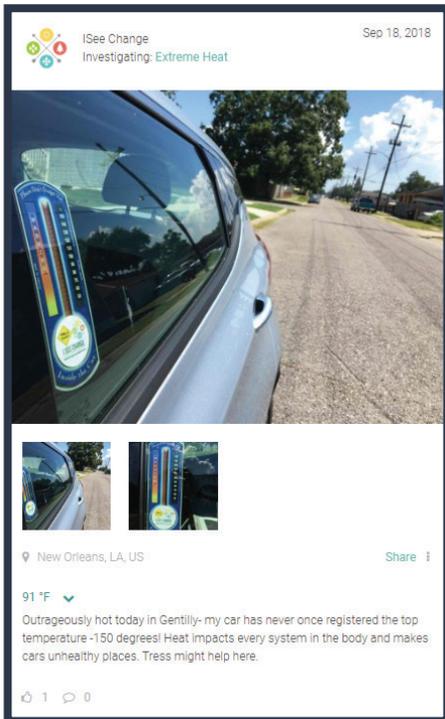


# HELP OUT THE MUSEUM OF SCIENCE

Our project is aimed at connecting citizen science projects to a community deliberation about extreme heat. By signing up for ISeeChange, you are helping us and resilience planners learn about where the hottest areas of Boston are. With this information, they are able to plan a course of action on how to mitigate extreme heat in Boston.

Go to [SciStarter.org/NOAA](https://SciStarter.org/NOAA) to get started.



## ISeeChange INSTRUCTIONS

### STEP 1 SIGN UP

Sign up on [SciStarter.org/NOAA](https://SciStarter.org/NOAA). Search for ISeeChange then click on its website link. Download the ISeeChange app from the App Store, Google Play, or sign up online.

### STEP 2 LOCATION SERVICES

When you create your ISeeChange account, be sure to turn on your location services\* if on a mobile phone. (Location services are needed to gather geolocation for more accurate data collection.)

*\*In your settings on ISeeChange, toggle the button to "Add my posts to SciStarter" and "Notify me when.... Someone comments on my sighting."*

### STEP 3 INVESTIGATION

Click "investigations." You can also press the "+" button from the sightings feed. Choose Boston Extreme Heat investigation.

### STEP 4 SIGHTING

Click "submit a sighting."

### STEP 5 OBSERVATION

Type your observations in the "What do you see?" box.

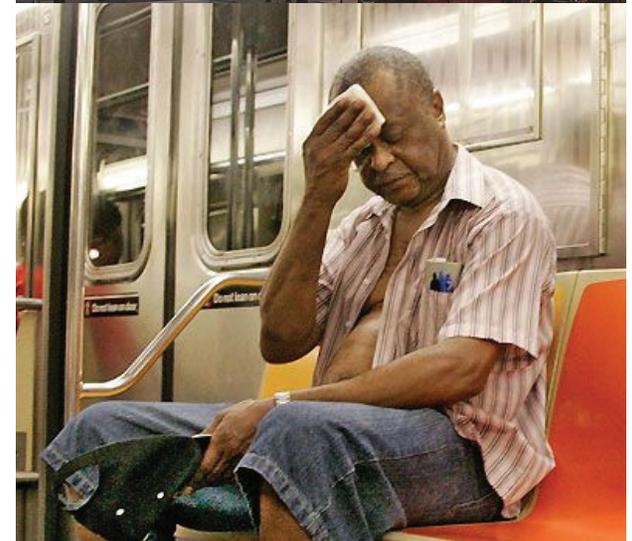
### STEP 6 PICTURES

If you have a picture to add, click the camera icon to upload or take a picture. You will need to give the app access to your camera and/or your photos.

### STEP 7 SUBMIT!

Press submit! Your post will appear in the sightings feed and will be synced to local weather and climate data. Over time, community members can track how climate is changing, season to season, year to year, and understand the impacts on daily life.

