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DATA PAPER

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Snapshot Europe 2021–2022: The first public dataset from a Europe-wide camera-trap survey of terrestrial vertebrates

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For affiliations refer to page 3

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Abstract
Managing and conserving species in the face of the current biodiversity crisis requires consistent information on the status of wild animal populations across large spatiotemporal scales. Budgetary constraints, differences in national legislation, and the challenges of coordinating logistics transnationally often limit survey efforts to spatial extents that rarely encompass the full distribution of many species, and temporal extents that rarely exceed a few years. These limitations are particularly relevant in regions like Europe, where multiple countries often share and manage populations of the same wild species across national borders and under different legislative frameworks. Cooperation and collaboration can help overcome some of these challenges. Here, we present data from the first 2 years of Snapshot Europe, a collaborative, coordinated, and standardized European-wide mammal survey conducted by camera-trap experts working across the continent.

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Between mid-August and mid-November of 2021 and 2022, more than 160 researchers simultaneously collected camera-trap data at 1198 and 967 locations across 81 and 55 arrays and 22 and 23 countries, respectively, for a total of 90,230 camera-trap days (49,033 and 41,197 in 2021 and 2022, respectively), with 91% of the data collected in September and October. Thirty (28%) out of 106 arrays across the 2 years were sampled both in 2021 and 2022, allowing for comparisons of estimates over time. All data were managed and processed in Wildlife Insights (https://www.wildlifeinsights.org/); each record was reviewed by at least one participant who confirmed or edited the initial classifications provided by the AI model integrated into the platform. The final dataset contains a total of 94,441 observations of 63 species of mammals and 5024 detections of 78 species of birds. These data capture a subsample of the European wildlife community and can be used to explore ecological questions related to drivers of distribution, abundance, and activity across the continent. We envision repeating this effort annually for the foreseeable future. Data for Snapshot Europe 2023, 2024, and 2025 are currently being revised and will be made publicly available soon. Collated, all the annual datasets will enable estimates of trends over time. Additionally, four sister initiatives, Snapshot USA (2019-ongoing), Snapshot Japan (2023-ongoing), Snapshot Brazil and Snapshot Chile (both started in 2025), annually collect data based on the same sampling protocol, enabling a new era of global-scale comparisons. The images associated with the data accompanying this publication are available in Wildlife Insights. The data are available for reuse under CC BY-SA 4.0 licensing. Please cite this data paper when reusing all or part of this dataset.

KEYWORDS

annual surveys, biodiversity, biogeography, birds, camera traps, conservation, Europe, mammals, occupancy, species distributions, transnational monitoring

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data and metadata are available as Supporting Information in Data S1. The data are also available in Edmond—the Open Research Data Repository of the Max Planck Society at https://doi.org/10.17617/3.7YLWMU. The original images used to compile this dataset are available on Wildlife Insights (Snapshot Europe 2021, http://n2t.net/ark:/63614/w12003388; Snapshot Europe 2022, http://n2t.net/ark:/63614/w12004446).

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SUPPORTING INFORMATION

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