

## UC Irvine

### UC Irvine Previously Published Works

#### Title

How the Experience of California Wildfires Shapes Twitter Climate Change Framings

#### Permalink

<https://escholarship.org/uc/item/6v4549wb>

#### Authors

Ko, Jessie WY

Ni, Shengquan

Taylor, Alexander K

et al.

#### Publication Date

2023-03-16

#### DOI

10.21203/rs.3.rs-2512292/v1

#### Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at

<https://creativecommons.org/licenses/by/4.0/>

# How the Experience of California Wildfires Shapes Twitter Climate Change Framings

Jessie W. Y. Ko, Shengquan Ni, Alexander K. Taylor, Xiusi Chen, and 8 more

**This is a preprint; it has not been peer reviewed by a journal.**

<https://doi.org/10.21203/rs.3.rs-2512292/v1>

This work is licensed under a CC BY 4.0 License

**Status:** Published



Climatic Change

**Journal Publication**

published 15 Jan, 2024

[Read the published version in \*Climatic Change\* →](#)

**Version 1**

posted 17 Mar, 2023

4

You are reading this latest preprint version

## Abstract

Climate communication scientists search for effective message strategies to engage the ambivalent public in support of climate advocacy. The personal experience of wildfire is expected to render climate change impacts more concretely, pointing to a potential message strategy to engage the public. This study examined Twitter discourse related to climate change during the onset of 20 wildfires in California between years 2017-2021. We content analyzed tweets geographically and temporally proximal to the occurrence of wildfires to discover framings and examined how mean frequencies in climate framings changed before and after fires. Results identified three predominant climate framings: making explicit links between wildfire and climate change, suggesting climate actions, and attributing climate change to adversities besides wildfires. Mean tweet frequencies linking wildfire with climate change and attributing adversities increased significantly after the onset of fire while urging climate action tweets did not. Temporal analysis of tweet frequencies of tweets linking wildfires to climate change showed that discussion increased after the onset of a fire but persisted typically no more than one to two weeks. External real-world events happening simultaneously during wildfires also triggered climate discussions. Our findings contribute to identifying how the personal experience of wildfire shapes Twitter discussion related to climate change, and how these narratives change over time before and after wildfires, leading to insights into critical time points after wildfire for implementing message strategies to increase public engagement on climate change impacts and policy.

climate change wildfire framing Twitter engagement