

Urban Heat Perceptions and Resilience of Residents of The City of El Paso

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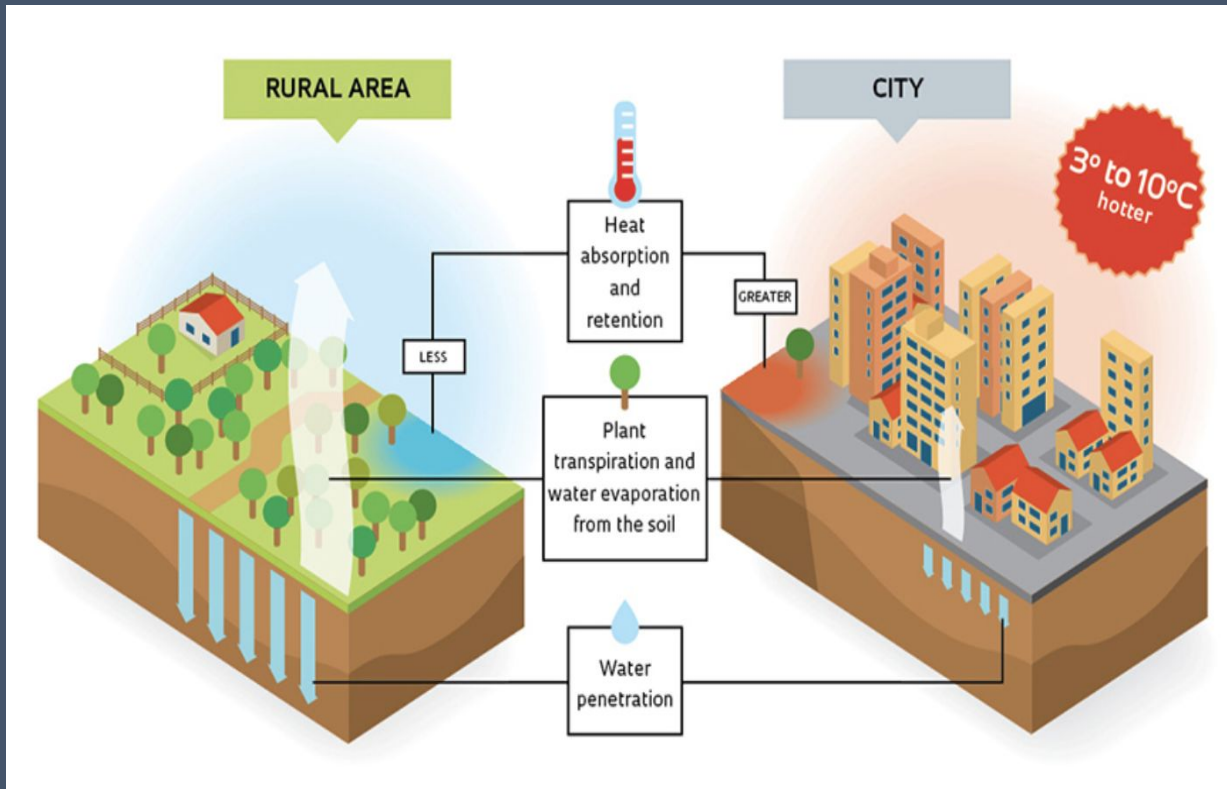
University of Texas at El Paso

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2021 Summer Bridge Symposium



Background



- What are urban heat islands (UHI)?
 - UHI experience higher temperatures consisting of unshared roads and buildings that radiate heat into surrounding air (Understand Urban Heat Islands).
- How does it affect heat coping?
 - There are various methods in which people try to weatherize their homes per their financial setting—leaving low-income communities with inefficient heat coping mechanisms during high temperatures.
- Citizen scientist
 - Research often depends on volunteers, and little is known about their motivations.

Motivation for the Study

- El Paso County community could be susceptible to heat effects.
- Low socioeconomic populations and people of color are at higher risk of suffering from climate change.
- Heat has also been attributed to several health effects.

