

# Milkweeds and Monarchs

The beginning of a beautiful relationship



# Quick Milkweed Facts

- There are more than 120 milkweed species in North America
- There are 12 milkweed species found in Wisconsin; four of them endangered
- Milkweeds are among the most sought-after species by nectaring and pollinator insects
- Milkweeds are the only food plant utilized by monarch butterfly larvae....

- All Wisconsin milkweeds are hardy perennials
- All milkweeds are deer-resistant
- Most milkweeds have showy, long-lasting flowers
- *Most* Wisconsin milkweeds make well-behaved garden and landscape plants, clumping or spreading slowly
- There is a Wisconsin milkweed for every site, from sand to clay to loam to muck, from hot sun to deep shade and in between. There is even an annual (non-native) for containers.

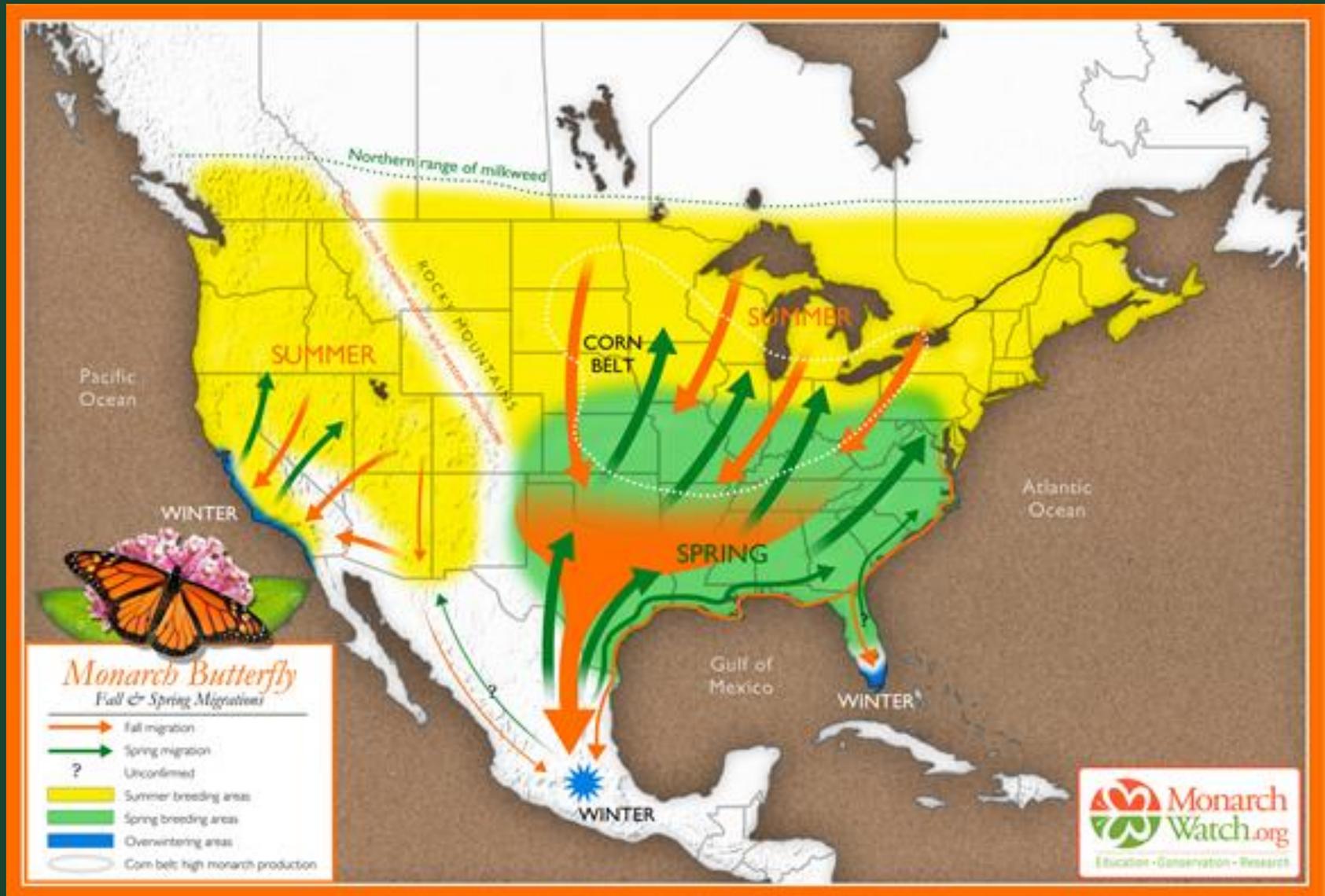
# About those monarchs



# Quick Monarch Facts

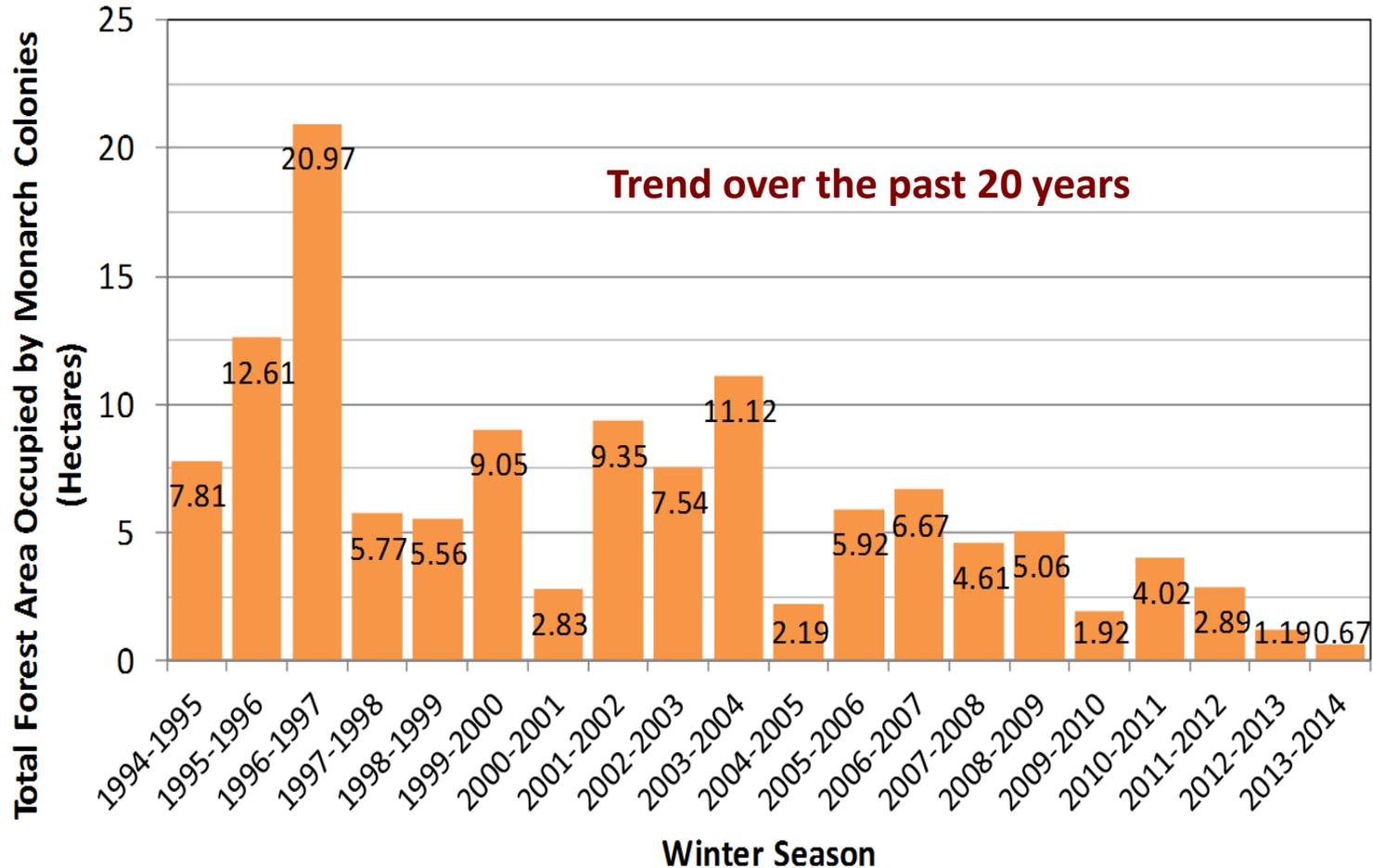
- All northern monarchs must migrate in the fall; no stage in the monarch life-cycle can survive freezing weather
- All eastern U.S. monarchs migrate annually in the fall to one small area of Mexico where they overwinter
- To repeat, monarchs lay eggs only on milkweed plants, and milkweed is the only food their larvae (caterpillars) can eat
- Adult monarchs eat (or rather, drink) almost exclusively the nectar of flowering plants and may be dependant on some native wildflowers in addition to milkweed
- Contrary to popular belief, monarchs are *not* immune to all predators – they are eaten at every stage of their life cycle – and only about two out of 400 monarch eggs laid in the wild survive to reproduce as adults.

Eastern migratory monarchs are found from the Rocky Mountains to Nova Scotia, but tagging studies show that the greatest number are reared in the Upper Midwest, including southern Wisconsin – throughout the “corn belt.”



# A Population in Decline

Total Area Occupied by Monarch Colonies At Overwintering Sites in Mexico  
1994/1995 - 2013/2014



The eastern  
United States  
monarch butterfly  
migration is now  
considered  
*imperiled with  
extinction.*



# Reasons for the decline:

## Loss of habitat is considered the main culprit

- Conversion of Midwest grassland to cropland at an average of 250,000 acres per year since the 1970s, and more recently...
- Planting of genetically modified, herbicide-resistant crops on those acres and existing fields, principally corn and soybeans
- Urban sprawl – conversion of pasture and field to pavement, roof and lawn
- Climate change that has led to both severe storm events and chronic adverse conditions including persistent drought
- Decline of other pollinator species that promote healthy populations of nectar and larval food plants for monarchs
- Other factors we haven't discovered??????

