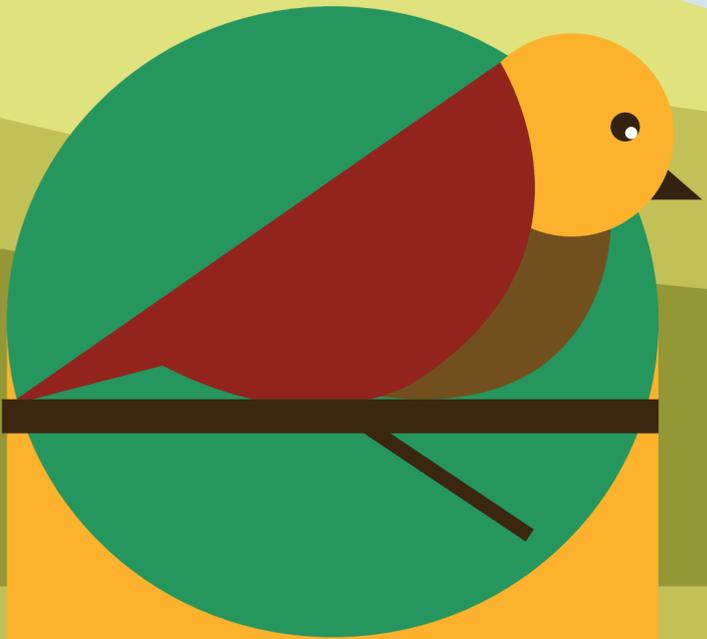# Monitoring Birds During COVID-19 Lockdowns

From April 1 to June 30, 2020, volunteers monitored birds in the Pacific Northwest to help us learn more about the impact of COVID-19 lockdowns on bird communities.

7,216 Checklists

479 Sites

404 Observers

1,200+ Hours

193 Species

Did You Know?

Community science is the collection and analysis of data relating to the natural world by members of the general public, typically as part of a collaborative project with professional scientists.

Top 10 Species Observed

American Crow
Dark-eyed Junco
Black-capped Chickadee
American Robin
House Finch
Anna's Hummingbird
Song Sparrow
Spotted Towhee
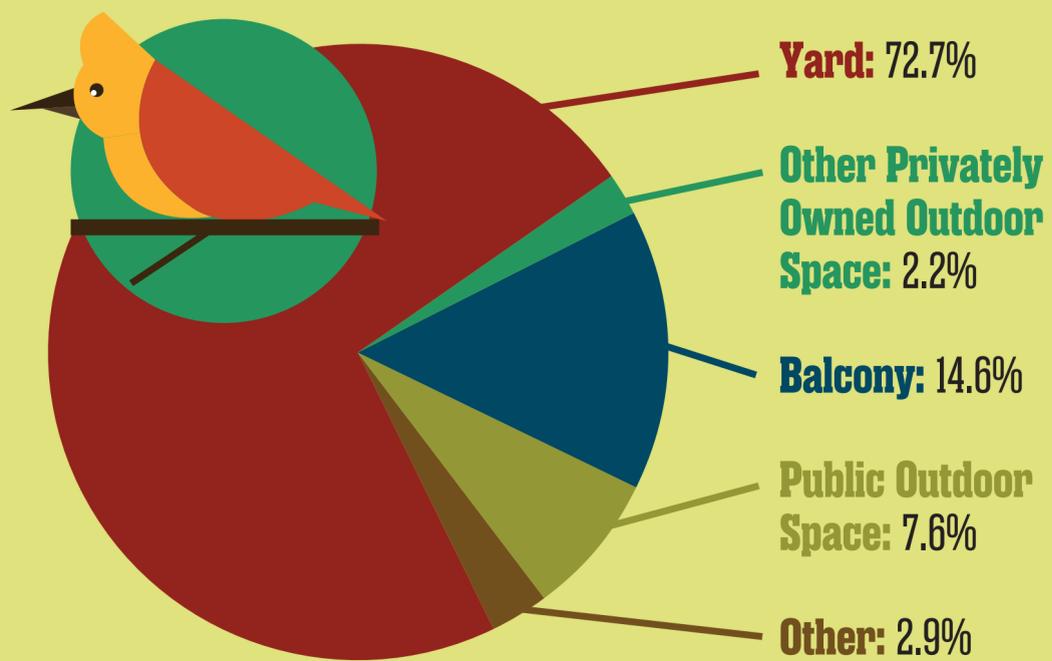**Bewick's Wren**
Northern Flicker

Site Characteristics

Most volunteers were based in Washington and Oregon. We were able to use publicly available data sets and other information provided by volunteers in an online survey to characterize the habitat and resources available to birds at 254 monitoring sites located in these two states.

No Place Like Home

Most of our volunteers monitored birds right in their own backyards, though some chose to take advantage of their balconies for a better vantage point. Fewer than 8% of surveys were conducted on public lands.

