Barnosky et al. (2012)

1. Last class we stated the calculations could only work for species with discrete generations (like insects). Does this paper work for you since it's at a planetary scale?

2. Fig. 2. looks pretty similar to Noy-Meir's graphs. Does this mean we are rapidly on our way to extinction? And since there is hysteresis, once we crossed the threshold how would that change our perspective on the future of Earth?

3. The last paragraph discusses what we have to change to avoid a global state shift. Do you think it's possible to avoid a global state shift?

4. Interesting how this paper states it would be hard to determine mathematically, but it doesn't cite Noy-Meir or Beisner.

5. "Humans commandeer ~20-40% of global net primary productivity". On top of that we burn fossil fuels to satisfy our energy needs. "The basic problem facing organized society today boils down to determining in some objective manner when we are getting "too much of a good thing." This is a completely new challenge to mankind because, up until now, he has had to be concerned largely with too little rather than too much" (Odum 1969). What should "a right amount of good thing" look like?

Mathias et al. (2020)

1. This is one of the only papers we've read with interdisciplinary approaches (i.e psychology, mathematics, etc.). What are your thoughts on this blend of approaches?

2. What does a "good" or "poor" social state mean?

3. You must pick one figure to describe the entire paper. Which do you choose? Why?

4. How big of a role does social perception of exploitation play on global state shifts?

5. Ecologists often forget about sociological system approaches in their research. Why do you think that is?

6. "Policies have to provide value-based reasons for people to change their expectations, and take into account social norms." Is it time to start prioritizing the environment over ourselves?

7. There is fake (or misleading) news even on environmental issues nowadays (was the Amazon fire news last year an example of *High perception?*). Do you have related experience?