

## City of St. Louis Sustainability News

May 21, 2019



*The City's American Cities Climate Challenge Team with Mike Bloomberg: Mayor Krewson, Frank Oswald, Rajiv Ravulapati, Catherine Werner and Don Roe*



### In This Edition:

- Michael Bloomberg in St. Louis
- 2019 City Nature Challenge Results
- City of St. Louis Eco-Literacy Survey & Monarchs
- One Planet Corner: The Urban Light Pollution Effect

Dear Sustainability Subscriber,



*Pictured: Michael Bloomberg, WU Chancellor-elect Martin, Mayor Krewson.*

Mayor Krewson and the City of St. Louis were [recognized as leaders](#) in climate action, when United Nations Special Envoy for Climate Action, Mike Bloomberg, joined with the Mayor and the heads of Washington University and Ohio State to discuss the climate imperative. At Kiener Plaza, Bloomberg [announced new support](#) from Bloomberg Philanthropies; among others, Washington University will convene a Midwestern Collegiate Climate Summit in 2020. The City has been working in close partnership with Wash U. on various climate efforts, but this Bloomberg gift will

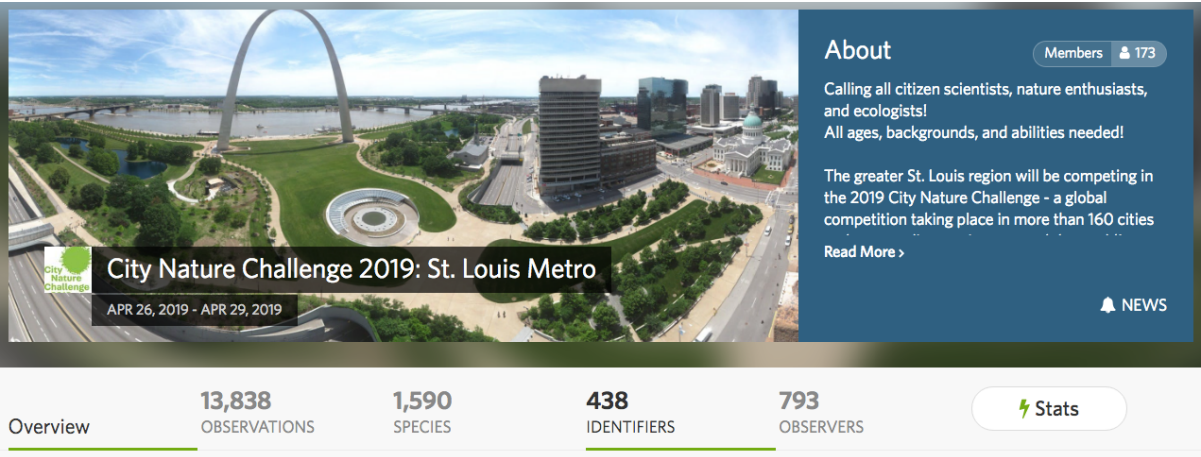
allow Wash U. to expand its work in support of the City's American Cities Climate

Challenge award.

