

Spring Peeper Program



Range: Saint Louis Metro Area and surrounding watersheds

Habitat: Lakes, ponds, streams, creeks, temporary and seasonal areas of standing water

Focus species: Spring Peepers, Cricket frogs, and Chorus frogs



Project Goal

The goal the Spring Peeper Project is to increase the Saint Louis urban frog and toad diversity by reestablishing a viable and sustainable breeding populations of Spring Peepers (*Pseudacris crucifer*), Western Chorus Frogs (*Pseudacris triseriata*), and Cricket Frogs (*Acris crepitans blanchardi*) to the watersheds located within the Interstate 270 beltway.

This long-term project will consist of three main components: 1.) Surveying 2.) Habitat Viability Study 3.) Habitat mitigation and the creation of green corridors suitable for spring peepers and other frog and toad species. These components will be broken into three 3-year long phases



Background

Based on a national study conducted by the U.S. Geological Survey's Amphibian Research and Monitoring Initiative (ARMI) "Trends in Amphibian Occupancy in the United States" there is an estimated 2-3% decline in frog and toad populations across the Midwest beginning in the 1990's (Adams MJ., et al. 2013).

Local Watersheds

The Saint Louis watersheds, which run through hundreds of urban neighborhoods, including the watershed where Forest Park and the Saint Louis Zoo reside, have a long and troubled history. Since the founding of Saint Louis, many of our smaller creeks and rivers that make up these watersheds were channelized, straightened, partially buried in the case of River Des Peres and often used as sewers as the city continued to grow and to expand.

Many of the other remaining watershed areas were also developed or altered for urban use including the process of channeling and draining areas with standing water.



This project will utilize multiple strategies for surveying and will include both crowdsourcing methods and traditional automated bioacoustics monitoring methods. The following auditory methods/projects will be used to survey the watershed area of the Saint Louis region:

Crowdsourcing Projects

- FrogWatch Volunteer Observations
- FrogCall Observations
- iNaturalist Observations

Traditional Bioacoustics Monitoring Methods

- Permanent Monitoring Sites with the use of Wildlife Bioacoustic monitoring equipment.
- Site and Field Visits with Trained Staff.



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As urban development expanded, so did the need for recreation use of these watersheds, which led to the conversion or creation of local ponds and lakes into stocked-filled fishponds for recreation. As more of the remaining open areas within these watersheds were developed, urban runoff containing excess salt, pesticides, herbicides and other man-made chemicals has also degraded many of our watersheds.

What the Data Indicates

Observations from local frog and toad survey projects around the Saint Louis area indicate a possible absence or decrease of three of the more aquatic members of the hylidae family (Spring Peepers, Chorus Frogs, and Cricket Frogs) within the highly urbanized area of Saint Louis. This area heavily correlates with the area inside of the Interstate 270 beltway that surrounds Saint Louis City proper and its surrounding suburban communities.

Conclusion

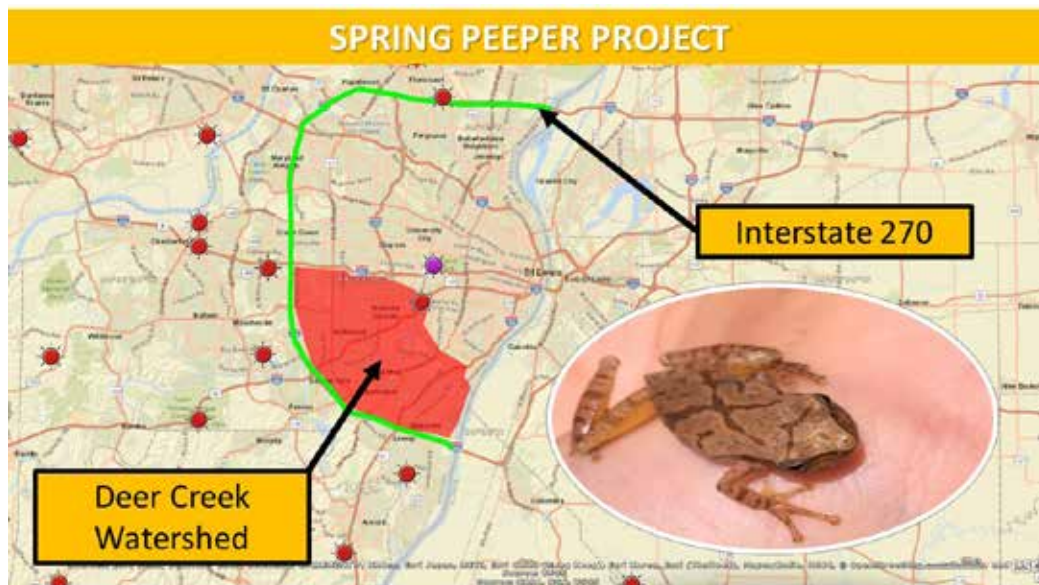
Due to these changes and alterations of our watersheds, the diversity of frogs and toads within these areas has decreased, especially the smaller more aquatic members of the Hylidae family.

These species play an important role in the local ecology as part of our aquatic food webs and are considered indicators of environmental health. It is essential that we understand the scope, geographic scale, and cause of these declines before it is too late.

How you can Help

To help our project work towards bringing back our frog and toads diversity to the Saint Louis area check out one of the following actions:

- Help collect frog and toads with your smart phone through our new frogcallstl project (<https://sites.google.com/view/frogcallstl>)
- Learn how to become a frogwatch volunteer (<https://www.stlzoo.org/education/frogwatchusa>)
- Tell someone about our project



Blanchard's Cricket Frog (Acris crepitans blanchardi)



Northern Spring Peeper (Pseudacris crucifer crucifer)

Saint Louis Zoo WildCare Institute Mission

The WildCare Institute is dedicated to creating a sustainable future for wildlife and for people around the world.