# Online Appendix

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1. Robustness check facilitating comparison between Google Trends and Project Feeder- Watch analyses

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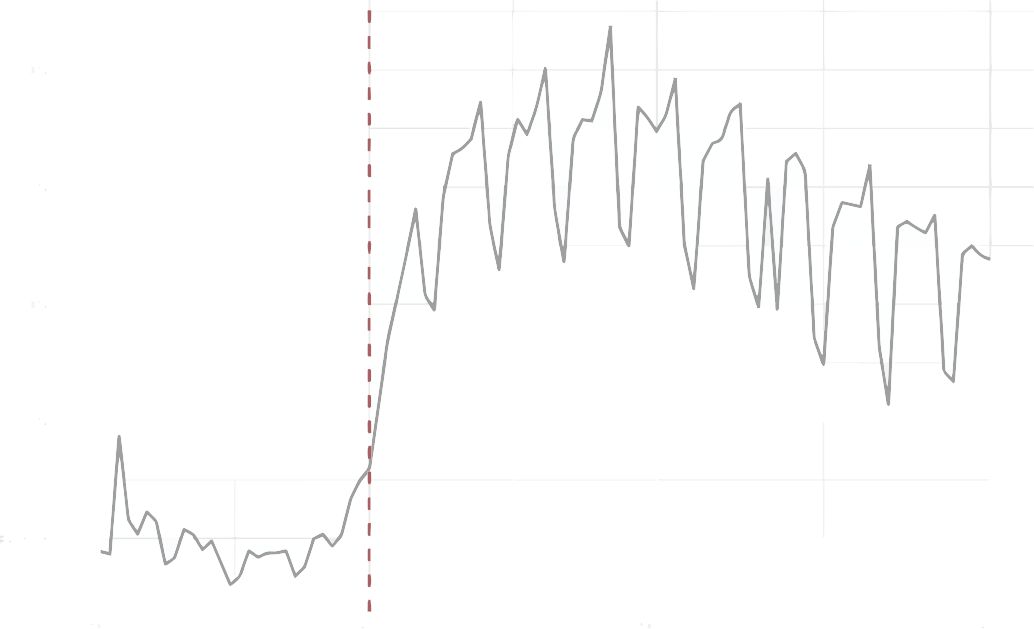
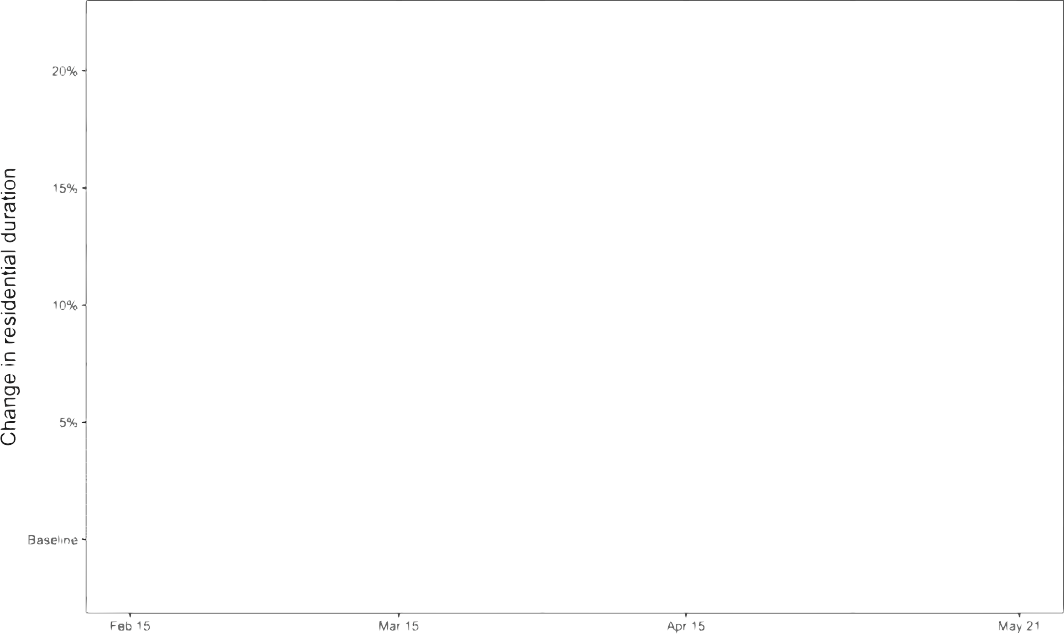
Table A1: Variation in US Response by Local Bird Diversity - Robustness check for Google Trends

post postxSpecies1 postxSpecies2 FE R2 Google Trends (first differenced): N=6,050

