

# PROJECT PHOENIX

## END-OF-YEAR REPORT 2023

Our pilot season was a tremendous success, thanks to the hard work of our incredible team of community scientists and the support of our wonderful partners.

Thank you for your enthusiasm and dedication this year. Our research would not be possible without you!

### AT A GLANCE

From August 1st to October 31st, our volunteers monitored birds across California to help us learn more about how wildfire smoke impacts bird behavior and species distributions.



# Our Volunteers

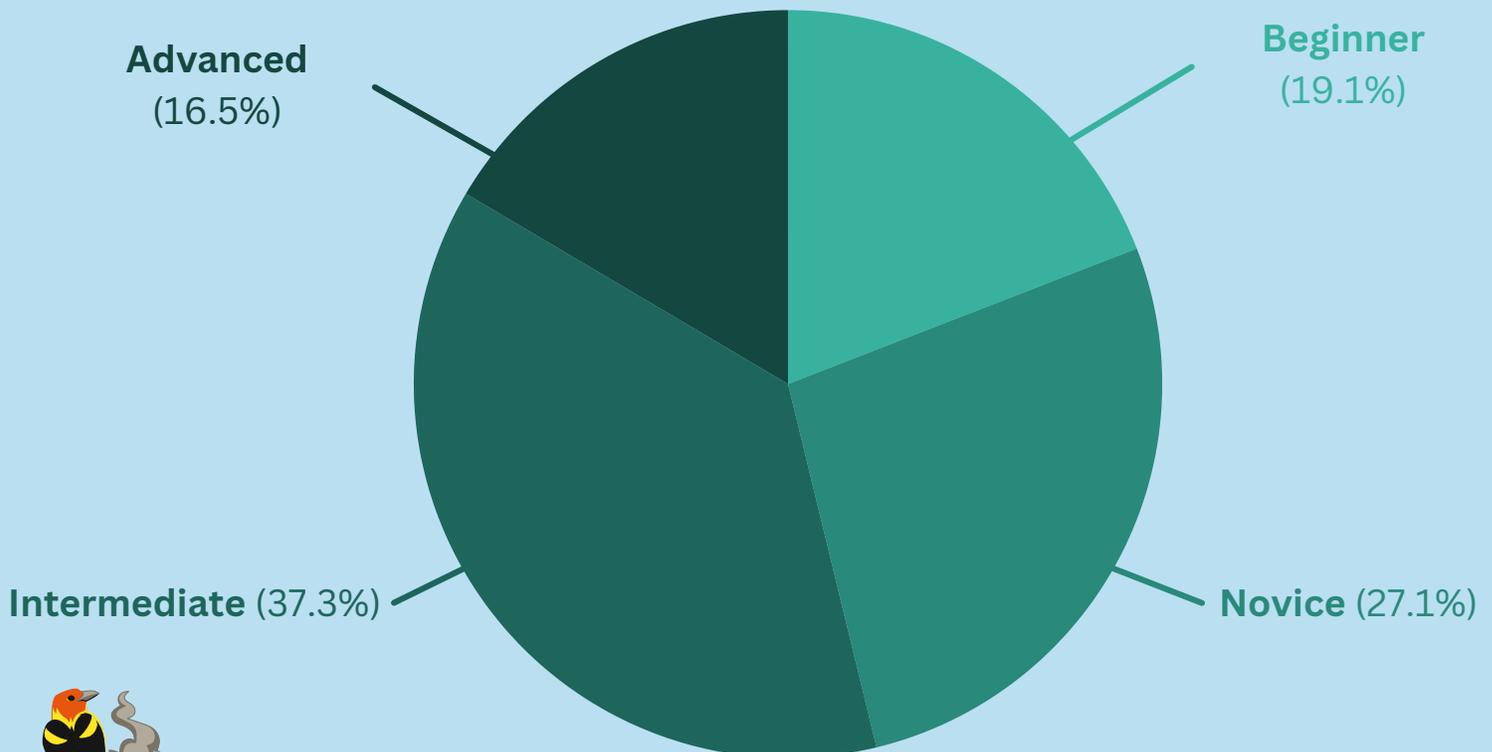
## Top 8 Volunteer Motivations

1. My concern for the environment and protecting nature
2. Fascination with birds and/or an interest in the environment
3. Connecting to nature
4. Learning about the environment, nature, and/or birds
5. The chance to contribute to science
6. Broad interest in community science
7. My internal drive
8. For the mental health benefits

