**Climate change is bringing excessive heat to our doorstep: let the data in the door.**

**Place of submission: USA Today (or any another US newspaper)**

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Last year was the warmest year on record. Many cities experienced record high daily temperatures, and even 30+ consecutive days of triple digit heat. Heat related deaths and illnesses skyrocketed. What was once considered a “worst case scenario” has become the new normal. The alarm bells are ringing, and it is time to trust the science and the data to address this problem. As we look towards solving these issues, it is up to us to become directly involved in the science itself. Right now, we have the unique opportunity to track heat in our own communities. The National Oceanic and Atmospheric Administration (NOAA) Urban Heat Island Mapping campaign will give us a hands-on approach to tackling climate change in our own backyard.

As global temperatures continue to rise, we can no longer afford to dismiss these heat events as once-in-a-generation, or one-off extremes. We are starting to see the direct effects of climate change, and it is no longer an option to sit back and wait for conditions to worsen. We are now in the driver’s seat of climate change related impacts traveling at a record speed, and it is time for us to pump the brakes nowand address how we got here, and what we can do next. As a scientist studying climate-related impacts of extreme heat on society, I have been focused on researching how heat is impacting us and how we can prevent these conditions from worsening in the future.  As one of my colleagues put it, “This is not your grandfather’s climate”. What we used to consider problems for the future in terms of climate change have become immediately dire concerns. If we don’t take action now, these issues will only be magnified.

While extreme heat has dominated recent headlines, not everyone is aware of its root causes. Some of us may be used to hot summers if we live in areas that typically experience these conditions. But many individuals don’t believe it is any hotter than it has been. Some people ask, “How much of a difference will a few degrees make?”. While it is true that an increase in a few degrees is not immediately noticeable, turning the dial up just a little bit can have long term impacts on our environment and health. Heart disease, respiratory issues, and heat stroke can be directly linked to heat, and can be deadly if not immediately addressed.

In fact, just small differences in temperature can affect communities differently at the city, neighborhood, and street level. This is especially true in urban areas, where building materials and lack of tree cover can increase the risk of air pollution and persistent heat waves. The 2024 NOAA Urban Heat Island Campaign will allow US citizens a free opportunity to track summertime heat in their cities. By partnering with organizations such as universities, residents will be provided with heat sensors that can easily be attached to their personal vehicles and bikes. These heat sensors will record temperature and humidity data throughout their city at different times of the day. Citizens can sign up for one-hour shifts in the early morning, afternoon, or evening based on their convenience. As they drive or bike along pre-prescribed routes, the heat sensors will send data to NOAA that will be directly involved in city mitigation plans, research studies, and public health strategies.

This citizen science campaign has occurred nationwide for the past few years with great success. Cities such as Chicago, Dallas, Raleigh, and Boston have participated in the past to produce maps showing the hotspots of extreme heat in these communities. These projects have helped each city modify their heat plans to identify where citizens are most at risk, and how to prepare them for increased heat in the future. The data residents collect will be used to create maps of urban heat hotspots for each city. Participating in this campaign will allow everyone to mitigate extreme heat in their own backyard.

The community applications for 2024 have closed, but citizens can still keep an eye out for this summer’s campaign. Accepted cities will be contacted around March, when residents will be encouraged to apply. Learn more at <https://www.capastrategies.com/heat-watch>.