

# HABITAT HERALD

Wildlife Austin's monthly Newsletter



## July 2015



In this edition of the Habitat Herald we will meet our newest Wildlife Austin intern, Camille Cotsakis. In our Living In A WUI segment, explore why it is hotter in the city than the surrounding rural areas due to a phenomena called the Urban Heat Island Effect. Learn tips to mitigate the Urban heat island effect and what causes the heat experienced in an urban setting.

Explore upcoming events such as Grow green and Texas A&M Agrilife Extension's Backyard Basics: Backyard Chickens class. You can learn about the various breeds, caring for chicks, ideas to beat boredom, diets for delicious eggs and keeping the coop clean. Master Gardener Ally Stresing will help you get started with this informative talk on raising the home flock. Ally is an accomplished vegetable gardener who decided that no backyard garden is complete without chickens. We hope you enjoy this edition of the Habitat

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## Would you like to receive the newsletter?

E-mail us at  
[wildlife@austintexas.gov](mailto:wildlife@austintexas.gov)



### Wildlife Austin

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Parks and Recreation  
919 W. 28 1/2 St.  
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[wildlife@austintexas.gov](mailto:wildlife@austintexas.gov)

## UPCOMING EVENTS:

Saturday, July 18th:  
10:00am to 1:00pm  
Intergenerational Fun Fair  
Asian American Resource Center  
<http://www.austintexas.gov/event/intergenerational-fun-fair>

Saturday, July 25th:  
8:45pm  
Deep Eddy Splash Party Movie Night  
Deep Eddy Pool  
<http://www.austintexas.gov/event/deep-eddy-splash-party-movie-nights-1>

Thursday, July 23rd:  
6:00pm to 9:00pm  
Nature Night: Birds of Prey  
Lady Bird Johnson Wildflower Center  
<http://www.wildflower.org/nature/>

Thursday, August 6th:  
10:00am to 12:00pm  
Grow Green: Backyard Basics:  
Backyard Chickens  
Travis County AgriLife Extension  
Office  
<https://agriliferegister.tamu.edu/TravisCounty>





Camille Cotsakis is a Summer Intern at the Parks and Recreation Department with Wildlife Austin where she collects field data and generates maps of current milkweed locations at parks and preserves around the City of Austin, for monarch conservation.

She graduated from Sam Houston State University, with a bachelor's degree in Environmental Geography in May 2015. Working with Wildlife Austin has become a perfect match between her extensive knowledge of G.I.S. as well as environmental concerns facing the world today. In fall 2015, she will begin her Master's degree in Geography at Texas State University, and will continue her environmental work concentrating on land management and sustainable development.

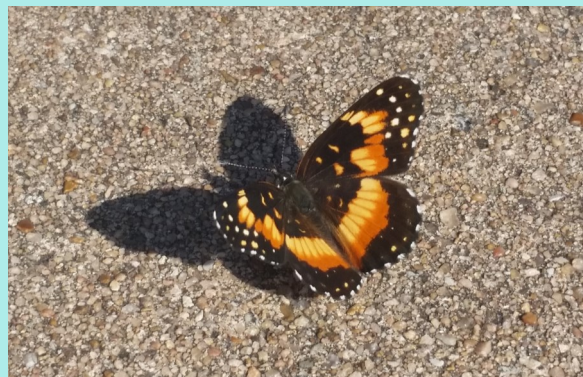


Photo by: Camille Cotsakis



# Living In a WUI

Have you noticed that it is hotter in the city than out in the country? Urban centers, abundant with concrete and dark materials, absorb heat much more than plants and natural areas that are found in rural areas or open spaces. This phenomenon is known as the urban heat island. This extra heat that we experience can be a serious problem for our health, the environment, and our energy usage.



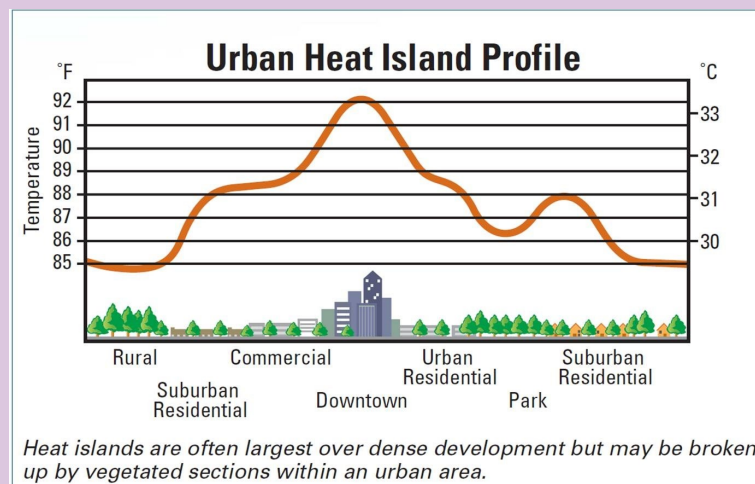
**Figure 1- Parking lots and other dark concrete absorb heat and contribute to the urban heat island effect. Green spaces reflect the sun's rays and take in carbon dioxide which cools the region. Incorporating more vegetation into paved areas will make places more comfortable in the summer's heat.**