## Top 12 Species Observed

1. House Finch
2. American Crow
3. Allen's Hummingbird
4. Anna's Hummingbird
5. Mourning Dove
6. Lesser Goldfinch
7. Black Phoebe
8. California Towhee
9. California Scrub-Jay
10. House Sparrow
11. Dark-eyed Junco
12. Bewick's Wren

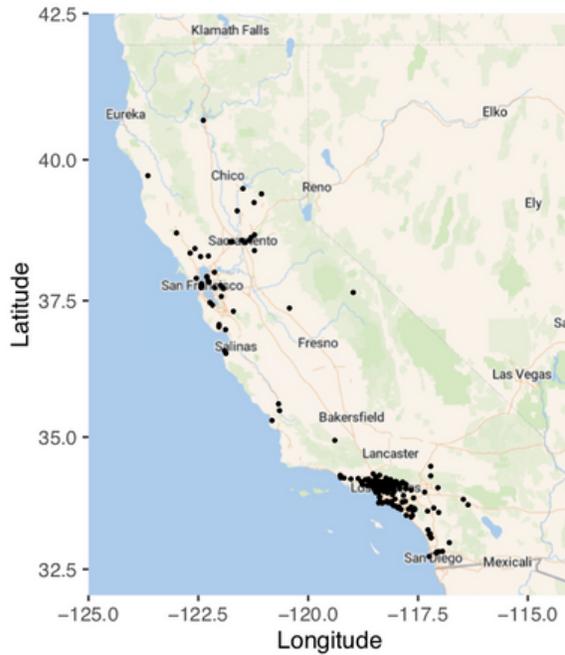
## Volunteer Birding Ability



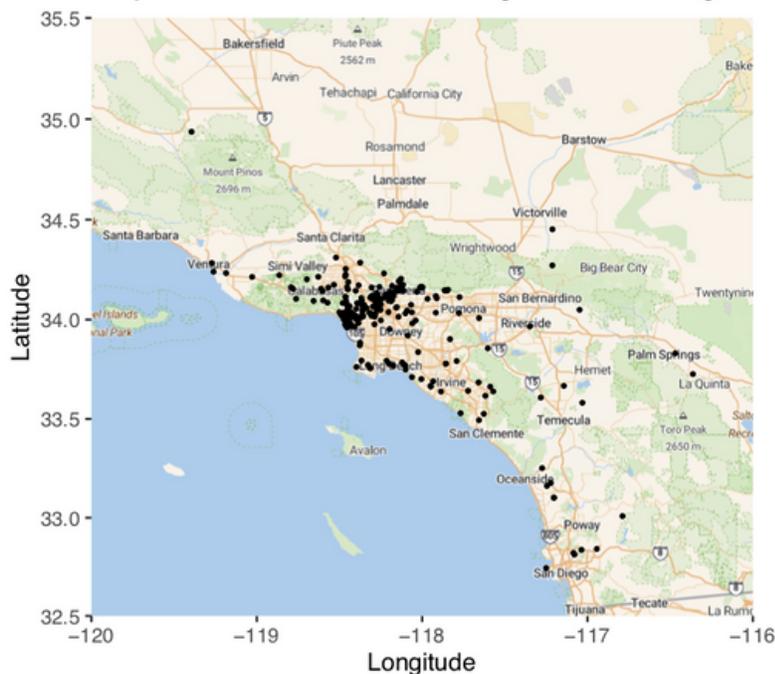
# Our Monitoring Sites

In 2023, volunteers monitored birds at 320 sites across California. While most of our volunteers were based in Southern California, our roster includes community scientists from 175 zip codes!