- **Yard:** 72.7%
- **Other Privately Owned Outdoor Space:** 2.2%
- **Balcony:** 14.6%
- **Public Outdoor Space:** 7.6%
- **Other:** 2.9%

Sites With Feeders & Baths

More than half of surveys were conducted with a bird feeder in view. Our team will investigate if birds were more likely to be present at sites with bird feeders, hummingbird feeders, and bird baths and determine which species were attracted to these resources.
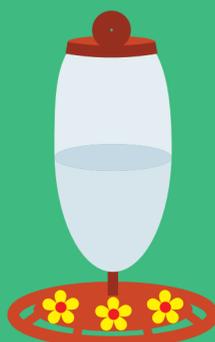
56.8%
OF SITES HAD BIRD FEEDERS

42.5%
OF SITES HAD HUMMINGBIRD FEEDERS
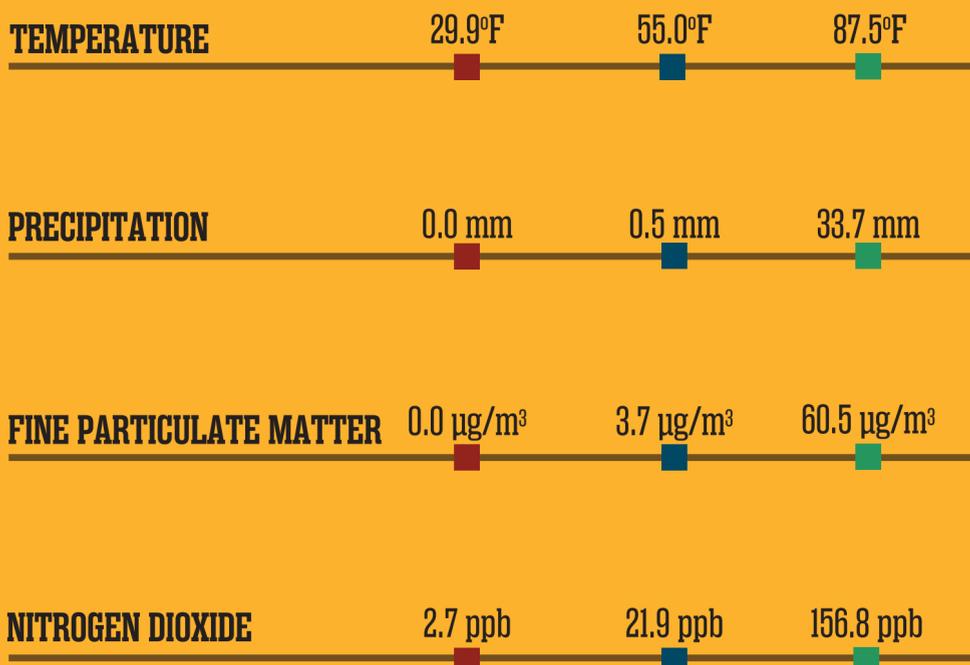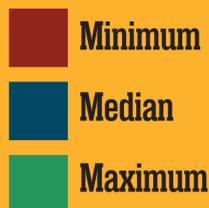
46.1%
OF SITES HAD BIRD BATHS

Birding Conditions

Weather and air quality may impact bird behavior and affect if and how we observe birds. With this in mind, we plan to investigate how temperature, precipitation, and concentrations of two common air pollutants influenced detection of birds last spring.

Rain or shine, our volunteers were out monitoring birds last spring. While air pollution rarely exceeded health-based standards at monitoring sites on survey days, our team hopes to use the data volunteers collected to investigate how even small changes in air quality may impact birds.

■ Minimum
■ Median
■ Maximum

	Minimum	Median	Maximum
TEMPERATURE	29.9°F	55.0°F	87.5°F
PRECIPITATION	0.0 mm	0.5 mm	33.7 mm
FINE PARTICULATE MATTER	0.0 µg/m³	3.7 µg/m³	60.5 µg/m³
NITROGEN DIOXIDE	2.7 ppb	21.9 ppb	156.8 ppb

Top 10 Reasons
Volunteers Signed Up for This Project

1. My fascination with birds and/or an interest in the environment
2. My concern for the environment and protecting nature
3. Learning about nature, the environment, and/or birds
4. Connecting to nature
5. For fun and enjoyment
6. The chance to contribute to science
7. My internal drive
8. My broad interest in community science
9. For the mental health benefits
10. Participating in a COVID-19 study
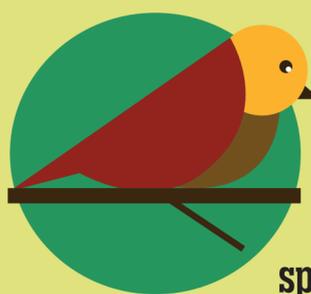
The Anthropause

In late March 2020, several governors announced stay-at-home orders to mitigate the spread of COVID-19. These lockdowns led to rapid declines in traffic, human mobility, and noise pollution — an event now known as the "Anthropause." Our volunteers jumped into action in early April, and thanks to their extraordinary efforts we now have a unique opportunity to learn more about birds and how our ability to detect them may have changed during this unprecedented moment in human history.

Percentage Change in Traffic Over Time

% CHANGE

Early March | Mid March | Late March | Mid April | Late April | Mid May | Late May