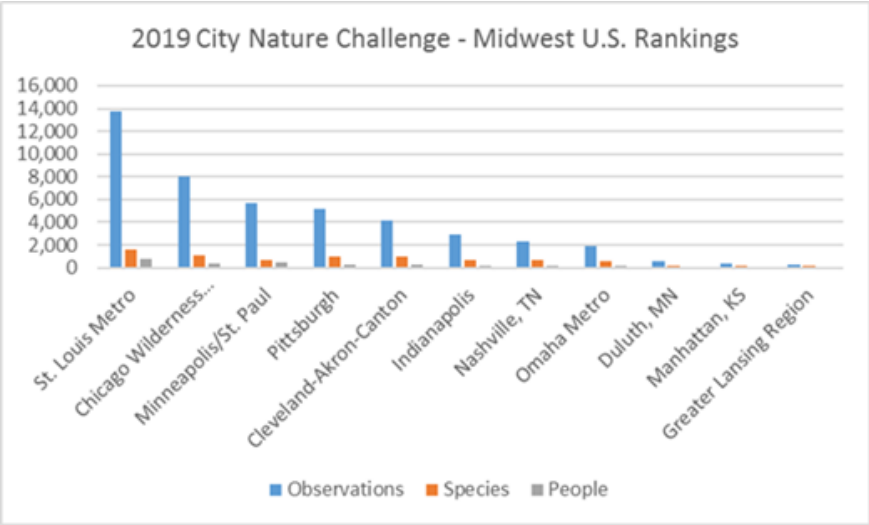


**REMINDER:** This is the final week to take the City of St. Louis Clean Energy Survey. If you have not already done so, please [share your views on climate priorities](#). The survey closes on May 31st.

2019 City Nature Challenge Results



Thank you to those of you who helped propel the St. Louis Region’s City Nature Challenge effort to another year of successful results. Out of 159 cities and regions that participated in the worldwide 2019 City Nature Challenge, the St. Louis Region ranked 13th in number of participants, 22nd in number of species observations, and 23rd in number of species identified. That is the global top 15% in each of the three competition categories! In the Midwest U.S., the St. Louis region was #1 in all categories. (Chart courtesy of The Missouri Botanical Garden).



In addition to the Region’s impressive City Nature Challenge standings, efforts like these are used in the City to help establish an urban biodiversity inventory. Different groups and individual

citizen scientists went above and beyond by surveying specific urban biodiversity monitoring

locations for the presence or absence of surrogate species. If you are interested in helping with the urban biodiversity inventory, please contact me to get involved.

### **City of St. Louis Eco-Literacy Survey: 2014 & 2018**

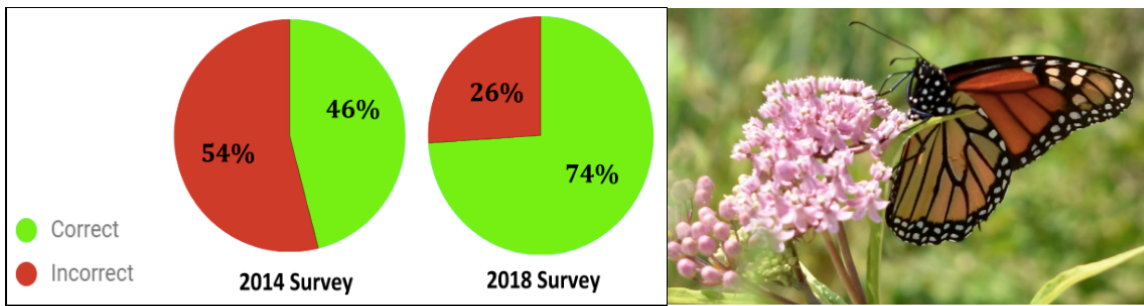
In the past several years, the Office of Sustainability has been working to increase eco-literacy through a variety of efforts, ranging from promoting monarch butterfly gardens to encouraging participation in citizen science activities, such as the City Nature Challenge. What is eco-literacy? There are differing definitions, but I see it as a combination of someone's knowledge and their views/values regarding the outdoors and connecting to nature. Do St. Louis City residents care about nature? If so, why and in what ways? Understanding people's perception, appreciation level and knowledge of urban natural resources is part of our being a Biophilic City, and can be valuable for helping the City prioritize efforts in ways that appeal to residents, while also supporting urban ecology. As part of the Mayor's Sustainability Action Agenda, in 2013 the City set a target to double the eco-literacy rate within St. Louis by 2018.

In the summer of 2014, the City conducted a baseline Eco-literacy survey. In the winter of 2018, the Office of Sustainability issued the same Eco-literacy survey to gauge whether progress had been made and whether priorities had changed. The purpose of conducting the Eco-literacy survey was two-fold: (1) to ascertain priorities and perceptions of City residents around the topic of connecting to nature; and (2) to learn whether the knowledge of nature improved, in light of monarch conservation efforts undertaken in the intervening years.

### **Eco-literacy & Milkweeds for Monarchs: The St. Louis Butterfly Project**

Improvement in correct responses on the Eco-literacy survey suggests that the City's urban monarch conservation efforts resulted in increased awareness and factual understanding. The survey asked: **What plant do monarchs need to survive?** Less than half of the respondents knew the correct answer (milkweed!) in 2014, but nearly three quarters knew the correct answer in 2018.

