Oliver & Morecroft, 2014

- This review really highlights the importance of considering interaction effects between climate change and land use change. As we know and as mentioned various times in this paper, predicting these interactions can be extremely complex especially when trying to consider socioeconomic factors. There can be unforeseen changes in our economy that will require us to adapt and respond quickly to any negative changes.
 - Do you think that socioeconomic systems and policy responses can respond quickly enough to address the negative impacts of CC and LUC?
- 2. The introduction acknowledges that although other drivers, such as invasive species, may interact with land use and climate change to impact biodiversity and demographic parameters like birth rate, death rate, and immigration/emigration, this paper focuses only on the interaction between land use and climate change.
 - Would you have included invasive species in this review? How and to what extent might invasive species interact with land use and/or climate change to impact biodiversity?
 - What other drivers besides land use, climate change, and invasive species impact biodiversity? Which drivers do you think are most important in impacting biodiversity and why?
 - Could land-use change and climate change have interactive impacts on other demographic factors, like life expectancy, sex ratio, and age structure?

Williams et al. 2021

- 3. The authors decided to analyze time-series data from 2 databases in this study: The Living Planet Database (LPD) and the BioTIME database.
 - What were some of the benefits of including and analyzing data from both databases in their study? Do you think they should have included more/less?
 - What were some of the drawbacks of each of these databases? What are some of the biases of these databases and how do they impact the results/implications of this study?
- 4. One of the findings in the paper was that populations in agriculture had negative rates of change when hot extremes decreased rapidly, especially if maximum starting temperatures for the climatic position of the population were high. They suggest that this result may have been observed due to individuals moving out of agricultural areas and into surrounding restored areas.
 - Are you in agreement with this explanation? What are some other reasons this result could have been observed?

- Could this finding inform strategies to mitigate anthropogenic impacts on vertebrate populations? Why or why not?
- 5. For the classes of vertebrates studied (mammals, birds, reptiles, and amphibians), what biological traits do you think make them susceptible to population change in the face of parameters included in the study model (climatic position, rate of change in climate, rate of change in surrounding semi-natural habitat, and distance to range edge)?