

My dissertation explores the mechanisms driving community and population change under climate change and land use change. The first chapter uses existing data from a network of sites in Costa Rica to model the consequences of forest cover, precipitation, and drought for survival and colonization rates of bird species. The second uses Cornell's NestWatch dataset to demonstrate that negative consequences of temperature spikes on nestlings are exacerbated by agriculture and urban land uses. This proposed project extends the second chapter by exploring the mechanisms that underpin its results and is likely to be my only experimental or field-based chapter.