Project Phoenix 2023 Monitoring Sites: A Statewide Map

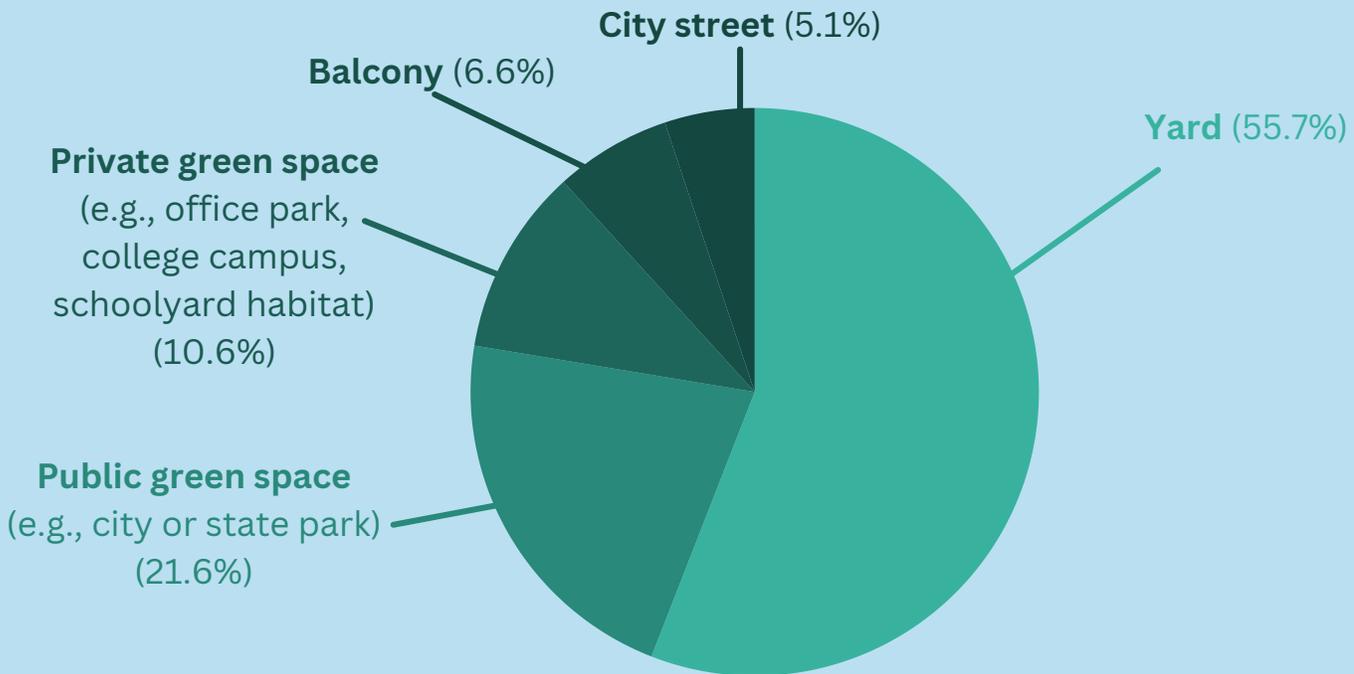


Project Phoenix 2023 Monitoring Sites: Zooming in on SoCal



# Site Characteristics

Most of our volunteers monitored birds in their own yards or balconies, but many monitored birds in a public green space (such as a city or state park) or a private green space (such as an office park).



## Sites With Feeders and Baths

Our team will investigate if birds were more likely to be detected at sites with bird feeders, hummingbird feeders, and/or bird baths when it is smoky. Our goal is to determine if providing these resources to birds when air quality is hazardous could be a simple intervention to help safeguard birds in smokier summers.

