

UNDERSTANDING NATURAL DISASTERS

WILDFIRES

by Tamme Gagne



BrightPoint Press

BrightPoint Press

© 2025 BrightPoint Press
an imprint of ReferencePoint Press, Inc.
Printed in the United States

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San Diego, CA 92198
www.BrightPointPress.com

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LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA

Name: Gagne, Tammy, author.

Title: Wildfires / by Tammy Gagne.

Description: San Diego, CA: ReferencePoint Press, Inc., 2025 | Series: Understanding

Natural Disasters | Audience: Grade 7 to 9 | Includes bibliographical references and index.

Identifiers: ISBN: 9781678208745 (hardcover) | ISBN: 9781678208752 (eBook)

The complete Library of Congress record is available at www.loc.gov.

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AT A GLANCE

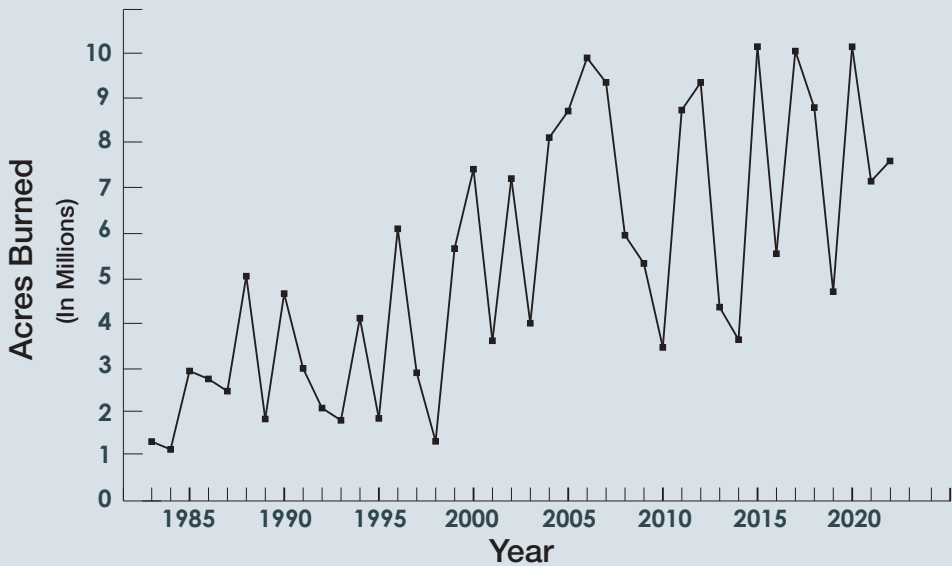
- Wildfires can start almost anywhere in the world at any time. But they are most common in summer when the weather is hot, dry, and windy.
- People are responsible for starting almost 90 percent of wildfires. Campfires are among the most common causes.
- California faces the highest risk of wildfire among all the mainland US states.
- Land, air, and water quality can all suffer due to wildfires.
- As the Arctic has warmed, the area has seen more wildfires. This has led to a cycle of thawing land, rising temperatures, and more wildfires.

WHAT ARE WILDFIRES?

Wildfires can start nearly anywhere. They may sweep across forests, grasslands, or shrublands. They can happen in almost any part of the world. Wildfires even happen in the Arctic. Temperatures in the Arctic have been rising in recent decades. Higher temperatures create ideal conditions for wildfires. An increase of just 3.6°F (2°C) raises the risk

Dry grass is especially prone to burning. Trimming dry grass can help prevent fire from climbing trees and buildings.

ACRES BURNED BY WILDFIRES ANNUALLY



*2004 fires and acres do not include state lands for North Carolina.

Source: “Total Wildland Fires and Acres (1983–2022),” National Interagency Fire Center, n.d. www.nifc.gov.

This line graph uses US government data to display the area of US land affected by wildfires each year between 1983 and 2022.

risk. That number was expected to reach 30 percent over the next 2 decades.

