

Postdoctoral Research Associate in Molecular Ecology with Professor Tyler Kartzinel
Department of Ecology & Evolutionary Biology, Brown University

Applications are invited for a Postdoctoral Research Associate to investigate species interactions using molecular methods. Research in the Kartzinel Lab addresses major questions in ecology and evolution using complementary approaches (<http://www.kartzinellab.com/>). Of particular interest is the integration of ‘-omics’ approaches from wildlife ecology, ancient DNA, and biomedical sciences. The postdoctoral project will emphasize DNA-based analyses of animal diets and diet-microbiome linkages, often in conjunction with field and lab experiments, animal-movement data, and computational approaches.

A primary goal of our work is to understand trophic interactions, with emphasis on wildlife and conservation. How do food webs respond to environmental variation, and how do ecological dynamics recover from disturbance? We work intensively at Mpala Research Centre in Kenya and Yellowstone National Park in the United States, offering unique opportunities to study communities containing a full complement of wildlife. We also work in other tropical and temperate areas, including ecosystems near Brown University.

Recent publications exemplify the types of questions we are pursuing and methods we seek to combine:

- (1) TR Kartzinel et al. 2019. Covariation of diet and gut microbiome in African megafauna. *PNAS* 116:23588-23593.
- (2) TR Kartzinel et al. 2015. DNA metabarcoding illuminates dietary niche partitioning by large herbivores. *PNAS* 112:8019-8024.
- (3) RM Pringle et al. 2019. Predator-induced collapse of niche structure and coexistence on islands. *Nature* 570:58-64.
- (4) AT Reese et al. 2018. Microbial nitrogen limitation in the mammalian large intestine. *Nature Microbiology* 3:1441-1450.

The successful candidate will develop a project that extends, bridges, or conceptually innovates ongoing work. There is scope to work with existing large data sets, and to collect new data in the lab and field. Unique funding from HHMI is available to support interested candidates in collecting new data to advance the postdoc’s project while also developing evidence of effective teaching. The Department of Ecology & Evolutionary Biology and Institute at Brown for Environment & Society are home to a diverse community of scholars and world-class scientific resources. We seek a curious, creative, and ambitious scientist with broad interests and skill sets to join our highly collaborative team at Brown!

A Ph.D. and relevant experience in molecular ecology and bioinformatics is required. Experience with ancient DNA, DNA metabarcoding, environmental DNA, metagenomics, or microbiomes is desired, but not essential if the candidate’s laboratory background is sufficiently strong. The appointment will be for one year, with the possibility of renewal for up to three years based on satisfactory performance and funding. Salary is competitive and commensurate with experience. Benefits are included. The position is available immediately and will be open until filled; start dates between January and September of 2020 are possible. Applicants should submit a curriculum vitae, a one-page statement of research interests, goals, and experiences, and a cover letter with names and contact information for three references to Tyler Kartzinel (tyler_kartzinel@brown.edu). Preliminary informal inquiries are welcome.

Brown University is committed to fostering a diverse and inclusive academic global community; as an EEO/AA employer, Brown considers applicants for employment without regard to, and does not discriminate on the basis of, gender, race, protected veteran status, disability, or any other legally protected status.