

How the Pandemic Lockdown Changed the Wild Animal Landscape

At one point during the COVID-19 pandemic in 2020, more than half the world's population, or 4.4 billion people, was under lockdown orders. Yet, wild animals never got the message and many took advantage of this new reality of lack of outdoor human activity.

Analysis by [Dr. Karen Shaw Becker](#)

STORY AT-A-GLANCE

- While billions of people across the globe were in pandemic lockdown in 2020, triggering an "anthropause," wild animals took advantage of the lack of human activity
- Examples: Cougars were spotted prowling the suburbs of Santiago, Chile, golden jackals were seen out and about during daylight hours in Tel Aviv, and dolphins made an appearance in the once-busy harbor of Trieste, Italy
- Researchers with the COVID-19 Bio-Logging Initiative analyzed a database of over 2,300 individual tracked mammals, including cougars, bears, deer, giraffes, and elephants, and confirmed that humans moving in the environment directly influence animal movements and behavior

Not many of us have fond memories of this time in our recent past, but at one point in 2020, more than half the world's population (4.4 billion people) was locked down thanks to the near universal mishandling by government officials of the COVID-19 pandemic response.

This period has been dubbed the **anthropause**, and describes "a considerable global slowing of modern human activities, notably travel."¹ Many normally very busy urban hubs went dark as restaurants, shops and schools were shuttered. In due course, people began to report sightings of animals in places you wouldn't expect to find them.

According to The Conversation, "cougars were seen prowling through the suburbs of Santiago, Chile, golden jackals became more active during the day in Tel Aviv, Israel, and dolphins appeared in the normally busy harbor of Trieste, Italy."²

This phenomenon gave birth to the **COVID-19 Bio-Logging Initiative**, a group of animal movement researchers who wanted to learn more about how humans influence the behavior of wildlife. Some of the researchers involved in the project were already studying animals before the pandemic, using bio-logging devices such as GPS tags to record their movements. Those devices continued to record information while the research team was locked down.

The Movements of Over 2,300 Mammals Were Tracked

Among the project's researchers was Robert Patchett, a Postdoctoral Research Fellow at the University of St. Andrews in Scotland.

*"We were interested in finding out how animal movements might have changed when human activities were restricted," writes Patchett in *The Conversation*. "Were the animals really altering their behaviour because human mobility had changed, or was it that people had more time to notice animals in these apparently unusual places? The initiative includes several projects tackling this question from different angles, with our first findings now published,"³ in the journal **Science**.⁴*

The international team of 174 scientists, led by Marlee Tucker, an ecologist from Radboud University in the Netherlands, set out to determine whether the behaviour of large land mammals changed during the pandemic. They used a database of over 2,300 individual tracked mammals across 43 species, including cougars, bears, deer, giraffes, and elephants, and compared their behavior and movement patterns during the 2020 lockdowns to the same period a year earlier.

"Animal movements can be influenced both by human mobility — people and vehicles moving in the landscape — and the built environment," writes Patchett. "It is normally impossible to distinguish these two effects because they are closely matched with each other, but the lockdown provided a chance for us to do this."

Animals Ventured Longer Distances and Closer to Roads

The research team found that mammals ventured 36% closer to roads during the lockdown. In addition, their movement distances over 10 days were 73% farther. The researchers logically surmised that the animals wandered closer to roads due to reduced traffic and explored new areas due to the absence of humans.

In fact, one team found that cougars — naturally secretive animals that typically avoid areas where humans are prevalent — ventured much closer in 2020 to well-populated areas of Santa Cruz, CA than in previous years.⁵

"Our results were quite variable across species, which may be a result of lockdown policies varying between countries, but it could also be related to other factors, such as differences between species in their ability to change behaviour," Patchett writes. "Perhaps some species are more flexible in how they respond to changes in human activities."

"These findings are important as they tell us that humans moving in the environment directly influence animal movements and behaviour, in addition to the effects of the built environment. With this knowledge we can start to think of new ways to change our behaviour that will positively impact wildlife. For example, we could adjust traffic flows in areas important for animal movement — in some national parks you can only drive during the day to avoid disturbing animals at night."

The COVID-19 Bio-Logging Initiative is ongoing, with similar investigations into birds of prey and marine life. Patchett believes "the information gained from this research gives us the opportunity to think of new approaches to improve human-wildlife coexistence, and there is no time to lose."

For those of you who are interested, in the video below, a discussion of the biologging project during the COVID lockdown starts at 1:14 and ends at around 12:55.

Sources and References

¹ [Rutz, C. et al. Nature Ecology & Evolution, Volume 4, Pages 1156–1159 \(2020\).](#)

^{2,3} [The Conversation, June 8, 2023](#)

⁴ [Tucker, M.A. et al. Behavioral responses of terrestrial mammals to COVID-19 lockdowns. Science, 8 Jun 2023 Vol 380, Issue 6649, pp. 1059-1064](#)

⁵ [Wilmers, C.C. et al. Current Biology, Volume 31, Issue 17, P3952-3955.e3, September 13, 2021](#)