	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
YEAR	MAY	JUNE	JULY	AUG	SEP	YEAR
2011	0	21	12	16	1	50
2012	1	18	0	9	0	28
2013	0	18	6	2	0	26
2014	1	19	8	1	1	30
2015	0	4	5	8	1	18
2016	0	11	23	4	0	38
2017	0	16	6	0	1	23
2018	4	20	14	8	8	46
2019	0	8	20	19	0	47
2020	3	10	21	20	3	57
2021	0	17				17
TOTAL	56	942	680	269	38	1985
	MAY	JUNE	JULY	AUG	SEP	TOTAL

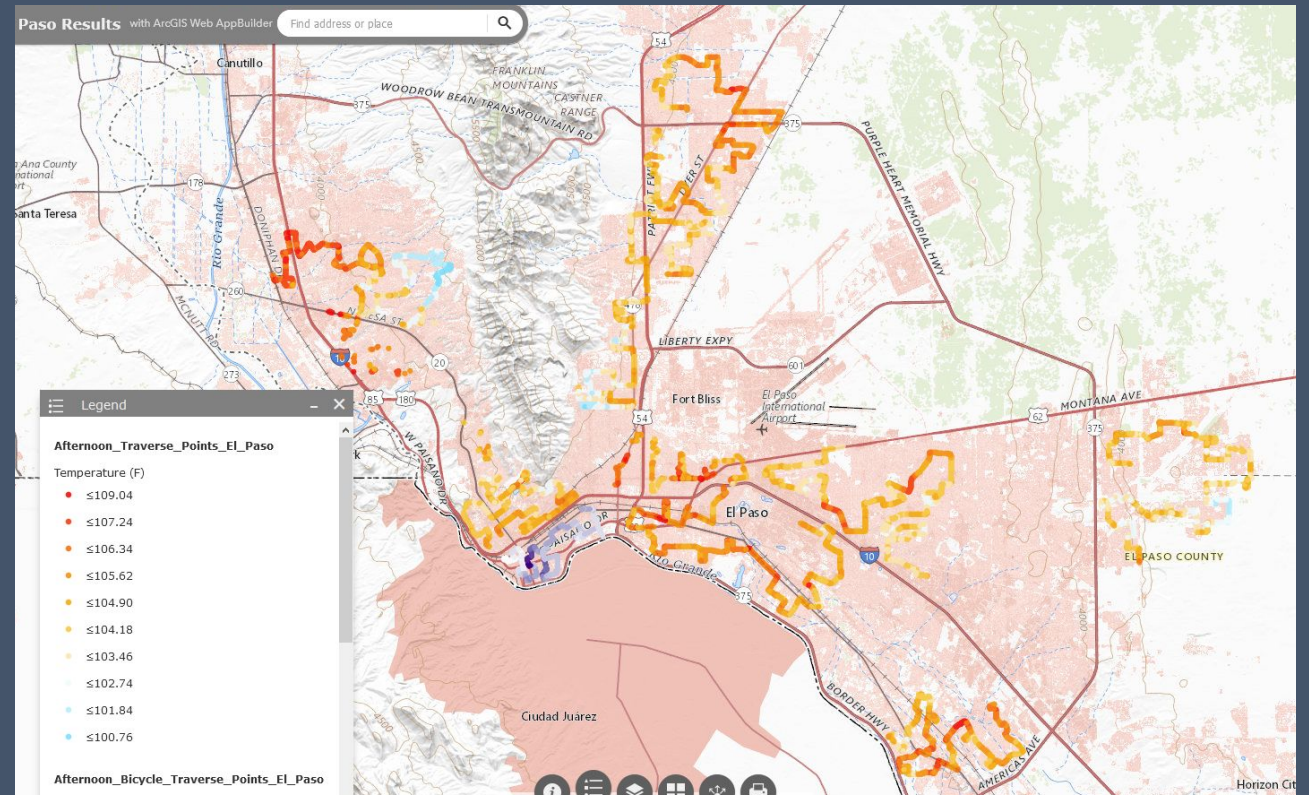
National Weather Service. (2021, July 10). *El paso's 100 degree days FAQ*. National Weather Service. https://www.weather.gov/epz/el Paso_100_degree_page.

AIM: Examine awareness and heat coping of Hispanic/Latino population in El Paso, TX

OBJECTIVES

- Identify urban heat sections
 - Using Urban Heat Island Map from July 2020 and CDC's vulnerability index
- Examine heat coping and citizen science participation
 - Public surveys will be administered to a group of residents.

