

# bbsAsssistant: A package for downloading and munging data and information from the North American Breeding Bird Survey

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## Summary

This package contains functions for downloading and munging data from the North American Breeding Bird Survey (BBS) FTP server (Pardieck et al. 2018; J. R. Sauer et al. 2017). Although the FTP server provides a user-friendly interface for retrieving data, this package consolidates the efforts of the data user by automating downloading and decompression of .zip data files, downloading route-level information, and saving them as .feather files for speedy import from disk. Notably, the package contains a web-scraping function for retrieving population trend estimates and data credibility of the results of the BBS hierarchical analyses (J. Sauer et al. 2017).

## References

- Pardieck, KL, DJ Ziolkowski Jr, M Lutmerding, and MAR Hudson. 2018. "North American Breeding Bird Survey Dataset 1966–2017, Version 2017.0." *US Geological Survey, Patuxent Wildlife Research Center, Laurel, Maryland, USA.[online] URL: <https://www.pwrc.usgs.gov/BBS/RawData>.*
- Sauer, John, Daniel Niven, James Hines, David Ziolkowski Jr, Keith L Pardieck, JE Fallon, and William Link. 2017. "The North American Breeding Bird Survey, Results and Analysis 1966-2015."
- Sauer, John R, Keith L Pardieck, David J Ziolkowski Jr, Adam C Smith, Marie-Anne R Hudson, Vicente Rodriguez, Humberto Berlanga, Daniel K Niven, and William A Link. 2017. "The First 50 Years of the North American Breeding Bird Survey." *The Condor: Ornithological Applications* 119 (3): 576–93.