

# Urban Heat Island Mapping Campaign

A community project to map extreme heat in Raleigh and Durham!

Did you know? In the United States, heat waves injure more people than all other natural disasters combined.

## About the Project

In the summer of 2021, dozens of volunteers rallied to participate in a local citizen science project mapping heat across Raleigh and Durham! (What's **citizen science?**)

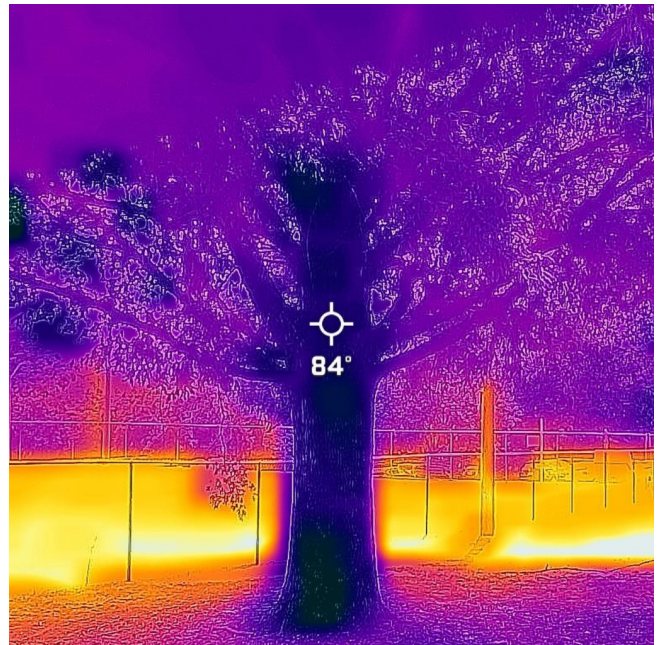
Citizen Scientists used a variety of apps and sensors to walk, drive, and bike diverse routes to capture critical heat and climate data. This data will be used to develop a high-resolution temperature map of Raleigh and Durham, which will reveal the hottest/coolest parts of the area and the extent of the temperature differences between them. Check out the **other areas** being studied in 2021!

By understanding where the most extreme temperatures occur, ongoing heat mitigation efforts by nonprofits, urban planners, public health officials, and urban foresters will be able to provide resources to areas of the community that are most vulnerable to the impacts of extreme heat.

Thank you so much to everyone who helped make this project a success!

## Project Data

- **1** data collection day
- **2** cities
- **3** shift times
- **4** apps
- **4** types of sensors and devices
- **about 24** routes and sites
- **at least 130** square miles
- and **over 160** volunteer Citizen Scientists!



An infrared image showing the impact of a tree on surrounding temperatures at Chavis Park

**Stay tuned for updates on the collected heat data and future opportunities to get involved!**

## Collect More Data

Contribute to climate and weather research by sharing what you experience right in your neighborhood with **ISeeChange!**

[➔ ISeeChange](#)

Continue your Citizen Science efforts by helping developers beta-test **Cozie**, a new smartwatch app to examine heat comfort!

[➔ Cozie](#)

## Learn More

To learn more about this project and urban heat islands, please visit the **main project page** at the **North Carolina State Climate Office** or check out the resources below!

[➔ UHI Mapping Project](#)

Mini-seminar with Dr. Vivek Shandas,  
Founder and Director of the  
**Sustaining Urban Places Research  
Lab**

Mini-seminar with Dr. Angel Hsu,  
Assistant Professor of Public Policy  
and Environment at UNC, and  
Director of the **Data-Driven  
EnviroLab**

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#### ▲ On Maps

- **The Power of Maps**, ArcGIS
- **Sensor Data to Heat Maps: The Analysis Process**, CAPA Strategies (2020)
- **Houston and Harris County Heat Action Team**, (2020)

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#### ▲ On Heat Health & Safety

- **Heat Related Illnesses**, CDC (2018)
- **Extreme Heat**, Ready (2021)
- **The Impacts of Climate Change on Human Health**, US Global Change Research Program (2016)

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#### ▶ On the Urban Heat Island Effect

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#### ▶ On Heat Equity

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#### ▶ On Urban Greening

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Explore other topics related to the **Environment, Disaster Relief, Health and Medicine**, and how **YOU** can help over at the **Triangle Cause Wiki!**

**Friday**  
**July 23, 2021**



**Share This Need**



## About This Partnership

The 2021 Raleigh and Durham Urban Heat Island Temperature Mapping Campaign is a partnership between the Museum of Life and Science, NC Museum of Natural Sciences, Durham County, the City of Raleigh, the State Climate Office of North Carolina, National Weather Service Raleigh Office, and Activate Good. This project is made possible by NOAA and **NIHHS**.

