

Researchers find lockdowns create global appetite for feeding feathered friends

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A team of researchers have highlighted the role that the COVID-19 pandemic played in connecting people around the world more with our feathered friends while in lockdowns, finding a surge in interest for bird



feeding information and providing more insight into global human-birds interactions. The findings "COVID-related surge in global wild bird feeding: Implications for biodiversity and human-nature interaction," have been published in *PLOS ONE*.

Professor Emeritus Darryl Jones, from Griffith's Center for Planetary Health and Food Security, and the research team used Google search index (a valid proxy parameter from Google Trends data) and found a surge of interest in bird feeding in 115 countries after COVID-19 led to lockdowns where people stayed home.

Professor Jones, alongside lead author Associate Professor Jackie Doremus from California Polytechnic State University and Dr. Liqing Li from Texas A&M University, investigated two interdependent questions:

- Was there evidence of increased interest in bird feeding and related topics at a global scale after COVID-19 lockdowns, relative to before?
- And is species richness correlated with the level of interest in bird feeding?

"We know from other work that interests in common bird species and bird feeding increased in response to COVID in the U.S. and some European countries during the COVID-19 pandemic," Professor Jones said.

"This study first tests whether this pattern—increased interest in bird feeding in response to COVID-19 lockdowns—holds true for all countries, including those in the Southern Hemisphere.

"If so, COVID-19 lockdowns offered a way to reveal the global extent of bird feeding interest, something that is poorly understood.



"Our results asserted that bird feeding was occurring at a global scale; large increases in Google search intensity after lockdowns occurred in 115 countries that had sufficient search volumes.

"To the best of our knowledge, this is the first paper to measure people's interest in bird feeding at a global scale."

The authors analyzed whether there was increased interest in bird feeding and wild birds at a global, individual-country scale during and after COVID-19 lockdowns compared with before. They also examined whether the level of interest in bird feeding in a country is linked to species richness.

The authors assessed the weekly frequency of search terms like "bird feeder," "bird food," and "bird bath" on Google for all countries with sufficient search volumes from January 1, 2019 to May 31, 2020 to see if an increase in bird searches occurred during each country's specific lockdown period (generally around February-April 2020).

They also accessed nation-level bird species data from BirdLife International to measure <u>species richness</u>.

For a period of 52 weeks prior to lockdowns, the team found that the search intensity was, on average, similar to what it was in the week preceding lockdowns.

After about two weeks of lockdowns, a dramatic increase in bird feeding search intensity was evident. The result mirrored the interest in these topics found in the US, where bird feeding interest is well-documented.

The extensive practice of supplementary bird feeding around the world as documented in this study has broad implications for avian communities and their migratory patterns.



Professor Jones said that while providing supplementary food for wild birds could be beneficial for them in terms of survival during periods of resource scarcity and improved health, there was also evidence to suggest that bird feeding may alter ecological communities and potentially have negative effects on biodiversity.

"If bird feeding is common in other parts of the world, this could impact migration and disease patterns," he said.

"It is imperative that we understand the global extent of bird feeding in order to gain a more comprehensive understanding of its potential impacts on both avian and human well-being at a continental and global scale."

Regarding possible reasons for the increased behavior towards bird feeding during COVID lockdowns, the team suggested it likely related to changes in the relative cost of alternative forms of leisure activities, as well as increases in the benefits from connecting with nature during a stressful time.

"Given the relationship between the practice of bird feeding, human mental health, and a variety of pro-environmental attributes, the implications are of great significance for human well-being and biodiversity conservation," Professor Jones said.

"If access to other nature-based activities was also reduced, this would make bird feeding seem relatively more attractive.

"Moreover, forced time at home during lockdowns may have increased opportunities for people to notice birds in their gardens and may have piqued their interest in bird feeding."

The team suggested future work should further explore bird feeding



patterns in parts of the world with limited formal data collection and increase the cultural and biophysical diversity of settings where local bird feeding is studied.

More information: Doremus J, Li L, Jones D, Covid-related surge in global wild bird feeding: Implications for biodiversity and human-nature interaction, *PLoS ONE* (2023). DOI: 10.1371/journal.pone.0287116, journals.plos.org/plosone/arti ... journal.pone.0287116

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