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An updated database of common vampire bat (*Desmodus rotundus*) occurrence data for ecological, public health, and epidemiological research

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Introduction: The common vampire bat (*Desmodus rotundus*) is currently one of the most impactful transmissors of rabies throughout Latin America. Despite its importance as a natural reservoir, little is known about the historical distribution of *D. rotundus*. Detailed occurrence data are necessary for the accurate assessment of the ecology and epidemiology of *D. rotundus*, which limits the advancement of ecological, public health, and epidemiological research. As such, a centralized and standardized database of occurrence records is needed to facilitate *D. rotundus* research for rabies management, mitigation, and eventual elimination.
Objective: The goal of this study was to curate a centralized database of *D. rotundus* occurrence data with a standardized format to fill this research need.
Materials and Methods: Occurrence records of *D. rotundus* were collected from a variety of publicly available databases, from a network of natural history museums across Latin America, from official repositories in ministries of agriculture and health, and from published scientific literature. All data were collected in Darwin Core Archive format and were technically validated to identify any potential errors.
Results: This work resulted in a dataset of *D. rotundus* historical occurrence records, including >38,000 locality reports. Most records were reported in Mexico, Colombia, and Peru. Data are available in a public data repository at https://figshare.com/articles/dataset/Desmodus_rotundus_Occurrence_Record_Database/15025296.
Conclusions: Key areas where future locational data for *D. rotundus* should be collected included the Amazonian basin and along the southern extent of current projected ranges. Age data were also missing from many records, indicating that future research should focus on emphasizing the collection of these valuable metadata. These metadata could be used to better understand how rabies affects *D. rotundus* populations and how dispersal of the species impacts the continued spread of rabies. These results should encourage future monitoring of new populations and a re-examination of the species range.

Keywords: Desmodus rotundus, rabies, occurence records, dataset, Darwin core