California faces the highest risk of all mainland US states. This is largely because of the state’s size and climate. Other states with high risk include Texas, Florida,

and many western states. These include Arizona, Colorado, Idaho, and Montana. Nevada, New Mexico, Utah, and Wyoming are also on the list.

Some people are more at risk to wildfires than others. People of color are more likely than white people to live in areas most prone to wildfires. People in rural areas cannot always afford to move to regions with lower risk. Many of these people farm. Their job may require them to

The 2023 Wildfires in Hawaii

Wildfires aren't just a problem for the mainland United States. Some of the deadliest wildfires in history happened in Hawaii in 2023. The fires ravaged the island of Maui. Dozens of people were killed. Thousands of homes and other buildings were destroyed.



A 2020 wildfire in California made the sky near the fire look orange.

work outdoors when air quality is bad due to wildfires.

A 2019 study by Boise State University collected data about wildfires and US residents. Professor Mojtaba Sadegh worked on the study. He explained that the climate was different when many people moved to areas now at high risk. He said, “These people didn’t realize how dramatically wildfire dynamics would change during their lifetimes.”⁴

GLOSSARY

debris

scattered wreckage

evacuated

forced to leave an area for safety reasons

extinguish

to stop from burning

fire retardant

a chemical that discourages the spread of fire

flammable

easily ignited or burned

flourish

to grow well

ignite

to set on fire

sediment

grainy material deposited by water

soil erosion

the wearing away of the upper layer of soil

SOURCE NOTES

INTRODUCTION: WHERE THERE'S SMOKE

1. Quoted in Kyler Zeleny and Leyland Cecco, “‘Fighting a Losing Battle’: Waves of Wildfires Leave Canada’s Volunteer Firefighters Drained,” *The Guardian*, July 19, 2023. www.theguardian.com.

CHAPTER ONE: WHAT ARE WILDFIRES?

2. Lorrie Colburn and Michel Martin, “SoCal Wildfire Victim Tells Her Story,” *All Things Considered*, December 9, 2017. www.npr.org.

3. Quoted in Ben Markus and Veronica Penney, “How Humans Start Most of Colorado’s Wildfires—And Get Away with It,” *CPR News*, November 11, 2021. www.cpr.org.

4. Quoted in Daniel Cusick, “US Wildfires Threaten More People than Ever,” *Scientific American*, July 10, 2023. www.scientificamerican.com.

CHAPTER TWO: THE EFFECTS OF WILDFIRES

5. Quoted in Pam Strayer, “‘There Are No Safe Levels of Pollution’: An Interview with Wildfire Researcher Sam Heft-Neal,” *The Guardian*, August 7, 2022. www.theguardian.com.

6. Quoted in Theresa Machemer, “Climate Change Linked to Increase in Arctic Lightning Strikes,” *Smithsonian Magazine*, April 9, 2021. www.smithsonianmag.com.

CHAPTER THREE: DEFENDING AGAINST WILDFIRES

7. Quoted in John Wilkens, “Planes Dropping Colorful Chemicals Helped Squelch This Fire. But There’s a Cost,” *The San Diego Union-Tribune*, September 12, 2020. www.sandiegouniontribune.com.

8. Tom Bayles, “Controlled Burns in Florida Now Make Out-of-Control Blazes Less Likely Later,” *WLRN*, October 11, 2023. www.wlrn.org.

FOR FURTHER RESEARCH

BOOKS

Sue Bradford Edwards, *Droughts*. San Diego, CA:
BrightPoint Press, 2025.

Janie Havemeyer, *Wildfire Survival Stories*. Parker, CO:
The Child's World, 2024.

Kris Erickson Rowley, *Quick Guide to Insurance*. San Diego, CA:
BrightPoint Press, 2025.

INTERNET SOURCES

"Wildfires," *Ready Kids*, December 14, 2022. www.ready.gov.

"Wildfires: How They Form, and Why They're so Dangerous,"
National Geographic, October 19, 2023.
www.education.nationalgeographic.org.

"Wildland Fire Facts: There Must Be All Three," *National Park Service*,
October 19, 2023. www.nps.gov.

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