Urban Heat Island Map of El Paso, TX



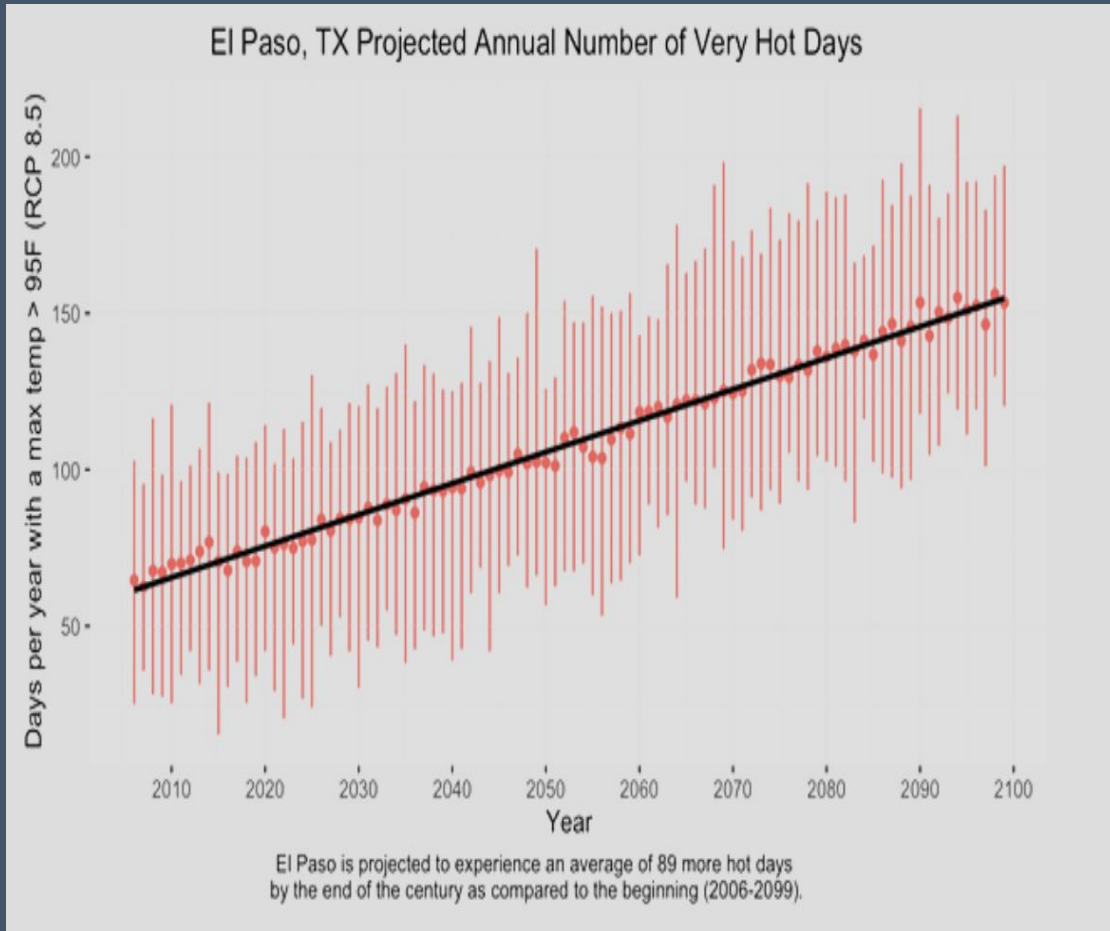
Methods

- Mixed Methods:
 - Mixed methodology approach using survey and open-ended questions.
 - Public surveys will be administered to 150 residents of the City of El Paso.
 - Volunteers of the Urban Heat Island Campaign of July 2020 will be asked questions regarding their participation to identify citizen science motivations.

Survey Questions

- Knowledge
- Perceived vulnerability to heatwaves & global warming
- Practice and resilience
- Outdoor participation
- Social cohesion and willingness to participate
- Energy burden
- Hosing characteristics
- Demographic and economic characteristics

Future of this Study



- Survey distribution (ongoing)
- Completion of survey and data analysis (August)
- Expected completion date September/October 2021
- This research will help us understand the risk caused by high temperatures in the El Paso community.
- Plans: Present results to El Paso city officials and El Paso residents.

Meet the 2021 CAMPAIGN CITIES. NIHHS. (n.d.).

https://nihhis.cpo.noaa.gov/Urban-Heat-Island-Mapping/Campaign-Cities-Detail/udt_7915_param_detail/4041.

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Acknowledgments

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