



# Diane Le Bouille

Environmental Sciences,  
Data GIS Specialist

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## Hard Skills

- Programming
  - Python, R, C/C++, Matlab
- GIS
  - ESRI products, Arcpy
  - Spatial stats and optimization
- Database
  - Access, MySQL
- Misc.
  - HTML, CSS, LaTeX
  - Git/GitHub
- (Strenuous) fieldwork experience
  - Handling/Marking vertebrates
  - Plant and animal systematics

## Soft Skills

- Strong organizational capabilities
- Working with diverse audiences
- Effective team and com. skills

## Languages

- English
- French
- Spanish

## About me

My background is in conservation ecology and my research focuses on conservation planning and optimization, using mathematical modeling to develop resource allocation tools and meaningfully support on-the-ground decision making around optimal reserve design. Using my technical strengths as a mean to develop practical solutions to complex problems is the focus of my work.

## Education and Selected Research Experience

- 2022 - 2024 **Postdoctoral Researcher II**  
*Texas Tech University*
  - Developing species distribution models for Texas stream species
  - Designing hierarchical spatial prioritization (Bayesian stats)
  - Coordinating datasets and research products with stakeholders
  - Presenting at professional meetings and agency workgroups
- 2020 - 2022 **Postdoctoral Researcher I**  
*Baylor University*
  - Designed and conducted spatial topology studies in R and ArcGIS
  - Worked on water withdrawal laws and policy with State authorities
  - Led 2 graduate students on extensive literature review to create a dataset of 25,000+ entries on Texas stream flows
- 2014 - 2020 **Ph.D. Student**  
*University of Tennessee*
  - Fitted complex mixed models in R, with spatio-temporal structures
  - Designed and conducted spatial prioritization analyses in Python
  - Analysed a dataset of 36,000+ land transactions
  - Presented primary results at major conferences (4k+ attendees)
  - Worked closely with land trusts, managers and other practitioners
- 2011 - 2012 **M.Sc. - Ecology, Biodiversity, Conservation**  
*University P. and M. Curie*
  - Learned and used advanced spatial and network science stats
  - Designed and used relational databases with Access and MySQL
  - Worked in strenuous field settings, learned GPS collars tracking
  - Participated in toxicology (food safety protocols) and pollution (soil sampling) studies

## Selected Publications

- Pinnschmidt A., Hoogstra M., Fovargue R., **Le Bouille D.**, Fisher M., Harris J., Armsworth P. (2021) *Protecting land leads to increased philanthropic giving to conservation*. Ecological Economics
- Le Bouille D.**, Armsworth P. and Fargione J. (2022) *Spatio-temporal variation in the costs of managing protected areas*. Conservation Science and Practice
- Le Bouille D.** and Armsworth P. (2022) *The cost of buying land for protected areas in the united states*. Biological Conservation
- Hyman A., **Le Bouille D.**, Zhu G. and Armsworth P. (2022) *Disagreements about how to value the future among conservationists lead to conflicting recommendations about where to protect today*. Biological Conservation
- Le Bouille D.** and McManamay R. (2023) *Analysis of flow standards and recommendations in Texas rivers*

## Leadership, Outreach and Team Experience

- Adjunct Lecturer | University of Tennessee, Knoxville** 2022
  - Taught: Landscape Ecology, Models in Biology, Writing Ecological Science
- Vice-President | Baylor Postdoc Association**, 100+ members 2020 - 2022
  - Planned and led all social events + budget planning, developed the website
  - Implemented the cross-departmental updating of the current postdoc list
- Outreach Committee | UTK Graduate Association** 2011 - 2012
  - Head of tabling events, outreach activities (zoos, farmers' market, fairs, etc.)