarchwatch

**NJ Monarchs Page**

@NJMonarchs

**National Wildlife Federation**

@NationalWildlife

**Reserva de la Biosfera Mariposa Monarca-CONANP**

@ReservaDeLaBiosferaMariposaMonarca



# More Information at

- [nps.gov/subjects/pollinators/migratingmonarchs.htm](https://nps.gov/subjects/pollinators/migratingmonarchs.htm)
- [namonarchs.org/es/acerca-de-la-mariposa-monarca/](https://namonarchs.org/es/acerca-de-la-mariposa-monarca/)
- [monarchwatch.org/](https://monarchwatch.org/)
- [worldwildlife.org/descubre-wwf/historias/la-gran-migracion-de-la-mariposa-monarca](https://worldwildlife.org/descubre-wwf/historias/la-gran-migracion-de-la-mariposa-monarca)
- [nwf.org/~media/PDFs/Garden-for-Wildlife/Xerces-NWF/15-Mid-Atlantic\\_Monarch\\_Plant\\_List\\_spread.ashx](https://nwf.org/~media/PDFs/Garden-for-Wildlife/Xerces-NWF/15-Mid-Atlantic_Monarch_Plant_List_spread.ashx)
- [butterflyidentification.com/monarch.htm](https://butterflyidentification.com/monarch.htm)