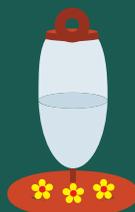
**28.5%**

had seed or suet feeders



**30.7%**

had hummingbird feeders



**30.7%**

had bird baths

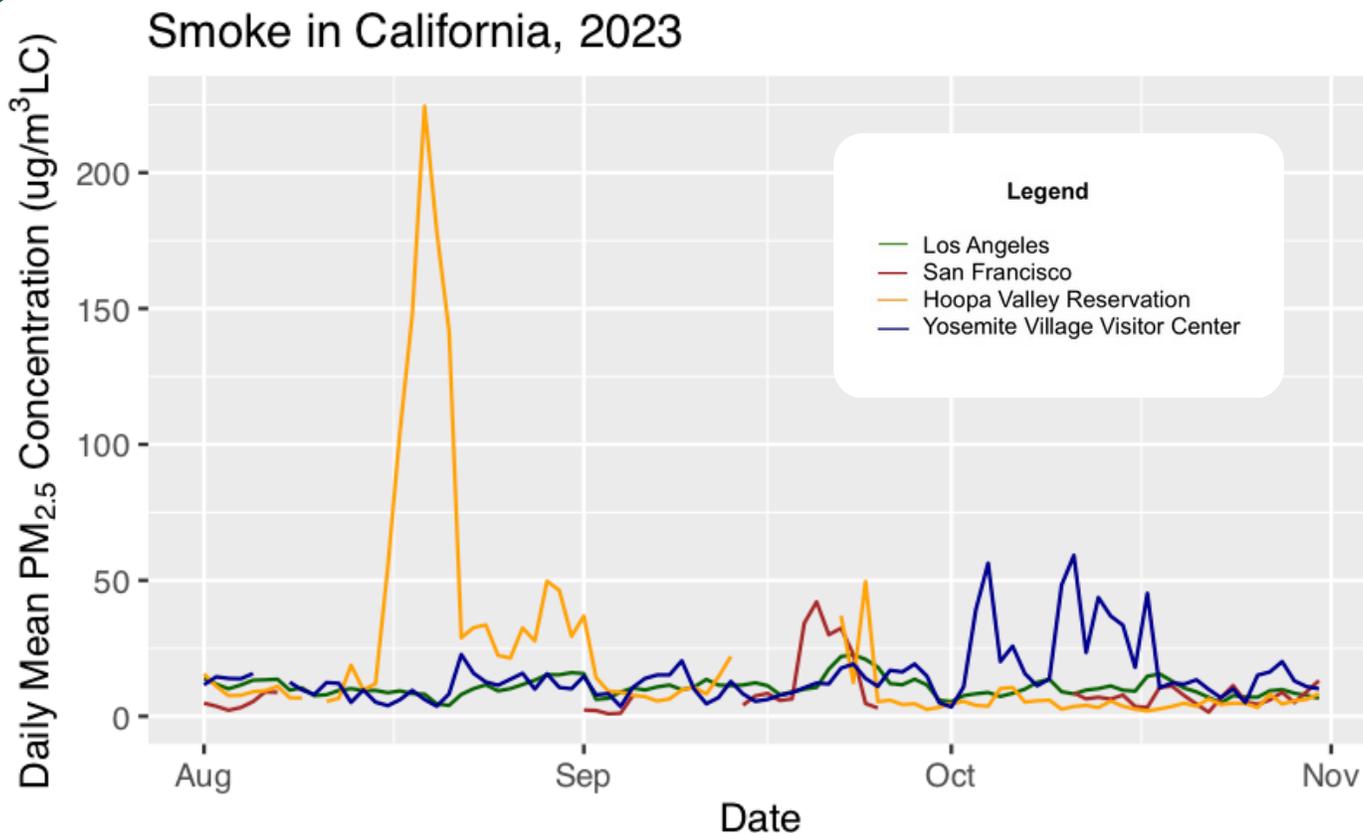


# Smoke in California

Wildfire activity in California was lower in 2023 compared to recent years. This year, only 323,025 acres burned in wildland fires compared to the 5-year average of 1,722,059 acres. However, where fires occurred, they had a significant impact on communities and wildlife, including four fatalities.

Most of our volunteers were based in major metropolitan areas that were largely spared from smoke pollution in 2023. Yet, many communities in northern California repeatedly experienced smoke impacts on air quality.

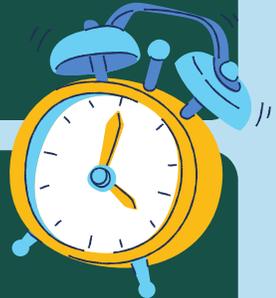
Although this year offered a reprieve from smoke for many Californians, millions of Americans from coast to coast did experience hazardous air quality. Next year's smoke forecast is highly uncertain. To increase our odds of monitoring bird communities impacted by smoke, **we will be expanding Project Phoenix to include Oregon and Washington in 2024.**



# Survey Design: FAQ

## It wasn't smoky at my monitoring site this year. Is my data still useful?

Yes! To understand how smoke affects birds, we need to collect data on bird observations in a wide range of air quality conditions. If your site did not experience smoke this year, your observations provide a snapshot of bird activity when air quality is good. This is incredibly valuable baseline data!



## What can we learn in 10 minutes?

Some volunteers have wondered if 10-minute surveys are sufficient to learn more about smoke impacts on birds. Great question! Although it feels short, 10 minutes provides an *excellent* snapshot of bird activity at a specific place and time. Alone, a single survey does not tell us much, but together, our observations will provide a powerful tool to learn more about how bird activity is influenced by daily changes in air quality.

Our survey protocol has already been tested in the field – our program director, Dr. Olivia Sanderfoot, led a study as part of her Ph.D. that leveraged 10-minute surveys to learn more about how birds were affected by changes in human activity during COVID-19 lockdowns! Read more in [\*Scientific Reports\*](#).

## Do we have enough volunteers?

Absolutely – our superstar team of 300+ volunteers (and counting!) will provide critical observations of birds during the fire season and help us answer our research questions. We are already off to a terrific start!



# Stay tuned for Project Phoenix 2024!

**Thank you to all our volunteers and partners  
for helping Project Phoenix take flight!**

Thanks to your dedication and support, our pilot season was wildly successful, and we're already looking forward to next year's programming. Next year, we'll be expanding to Washington and Oregon and starting data collection in July. Look for an email from us next spring on how to get involved in Project Phoenix 2024!

In the meantime, please connect with us anytime to share your thoughts, ideas, or even a cool bird observation. We look forward to hearing from you.

**Happy Birding!**