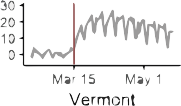
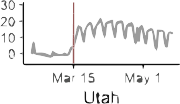
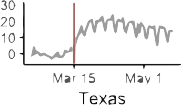
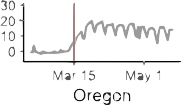
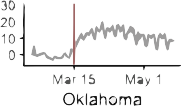
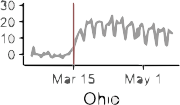
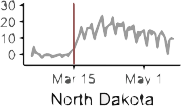
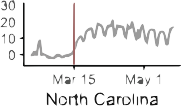
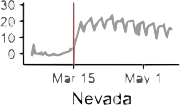
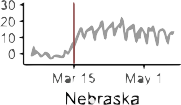
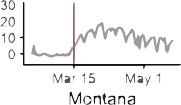
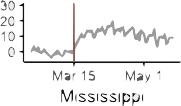
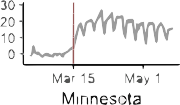
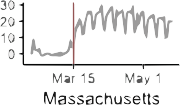
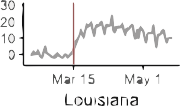
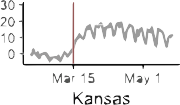
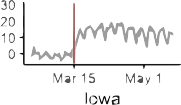
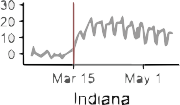
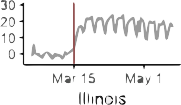
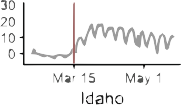
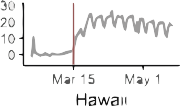
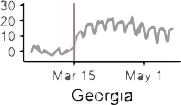
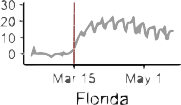
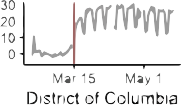
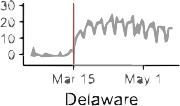
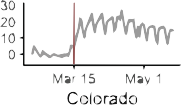
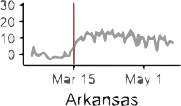
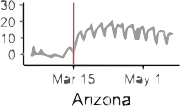
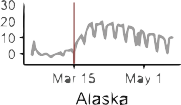
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Feeder | 13.709\*\*\* | (1.379) |  |  |  |  | S+Y | 0.060 |
| Feeder | 12.751\*\*\* | (2.003) | -0.668 | (2.54) | 3.645 | (2.22) | S+Y | 0.066 |
| Seed | 5.168\*\*\* | (0.675) |  |  |  |  | S+Y | 0.029 |
| Seed | 4.984\*\*\* | (1.079) | -0.681 | (1.131) | 0.524 | (1.162) | S+Y | 0.030 |
| Bath | 6.951\*\*\* | (0.720) |  |  |  |  | S+Y | 0.032 |
| Bath | 5.647\*\*\* | (0.948) | 2.035 | (1.612) | 2.473\*\*\* | (0.820) | S+Y | 0.035 |

Notes: Since Project FeederWatch is a winter time citizen science program and only provides data from Nov to the next April annually, we also get matching time frames from Google Trends by dropping non-PFW months as a robustness check. Results are consistent with findings in Table 1 Panel B. *∗p <* 0*.*1; *∗∗p <* 0*.*05; *∗∗∗p <* 0*.*01.

Figure A1: Percentage Change in Time Stayed at Home in the US, National



Notes: Data from Google Community Mobility Reports, created using data from users who turn on Location History: [https://www.google.com/covid19/mobility/.](https://www.google.com/covid19/mobility/) The y-axis shows the average percentage change in the amount of time people stayed at home comparing to a baseline day in the US. The baseline day is the median value from the 5-week period Jan 3 – Feb 6, 2020. We observe the amount of time people spent at home increased dramatically after March 15, 2020.