**Other Monarch Butterfly News:** CityLab recently wrote an [article](#) entitled Designing the



*Monarch on Swamp Milkweed at Zoo Expansion Site*

Butterfly-Friendly City, and featured some of the monarch conservation work spearheaded by the City of St. Louis. Have you seen many monarch butterflies this spring? The U.S. Fish & Wildlife Service is expected to announce in June whether it will list the [monarch as a threatened or endangered species](#) pursuant to the federal Endangered Species Act.

### Get Involved & Engage In Sustainability

- **Beautification:** Brightside St. Louis is offering Neighbors Naturescaping small grants up to \$1,500 for neighborhood beautification projects. Applications are due [August 9th](#). Plants and tools will be available to winners in the Fall. Attend the [St. Louis Urban Gardening Symposium](#) on June 1st, or contact Brightside for more information.
- **Birds:** The St. Louis Audubon Society is offering the **Cathleen Creley Memorial Conservation Grant**, \$5000 for bird conservation projects in St. Louis. Applications are due on [May 24th](#). In addition, the 2019 St. Louis Birdathon is open during the month of [May](#). You can also take the St. Louis Audubon's cat and bird survey [here](#)!

### Attend A Sustainability Event: (All events are free & held in the City of St. Louis)

- **Nurture Womxn's Collective** is on May 22 from 9:00am - 9:45am at 20 South Sarah Street in the Korte Board Room For all women in businesses around the Cortex district.
- The **Bring it Together Celebration of Older Americans** will be held in Forest Park on [May 24th](#) from 8:00am-3:00pm at the Muny Opera Pavilion.
- earthday365 is celebrating 30 years of the St. Louis Earth Day Festival with a **community tree planting** in O'Fallon Park on [May 25th](#) at 9:00am-12:00pm.

- Prairie Farms Dairy **Summer Zoo weekends** will run [May 24th- September 2nd](#).
- The **St. Louis African Arts Festival** is [May 25-27th](#) at the World's Fair Pavilion in Forest Park. The [Safari Teens Hut](#) is looking for volunteers.
- The **OneSTL Sustainability Lab** will be held at T-Rex on [May 28th](#) from 3:30-7:00pm. Doug Farr will be the [featured speaker](#) at 5:00 pm.
- Brightside will host the **St. Louis Urban Gardening Symposium** from 8:30am-12:30pm on [June 1st](#) (fee waived for Neighbors Naturescaping participants).
- Earthways Center will host the **Green Living Festival** at the Botanical Garden on [June 1st](#) from 9:00am-4:00pm. There is free entry for City/County residents 9am - noon.
- Gateway Greening will hold an **Urban Chicken Keeping Workshop** on [June 8th](#) from 10:00am-11:00am.
- Stephanie Arne of Mutual of Omaha's Wild Kingdom will speak at the **Women in the Wild lecture** at the Saint Louis Zoo on [June 12th](#), 7:00-8:30pm.

**Save the Date:**

- St. Louis Sustainable Backyard Tour - June 23rd
- OneSTL Sustainability Lab - June 25th
- The Great MonArch Migration Event - September 28th

Ever wonder about the impact of outdoor lights? Below my signature block, Morgan Geile has written a One Planet Corner piece on Light Pollution. The piece addresses potential impacts on birds and points to ways in which you can help.

Wishing you a great start of the Summer. As always, thank you for all you to do advance sustainability in the City of St. Louis.

With kind regards,

Catherine Werner  
Sustainability Director  
City of St. Louis Office of Sustainability  
[WernerC@stlouis-mo.gov](mailto:WernerC@stlouis-mo.gov)



**NEW:** Follow me on Twitter: [@STLSustainable](#)

[www.stlouis-mo.gov/sustainability](http://www.stlouis-mo.gov/sustainability)

---

## The One Planet Corner

Connecting St. Louis sustainability efforts with global issues

### The Urban Light Pollution Effect

By Morgan Geile, new official resident of St. Louis

The lights shining in cities all over the world help make human lives more productive and safe, but can be detrimental to the health and well-being of both people and birds. When there is too much light radiating out of cities and into the surrounding natural environments, it is considered light pollution. Light pollution can play a role in affecting circadian rhythms and disorienting [people](#) and wildlife that depend on periods of darkness or natural sources of light, like the moon. A recent [National Geographic article](#) on light pollution describes how city lights can end up radiated far from the actual source of light. This can have wide-ranging impacts.

