Thinking Globally, Acting Locally
Milkweeds for Monarchs: The St. Louis Butterfly Project

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Office of the Mayor, City of St. Louis
April 2015
Triple Bottom Line Sustainability Mission Statement:

The City of St. Louis harnesses the strength and spirit of its diverse community to create an economically, socially and ecologically vibrant City for present and future generations - one that dynamically serves those who live, work, and play in the City’s rich and celebrated historic landscape.
THE CITY HAS A SUSTAINABILITY PLAN WITH ENVIRONMENTAL, SOCIAL AND ECONOMIC GOALS

Urban Character, Vitality & Ecology

Arts, Culture & Innovation

Empowerment, Diversity & Equity

Health, Well-Being & Safety

Infrastructure, Facilities & Transportation

Education, Training & Leadership

Prosperity, Opportunity & Employment
SUSTAINABILITY PLAN AND URBAN VITALITY & ECOLOGY

• Support and Increase the City’s Greenscape, Including its Existing Park System and Urban Tree Canopy

• Promote Urban Conservation and Revitalization of the City’s Unique Biodiversity and Natural Resources

• Increase Environmental Literacy
Mayor Slay’s Sustainability Action Agenda

Action Agenda Priorities

1. Create a sustainability resource toolkit for **neighborhoods**

3. Provide easy access to **greenspace**, trails or parks within a half mile or 10 minute walk

25. Double the current eco-literacy rate by launching a program to foster an enhanced connection between **people and urban natural resources**
Connecting People to Nature in the City of St. Louis: A Recommended Nature “Diet”

Nature Pyramid Concept: Tim Beatley
VISITING A CITY IN A GARDEN

Art in Nature

Join us for this art-and-nature appreciation workshop and draw at leisure in a beautiful garden setting. The workshop will cover basic landscape and nature drawings, as well as colour theory, with emphasis on understanding the unique characteristics of our gardens, nature, flora and fauna. Materials will be provided.

Approach our friendly staff at the Visitor Services Centre for more details.

<table>
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<tr>
<th>Workshop</th>
<th>Recommended For</th>
<th>Estimated Duration</th>
<th>Charges/ person/ session ($)</th>
<th>Group Size (per trainer)</th>
<th>MIN</th>
<th>MAX</th>
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<td>P4 – JC2</td>
<td>1.5 – 2 hr</td>
<td>521</td>
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<td>521</td>
<td>15pax</td>
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*Please make your bookings at least one month before the activity. Call 6471 5601 or e-mail NParks_HortPark@nparks.gov.sg.*
Why Launch

*Milkweeds for Monarchs: The St. Louis Butterfly Project*?
Monarchs are iconic: Easily recognizable they are the only butterfly to migrate between Canada, the US and Mexico.

The female monarch will only lay her eggs on a milkweed plant; caterpillar larvae will only eat milkweeds.

Without milkweeds, monarchs cannot exist. Monarchs also need nectar plants to nourish them during their migration.

Milkweed numbers have declined and monarch populations have plummeted by 90%.

People can help by planting monarch gardens.
... AND PEOPLE NEED NATURE

Improved Social Outcomes/Health and Well-Being:

- Access to nature can reduce stress and anxiety, nourish the imagination, and provide important learning opportunities.

- Studies have shown access to greenspace tends to increase physical activity (helping lower obesity rates) and reduce ADHD in children.

Enhanced Community and Economic Benefits:

- Gardening and creating natural areas can help strengthen a community’s sense of place and build relationships between neighbors.

- Greenspace often contributes to neighborhood aesthetics, and proximity to parks and trees can boost market values and lower utility costs.
A MAYOR FOR MONARCHS

Best Practices

Milkweeds for Monarchs: The St. Louis Butterfly Project

City Efforts To Entice “Flying Flowers” Take Flight

By St. Louis Mayor Francis Slay

St. Louis is at work cultivating the local return of a great migration of butterflies — most specifically, that of the Monarch. It doesn’t take much to make a Monarch feel welcome, just a good spot and a safe place to lay their eggs and feed their larvae. Butterflies are both a symbol of hope and a vehicle for positive change. Who doesn’t smile when they see a butterfly hardwired to respond favorably to elements of the natural world? Studies are showing there are actual physical and psychological benefits to seeing people return — things like lowering stress and anger, reducing blood pressure, promoting calm, reducing fear and improving overall happiness.

There are dozens of notable organizations working to help Monarch butterflies. St. Louis is partnering with some of them to bring these successes to the people at the local level and neighborhood scale. We launched “Milkweeds for Monarchs: The St. Louis Butterfly Project” for the benefit of plants, pollinators and people.

Monarchs play an important pollinator role in our ecosystem and agricultural system as they make their annual trip.
AND A COLLABORATIVE EFFORT

- Mayor’s Office
- City Departments
- Community Organizations
- Neighborhood Groups
- Conservation Agencies
- Butterfly Experts
- Plant Specialists
- Nonprofit Stakeholders
- Private Supporters
- Growers
- Garden Centers
- Research Institutions
- Individuals
Gardening Terms

**Deadhead**
- garden maintenance technique of cutting off flowers, leaves, or seed heads to encourage more flowers or prevent seeds from dispersing.

**Divide Clumps**
- the process of separating plants into smaller, manageable portions to promote growth or rejuvenate the parent plant.

**Overcrowding**
- when plants grow too closely together, hindering their growth or health.

**Pinching back**
- cutting back the tips of young shoots to promote bushier growth and prevent leggy plants.

**Seed pods**
- the hardened seed case that encloses seeds after pollination; helpful for propagation.

**Self-seeds**
- when plants reproduce themselves by dropping seeds that grow into new plants without human intervention.

**Staking**
- supporting plants with stakes or other materials to prevent them from toppling or breaking in windy conditions.

**Thin and cut back**
- pruning technique where excess or weak branches are removed, and healthy growth is encouraged.

**Watering**
- the process of providing plants with water, either through rain or irrigation, to support their growth.

**Weeding**
- the removal of unwanted plants from the garden to prevent competition for resources.

**Zones**
- regions divided by climate, where specific plants can be grown with certain environmental conditions.
LEADING BY EXAMPLE: 50 MONARCH GARDENS

Fire Houses

Police Stations
NEW AND LEVERAGED PARTNERSHIPS
EDUCATION AND OUTREACH

Milkweeds for Monarchs: The St. Louis Butterfly Project

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.

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.

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.
NATIONAL WEATHER SERVICE DETERMINES CLOUD OVER ST. LOUIS IS A MONARCH SWARM

"NWS St. Louis wishes good luck and a safe journey to these amazing little creatures on their long journey south!"

-September 2014
TAKING FLIGHT ... AND CELEBRATING
NATURE: COMING SOON TO A NEIGHBORHOOD NEAR YOU
For More Information:

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stlouis-mo.gov/sustainability