Figure A2: Percentage Change in Time Stayed at Home in the US, by State

Notes: Data from Google Community Mobility Reports, created using data from users who turn on Location History: [https://www.google.com/covid19/mobility/.](https://www.google.com/covid19/mobility/) The y-axis shows the average percentage change in the amount of time people stayed at home comparing to a baseline day in each state. The baseline day is the median value from the 5-week period Jan 3 – Feb 6, 2020. We observe the amount of time people spent at home increased dramatically after March 15, 2020 for all states.

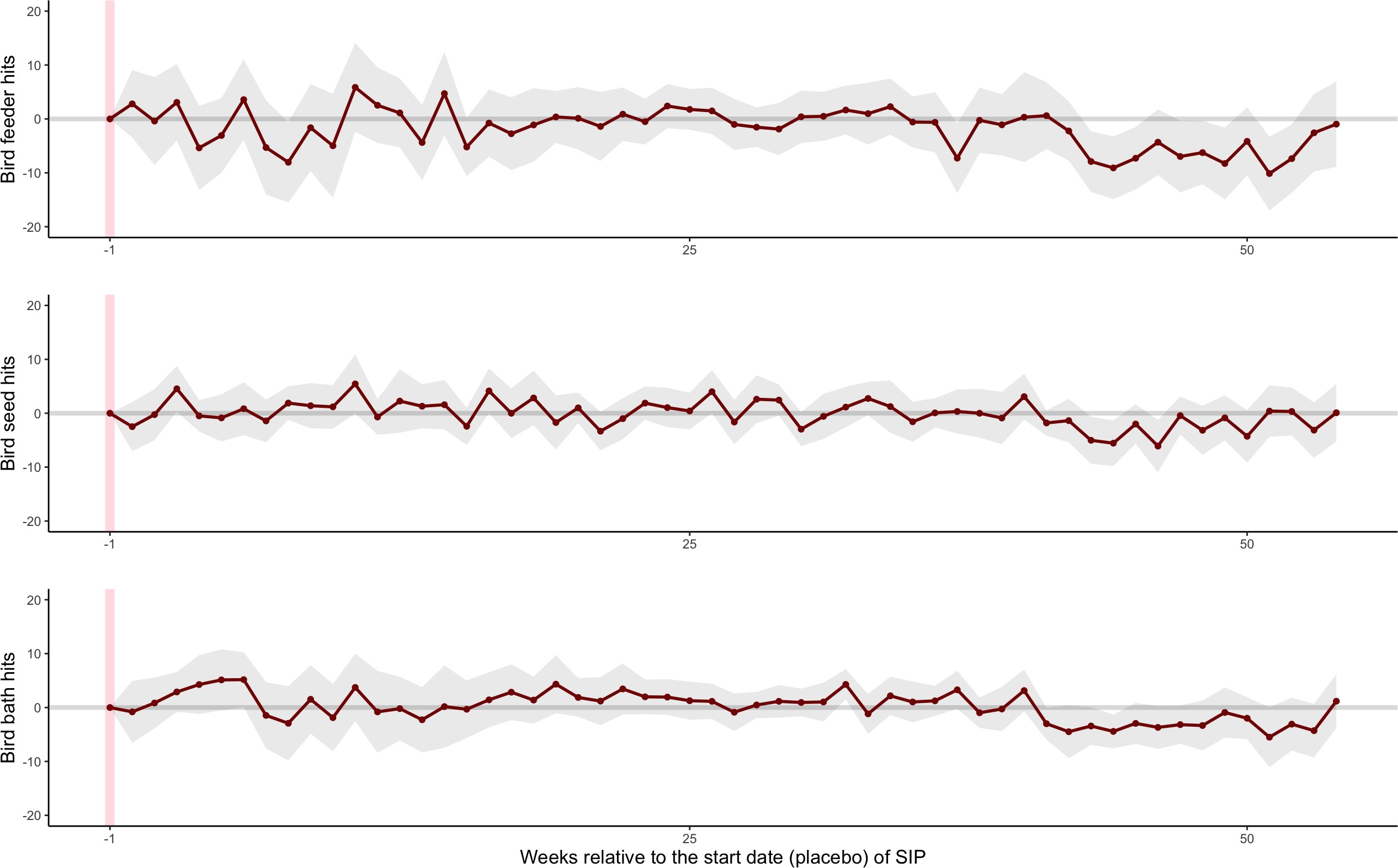


Figure A3: Placebo Test: Dynamic effects using Google Trends data

Notes: This figure presents the results from a placebo test. We assume the lockdown in each state started one year before its actual start date and examine the dynamic effects of lockdown on google search intensity for three search terms. The placebo test results show no significant change of searching for bird feeders, seed, or baths.