# WICKED HOT BOSTON



Cover photos by Duran Rana on Unplash and the Associated Press/Richard Drew



Museum of Science.

# EXTREME HEAT

## What is a heat wave?

The City of Boston defines a heat wave as extended periods of extreme heat, or periods of three or more days above 90 degrees Fahrenheit.

## Is Boston getting hotter?

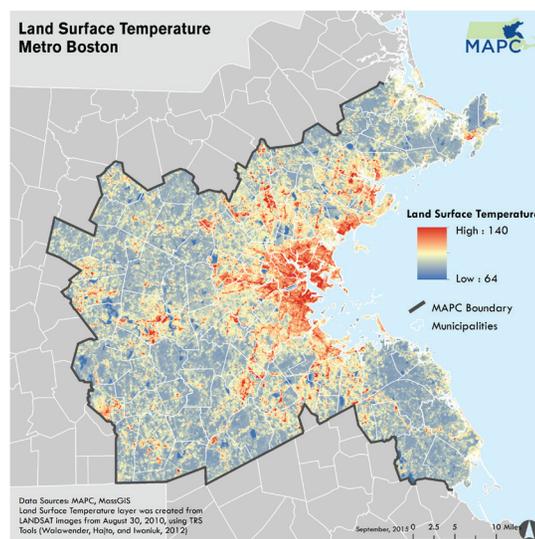
Temperature in the northeastern US increased by almost two degrees Fahrenheit between 1895 and 2011. The number of heat waves is also increasing throughout the US. The average summer temperature in Boston from 1981 to 2010 was 69 degrees F. It may be as high as 76 degrees F by 2050 and 84 degrees F by 2100. From 1971 to 2000 there were 11 days per year over 90 degrees. There may be as many as 40 by 2030 and 90 by 2070, which would be nearly the entire summer.

## Why is extreme heat such an important issue?

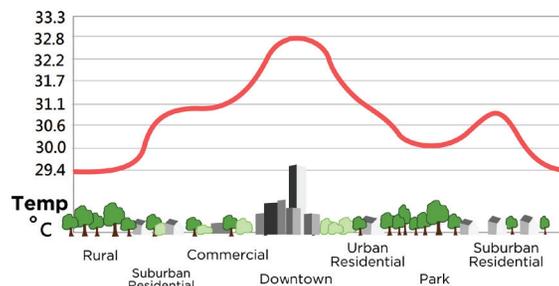
Extreme heat creates social, economic, and environmental impacts. This increased heat creates deadly environments for humans and animals, as well as causing infrastructure such as power grids, roadways, and waterlines to fail. Extreme heat is the cause for the most weather-related deaths, more than hurricanes, tornadoes, and flooding.

## What is the urban heat island?

The urban heat island (UHI) effect is when the urban areas are hotter than the surrounding non-urban areas. This urban heat occurs because of human-made heat and from the physical landscapes of cities. Human-made heat can come from burning fossil fuels for transportation and from air-conditioning units, creating hotter air around them. The physical components of a city include asphalt, concrete, and buildings. These materials absorb heat from the Sun during the day and release the heat back into the air at night. This causes cities to be hotter at night, not allowing them to cool down like the non-urban areas around them.



## URBAN HEAT ISLAND PROFILE



## HOW CAN YOU HELP? Sign up for ISeeChange!

This platform is called ISeeChange. It is for documenting and understanding the environment around you and seeing how weather and climate are changing throughout your city. It allows you to track the changes around you, creating a better sense of your environment and allowing you to participate in community adaptation decisions.

Once you sign up for ISeeChange, you can collect data on extreme heat events here in Boston. By posting to our extreme heat investigation, it allows us and the cities of Boston and Cambridge understand where the hottest parts of the city are. It will help them to make better-informed decisions about what to do to create a cooler Boston area. Feel free to post how you are cooling down, areas of the city that feel extremely hot to you, places in the city you think are cooler, ways you think that you can mitigate extreme heat in your area, or whatever you feel!

*See back panel for sign-up instructions.*

