Dr. Benjamin R. Goldstein
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Education

UC Berkeley	Berkeley, CA, USA	Ecology (Ph.D.) Advisor: Dr. Perry de Valpine	2023
American University	Washington, DC, USA	Environmental Science (BS) Philosophy (BA) Computer science (minor)	2018

Relevant employment

Postdoctoral Researcher, North Carolina State University June 2023 - Present

- Lead the design and implementation of a multi-dataset, continental-scale distribution model for North American mammals

Statistical Consultant, Land Core. November 2021 - May 2023

- Design and implement a statistical model of risk-mitigating agricultural practices to inform insurers using more than 2 million observations of field-level corn yields, environmental conditions, and practices
- Work closely with the Risk Modeling Team to communicate statistical solutions and findings to stakeholders at bi-weekly internal meetings and external meetings

Scientific Aid, California Department of Fish and Wildlife. December 2020 - December 2021

- Design and implement statistical models for inference on wildlife distributions from camera trap data and communicate findings in publication
- Provide technical support for computational tasks related to wildlife monitoring

Publications

- **Goldstein, B. R.**, & de Valpine, P. (2022). Comparing N-mixture models and GLMMs for relative abundance estimation in a citizen science dataset. Scientific Reports, 12(1), 12276. https://doi.org/10.1038/s41598-022-16368-z
- Stoudt, S., **Goldstein, B. R.* (co-first author)**, & de Valpine, P. (2022). Identifying engaging bird species and traits with community science observations. Proceedings of the National Academy of Sciences, 119(16)
- Furnas, B. J., **Goldstein, B. R.**, & Figura, P. J. (2021). Intermediate fire severity diversity promotes richness of forest carnivores in California. Diversity and Distributions, ddi.13374. https://doi.org/10.1111/ddi.13374
- Socolar, Y., **Goldstein, B. R.**, de Valpine, P., & Bowles, T. M. (2021). Biophysical and policy factors predict simplified crop rotations in the US Midwest. Environmental Research Letters, 16(5), 054045. https://doi.org/10.1088/1748-9326/abf9ca
- Geeraert, N., Duprey, N. N., McIlroy, S. E., Thompson, P. D., **Goldstein, B. R.**, LaRoche, C., Kim, K., Raymundo, L. J., & Baker, D. M. (2020). The Anthropogenic Nitrogen Footprint of a Tropical Lagoon: Spatial Variability in Padina sp. δ15N Values1. Pacific Science, 74(1), 19. https://doi.org/10.2984/74.1.2
- LaRoche, C. K., **Goldstein, B. R.**, Cybulski, J. D., Raymundo, L. J., Aoki, L. R., & Kim, K. (2019). Decade of change in Enhalus acoroides seagrass meadows in Guam, Mariana Islands. Marine and Freshwater Research, 70(2), 246. https://doi.org/10.1071/MF18062

Software

- **Goldstein, B. R.**, Turek, D., Ponisio, L. C., & de Valpine, P. (2020). nimbleEcology: Distributions for Ecological Models in nimble (0.3.0) [Computer software]. https://cran.r-project.org/package=nimbleEcology

Fellowships

- National Science Foundation Graduate Research Fellow, 2020-2023

- Data Science for the 21st Century NSF Research Trainee, UC Berkeley 2018-2020
- Fulbright UK Summer Institute Awardee, University of Exeter, 2016

Presentations

- "Inferring species distributions from participatory science data." Wildlife Seminar, University of California, Berkeley, California, USA 2023.
- "Drought impacts on birds in California's Great Valley revealed in eBird data." The Wildlife Society, Spokane, Washington, USA 2022.
- "Identifying engaging bird species and traits with participatory science data." Ecological Society of America, Montreal, Canada 2022.
- "Identifying engaging bird species and traits with participatory science data." International Statistical Ecology Conference, Cape Town, South Africa 2022.
- "Implementing common hierarchical statistical models in R with nimbleEcology." The Wildlife Society, Reno, NV 2019.