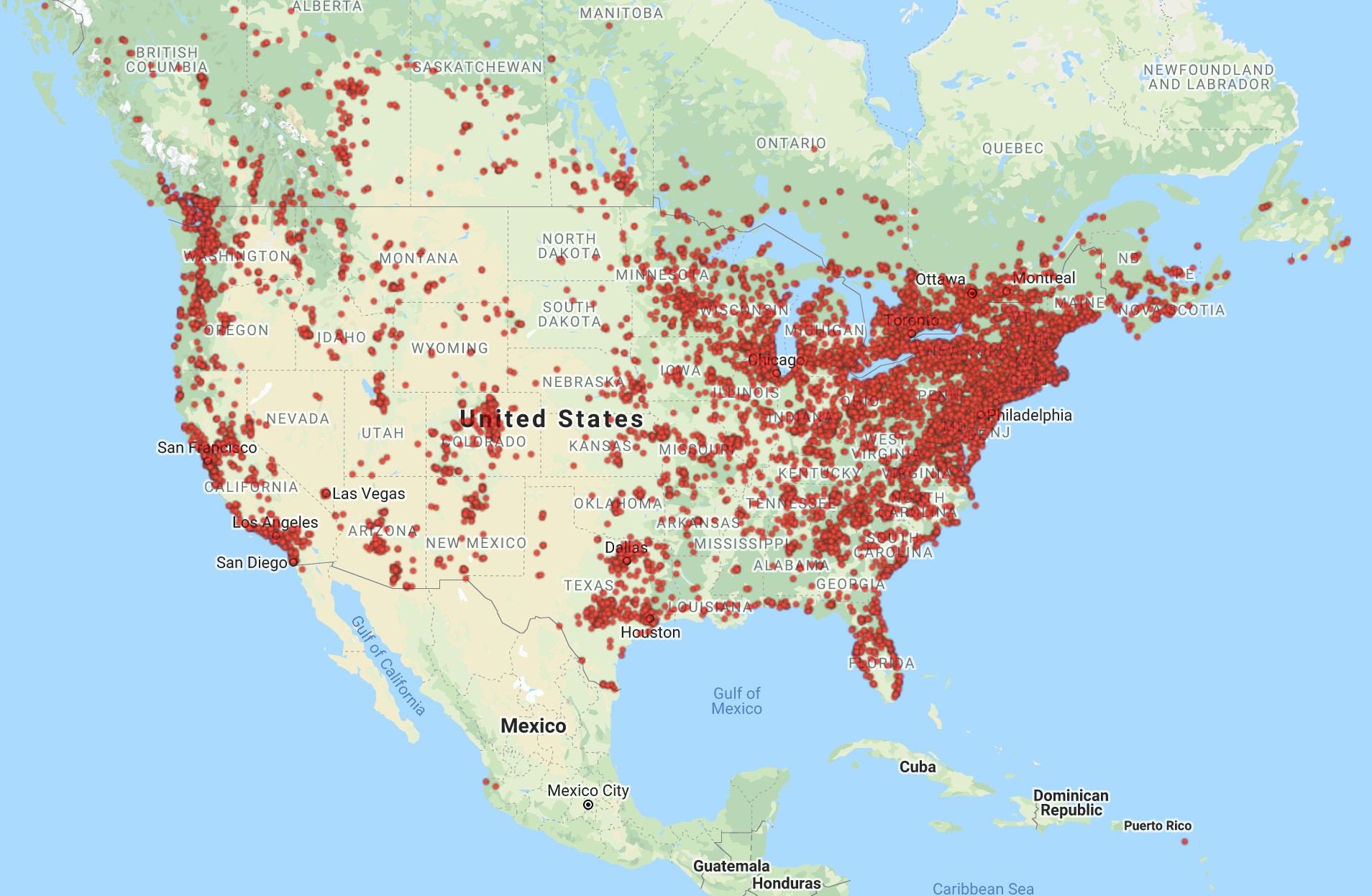


Figure A4: 2019-2020 Feeders from Project FeederWatch

Notes: Map generated on Project FeederWatch website, [https://feederwatch.org/PFWMaps/participants.](https://feederwatch.org/PFWMaps/participants)

