Battle for Butterflies

Grow Green Landscape Professional Training
February 3, 2017
MONARCH MIGRATION
MONARCHS IN CRISIS

Monarch butterfly populations have plummeted more than 80% in the last 20 years.
POPULATION DECLINING

![Graph showing population decline over winter seasons from 1994/1995 to 2015/2016.](graph)

Total Area Occupied by Monarch Colonies At Overwintering Sites in Mexico
Summer monarch production area. Production generally increases from S to N and decreases from W to E. Fall monarchs with the highest probability of reaching the overwintering sites in Mexico originate from the area outlined in yellow.

Most important spring monarch production areas: TX, OK, AR, KS.
THREATS TO THE MONARCH

CHEMICALS: Pesticides kill monarch caterpillars & butterflies

CLIMATE CHANGE:
- Key habitat must adjust to warmer temperatures, strong storms & deeper droughts
- Climate change can alter the timing of migrations
A campaign to register a million public and private gardens and landscapes to support pollinators.
• Food
• Water
• Cover
• Place to Raise Young
• Sustainable Practices
**Fading Flutters**

Monarch butterflies play an important pollinator role in our ecosystem. Female monarchs only lay their eggs on milkweed plants, and monarch caterpillars feed solely on milkweed. Due to the loss of milkweed, monarch populations have declined 97 percent between 1996 and 2013. We can help monarchs by planting more milkweed.

**Milkweeds for Monarchs**

The City of St. Louis has developed Milkweeds for Monarchs to help monarch butterflies flutter and flourish. This is just one of many milkweed gardens that have been planted as a part of the program to help monarchs thrive.

**How You Can Help**

There are numerous milkweed species native to St. Louis, such as butterfly weed and swamp milkweed. To help monarchs and other pollinators, use native plants in your garden, and avoid using pesticides, herbicides and fertilizers.

For more information and to learn how you can help make your own monarch garden, visit stlouis-mo.gov/sustainability.

**A Magnificent Migration**

In addition to milkweeds, monarchs need nectar to provide energy for their migratory journey and to build reserves for the winter. St. Louis is an important part of the monarch's migration path. Each fall, millions of monarch butterflies migrate to Mexico and California. In the spring, most monarchs return to their Midwest breeding areas, and the cycle starts again.

**Sustaining People, Plants and Pollinators**

Butterflies, animals and people all share a need for a high quality natural environment. Clean water, green spaces and native plants help ensure that we have the food we need and natural spaces that support our health and well-being.
Austin Parks Department Pollinator Challenge
PLANTING FOR MONARCHS IN AUSTIN

IDENTIFYING THE PERFECT SITE
- 6-8 hours of sun
- Good drainage
- Protected from wind
- Nearby shaded area
- Not a high traffic area
- Easily accessible
- Nearby water source
- Structure for chrysalis

WHAT SOIL IS PRESENT?
Use the NRCS website for information on the type of soil on your property. Search for web soil survey. For tips on how to use the soil survey, visit www.groworganic.com
Monarchs cannot survive without milkweed. It is the only plant the monarch caterpillar will eat and the only plant the monarch butterfly will lay her eggs on. An ideal monarch habitat would contain several milkweed plants to ensure an abundant food source for monarch caterpillars.
**NECTAR PLANTS: MONARCH BUTTERFLY FOOD**

**AUTUMN SAGE**
*Salvia greggii*, likes full to partial sun and rocky soil, generally found in the Edwards Plateau. Blooms from March-Nov.

**GREGG’S MISTFLOWER**
*Conoclinium greggii*, likes morning sun or partial shade. Tolerates poor soil. Blooms from March-Nov.

**NARROW-LEAF CONEFLOWER**
*Echinacea angustifolia*, likes full sun or partial shade and dry soil. Blooms from May-July.

**PRAIRIE VERBENA**
**MAXIMILIAN SUNFLOWER**

*Helianthus maximiliani*, likes full sun to partial shade and rocky or clay soil. Blooms from Aug-Nov.

**BLUE MISTFLOWER**

*Cromolaena odorata*, likes full sun to partial shade and moist sand or clay soil. Blooms from July-Dec.

**ORANGE ZEXMENIA**

*Wedelia acapulcensis*, likes full to partial sun and dry well drained soil. Blooms from May-Nov.

**FROSTWEED**

DEMONSTRATION GARDENS

Visit the following gardens to see what a successful monarch habitat looks like:
Webb Middle School
Mathews Elementary School
Covington Middle School
Lady Bird Johnson Wildflower Center
Austin Parks Headquarters
Zilker Botanical Gardens
Other Resources

Xerces Society: xerces.org/pollinator-conservation/plant-lists

Monarch Watch: monarchwatch.org

Monarch Joint Venture: monarchjointventure.org

Monarch Gateway: monarchgateway.org

Lady Bird Johnson Wildflower Center: wildflower.org

City of Austin: Austintexas.gov/pollinatorchallenge

Texas Parks & Wildlife: tpwd.texas.gov