We seek postdoctoral candidates to join an NSF-funded collaborative project with PIs Stephen Ellner and Giles Hooker (Cornell), Peter Adler (Utah State) and Robin Snyder (Case Western Reserve). The project centers on novel ecological applications of fANOVA (functional analysis of variance), a general tool for partitioning outcomes of interest into contributions from different processes and mechanisms. The postdoc will take the lead role in cross-species empirical meta-analyses relating species' life history attributes (e.g., generation time) and functional traits (ref. 5) to two forms of partitioning: (1) partitioning within-population random variation in lifetime reproductive success ("luck"; refs 2,3) into contributions from ages, sizes, life stages, or traits; and (2) exact partitioning of the mean and variance of population growth rate into contributions from different demographic rates and their interactions. Depending on background and interests the postdoc may also contribute to more theoretical components of the project, including coexistence theory for spatially extended systems with localized movements (refs 1,4), interactions between luck and environmental variability, and model selection for best estimating luck and its effects.

Applicants should have a PhD in ecology with a strong quantitative emphasis, or in a quantitative field (mathematics, statistics, physics, etc.) with experience at biological applications. The position is funded for 34 months, starting as early as May 1, 2020. While based primarily at Cornell, the postdoc will participate in weekly PI video conferences and annual in-person PI meetings, and may spend periods of time at Utah or Case for collaboration.

Interested candidates should contact us directly (spe2@cornell.edu), attaching a brief statement of your background and interests and how those relate to our project, and your CV with contact information for 2 persons who could provide letters of reference. Review of applications will begin March 1, with video interviews in late March.