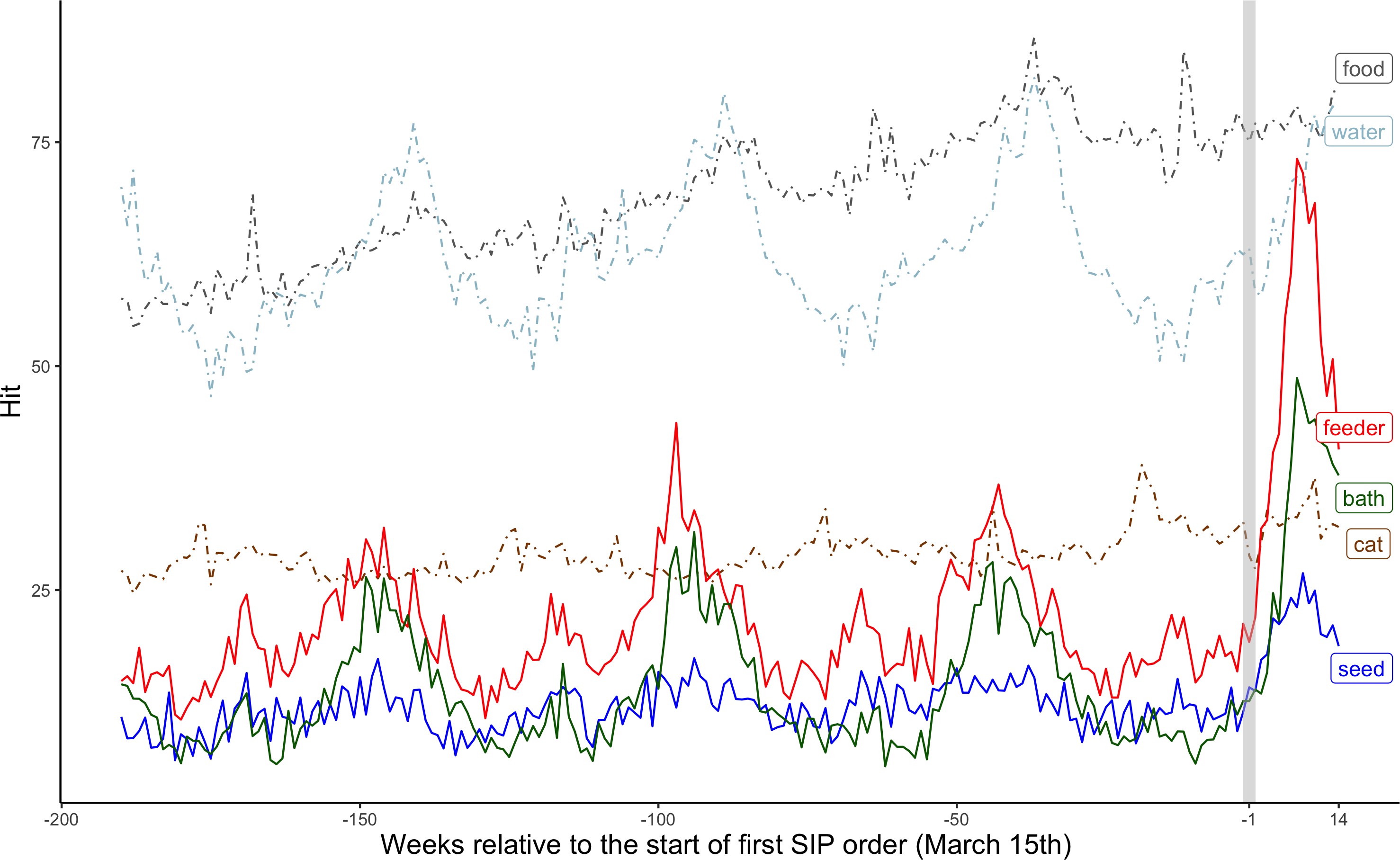


Figure A5: Google Trends Search Intensity for Other Words

Notes: The figure compares the relative search intensity for “Bird feeder”, “Bird bath”, and “Bird seed” with other words (food, cat, dog, water) using data from 2016-2021 from Google Trends.