An urban heat island is a metropolitan area which experiences significantly hotter temperature than the surrounding rural areas. The temperature difference is usually larger at night and when there is little to no winds. The main cause of the urban heat island is the modification of lands by urban development and heat generated by energy usage (i.e. air conditioning units). Concrete, buildings, industrial activities, and humans have contributed to the creation of higher temperatures in metropolitan areas than the surrounding regions.

Elevated temperatures from the urban heat island, especially during the summer, can affect a community's environment as well as quality of life. These impacts include: increased energy consumption, elevated emissions of greenhouse gases, and compromised human health. Hot weather drives up demand for electricity used for cooling. This leads to an increase in emissions from power plants with both air pollutants and greenhouse gases. During the summer months, higher temperatures and air pollution can cause discomfort, respiratory problems, heat cramps, heat stroke, and even heat related deaths. This is particularly a problem with children, older adults, and those with heart conditions.

# Living In a WUI

With the effects of increased temperatures, urban heat islands can produce secondary effects on local meteorology and water quality. These heat islands can, in extreme cases, alter local wind patterns, change the development of clouds and fog, and change the rate of precipitation. Hot pavements and roof surfaces transfer excess heat to rainwater, which drains into the sewage system and raises the water temperature. When the water is released into streams, rivers, ponds, and lakes, rapid changes in temperatures can stress aquatic ecosystems causing deadly consequences.



An open space is an undeveloped land that is accessible to the public. Examples include public parks, vacant properties, lake and river fronts, communal gardens, urban forests, hillsides, and cemeteries. Open spaces provide community, environmental, and economic benefits that will mitigate rainwater runoff, improve air quality, provide wildlife habitats, provide public places for socializing and recreation, and improve quality of life. Most important, open spaces reduce the urban heat island effect. Wildlife species in urban areas already face a number of threats. Urban development has fragmented their habitats and destroyed their food and water sources. The urban heat island effect causes heat stress in wildlife similar to what we humans experience. Plants have been shown to reduce the urban heat island effect by shading heat absorbing surfaces. Green spaces also provide habitats for a variety of animals, birds, fish, and insects. However, the solution is far more complex than planting more trees.

# Living In a WUI

Green infrastructure must be maximized while reducing the costs of the built environment. Anyone can help mitigate the urban heat island effect by following these six strategies for cool spaces. These six strategies include: cool roofs, green roofs, green walls, cool pavement, trees, and shading. Having a lighter colored roof with plant material, like vines, keep your home cooler in the summer while also reducing the amount of carbon dioxide in the air. Cool pavement includes materials and construction techniques selected to reduce the amount of sunlight absorbed. Using light colored concrete with grass or plants around the perimeter will make the surface more comfortable to walk on and touch. Trees and man-made shading lower the temperature inside your house as well as outside and make your home a more comfortable place. By incorporating these six strategies and making smart choices when constructing, updating, and landscaping a home, we can reduce the heat island effect. While both open spaces and home landscaping are an important part of a prosperous city, communities that have green infrastructure are more livable, produce fewer pollutants, and are more cost effective to operate. So in the end, would you rather be surrounded by concrete or plant life? Choose Plants!



Photo by: Camille Cotsakis

Written by: Camille Cotsakis—Wildlife Austin Summer 2015 Intern

For more information about cool spaces visit [www.austintexas.gov/coolspaces](http://www.austintexas.gov/coolspaces)

# School Yard Habitat Update

## Donations and volunteers needed!

Campuses are looking for donations of the following materials for fall workdays:

- ✂ Compost and/or soil
- ✂ Native seeds, plants, shrubs and trees
- ✂ Tools
- ✂ 4 inch pots
- ✂ Limestone blocks
- ✂ Cedar logs
- ✂ Decomposed Granite
- ✂ Bird Feeders and/or bird seed



**Schoolyard Habitat Success Depends on Volunteers Like You!**

**For more upcoming volunteer opportunities, please contact:**

Anne Muller AISD Outdoor Learning Specialist [amuller@austinisd.org](mailto:amuller@austinisd.org) or 841-5070