# On to the Milkweeds



# Swamp Milkweed (*Asclepias incarnata*)



# Swamp Milkweed

- Fast grower from seed, matures quickly (1-2 y)
- Long bloomer (June – July, sometimes August)
- Needs damp soil, doesn't appreciate clay
- Sun to part-sun (morning sun is ideal)
- Not a long-lived perennial, but self-seeds
- Pink to purple blossoms are held above stems
- *Very* low in cardiac glycosides
- Stays put in tight, single clumps
- Grows 4 to 5 feet tall
- Available in the commercial nursery trade



**More images of  
swamp milkweed**



# Butterfly Weed (*Asclepias tuberosa*)



# Butterfly Weed

- Slow to mature from seed, up to 3 years
- Long bloomer (June through July)
- Likes well-drained soil, hates clay (sometimes gets root-rot if kept too moist)
- Very long-lived perennial given proper drainage
- Only milkweed *without* milky sap, very low in glycosides
- Grows to 3 feet tall, prefers full sun
- Stays put in a single, dense clump, won't spread
- Considered the best butterfly attractor around
- Available in the commercial nursery trade









# Common Milkweed (*Asclepias syriaca*)



# Common Milkweed

- Matures to flowering in 3 years from seed
- Carries drooping flower umbels in leaf axils
- Is highly aggressive, moves far and fast
- Grows 4 to 5 feet tall, sometimes taller
- Relatively low in cardiac glycosides
- Grows as individual stems spreading from rhizomes, rarely forms a single dense crown
- Not available from commercial nurseries; is sold by some native plant nurseries



# Sullivant's Milkweed (*A. sullivantii*)



# Sullivant's Milkweed

- Matures in 3 years from seed, sometimes 2
- Carries big pink flower umbels above the leaves
- Likes full sun but isn't picky about soil or water
- Grows to 5 feet tall (Wis. Endangered status)
- Latest bloomer, mid-July – early September
- High glycosides, *much* preferred by monarchs
- Very long-lived and consistent year-to-year
- Forms small clumps (3 stems), spreads in time
- Available only from some native plant nurseries





# Poke Milkweed (*A. exaltata*)



# Poke Milkweed

- Matures quickly from seed, 2 years easily
- Carries sprays of white flowers bottom to top
- Prefers shade and damp, rich soil
- Bumblebees absolutely adore it
- Earliest blooming milkweed, late May – June
- Moderate glycoside content
- Grows to 5 feet tall, clumping, spreads little
- Stunning in mass plantings
- Available from some native plant nurseries





# The Monarch Magnet That Isn't a Milkweed

Besides milkweed, if there is one thing you must plant if you want to attract monarchs, it's this native wildflower:

## *Liatris lingulistylis*

For whatever reason, it's caviar to monarch butterflies. Plant it and they will come.

Here are a few other preferred nectar plants: ....



# Belly Up to the Nectar Bar

- **Echinaceas and rudbeckias:** The coneflowers and black-eyed Susans; early to mid-summer favorites
- **Eupatoriums:** The Joe-Pye weeds
- **Silphiums:** Cows love 'em, so do butterflies
- **Sunflowers:** The whole *Helianthus* genus, not just the birdseed and ballplayer feed in a bag
- **Asters:** Particularly the New England aster for fall (although it self-seeds heavily and can be floppy)
- **Goldenrods:** Some are aggressive, but others are not. Stiff goldenrod, showy goldenrod, good; Canada goldenrod, not so good.



**Resources:  
Draw on expert  
knowledge that  
is ready to  
implement**

## Resources for Monarch Butterfly education and restoration

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**EARTH PARTNERSHIP FOR SCHOOLS (EPS)**  
 Engages students, teachers and community partners in restoring native habitats on schoolyards and nearby natural areas. The habitats they create together become learning grounds for science, math, language arts, social studies, student-led inquiry, service-learning and unstructured nature play. <http://www.arboretum.org/eps/>



- Journey North**

### Teaching resources

<http://www.learner.org/jnorth/tm/>

### How you can help

[http://www.learner.org/jnorth/tm/monarch/conservation\\_action\\_resources.html](http://www.learner.org/jnorth/tm/monarch/conservation_action_resources.html)

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**MONARCH EDUCATION** US Forest Service  
 Monarch Butterfly Teacher and Student Resources  
<http://www.fs.fed.us/wildflowers/pollinators/monarchbutterfly/teacherandstudent/index.shtml>

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**Monarch Watch.org**  
 Education • Conservation • Research <http://www.monarchwatch.org/>

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**MONARCH JOINT VENTURE** <http://monarchjointventures.org/>

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**POLLINATOR PARTNERSHIP**  
<http://www.pollinator.org/education.htm>

# Questions?