#### Bright Lights / Big Cities ... Can Harm Birds

[Light pollution can cause a problem for migrating birds.](#) Scientists at the Cornell lab of Ornithology recently cited light pollution as a contributing factor to birds becoming blinded by glare or disoriented and colliding into buildings. The lab at Cornell went on to [rank the cities](#) that presented the greatest risk for attracting and disorienting birds during migration by studying light pollution within migration corridors and geography of cities. The

results were published in the journal [Frontiers in Ecology and the Environment](#) and are shown to the right. **St. Louis has been ranked 5th most dangerous city for birds during the spring migration and 6th most dangerous for the fall migration.** The

MOST DANGEROUS CITIES FOR BIRDS: SPRING MIGRATION	MOST DANGEROUS CITIES FOR BIRDS: FALL MIGRATION
1. Chicago	1. Chicago
2. Houston	2. Houston
3. Dallas	3. Dallas
4. Los Angeles	4. Atlanta
5. St. Louis	5. New York
6. Minneapolis	6. St. Louis
7. Kansas City	7. Minneapolis
8. New York	8. Kansas City
9. Atlanta	9. Washington, D.C.
10. San Antonio	10. Philadelphia

study also pointed out that while migration lasts for several months, the heaviest migratory activity will occur over a span of just a few days, so turning off exterior and building lights for even short periods during bird migration times can make a big difference. **The Audubon Society** also promotes several ideas and practices through its bird-friendly [Lights Out](#) program.

The **International Dark Sky Association (IDA)** has a mission to protect the nighttime environment and our heritage of dark skies through environmentally responsible outdoor lighting. The IDA [website](#) offers a lot of information on what kind of lighting is better for reducing light pollution. Much of this has to do with the temperature (or color) of the LED, which is measured in Kelvin. Bluer and whiter lights are higher on the spectrum (4000K-5000K), while “darker” and redder lights are lower (around 3000K). It is important to find a balance between a temperature that is dark enough to reduce light pollution, but not so “dark” as to negatively affect security camera rendering. The IDA website also offers [things you can do now](#) to start reducing your light pollution footprint. These include:

- Use lower temperature (color) LEDs and compact fluorescents;
- Use dimmers, motion sensors, or timers on outdoor lighting;
- Use outdoor lighting fixtures that shield the light source to minimize glare and light trespass;
- Turn off unnecessary indoor lighting, particularly in empty buildings at night;
- Maintain as much overnight dark as possible. Leave the bathroom lights off if you must get up, or use a dim red light that will not disrupt your nighttime physiology;
- Turn off devices an hour before bedtime. When available, use apps that filter out blue wavelengths emitted by your handheld electronics; and
- If you live in a high-rise building, use drapes or blackout curtains to reduce bird collisions (so the birds are not disoriented by indoor lights).

### **Light Pollution Solutions in St. Louis**

The City of St. Louis is in the process of replacing its 52,000 High Pressure Sodium street lights with LEDs; an effort that is being headed by the **City's Streets Division** (logo pictured at left). Replacing the old lights with LEDs is more cost efficient, saves the city electricity, and supports safety and security camera uses.



The new street LEDs are **Dark Sky International** [compliant](#), meaning they have been given an official seal of approval, noting the lights should help reduce the light pollution footprint.

The **Gateway Arch** has also joined the effort to reduce light pollution, particularly for migrating birds, and has a program to [turn off the lights](#) during peak activity of the spring and fall bird migration. The Arch is one of the tallest structures in the city. Situated within the Mississippi Flyway (which follows the Mississippi River), its location is a potential major disrupter to migrating birds. Keeping the Arch and Archgrounds dark helps reduce the chance for migrating birds to be lured off course.