

Advanced Ecology Discussion Questions 10/01

**Brook et al. 2013**

1. Are the terms of response laid out by the authors realistic/reasonable? How pragmatic are these methods? To some degree were the researchers setting themselves up for this conclusion by coming up with parameters that can't be met by nature?
2. Does invoking biodiversity - resilience relationships help or hurt the authors' argument?
3. According to the authors, for a tipping point that would cause widespread change in a short time period to exist, the cause and global responses must be consistent with each other. Because the responses of regional systems differ, a single tipping point cannot be identified. Is this a valid argument?
4. Does it actually matter if we can identify a tipping point if we already have evidence of massive global disruption and change?
5. The authors conclude that the use of global tipping point as a term can "lead to complacency on the 'safe' side of the point and fatalism about catastrophic or irrevocable effects" How do we feel about this? What other way should we think about this if we discard the idea of a tipping point?

**Mac Nally et al. 2014**

1. The authors stated that very few papers met their search criteria- if we have to hunt and cherry pick for data that works, are we chasing an imaginary concept?

2. Can we relate each of the graphs in fig. 2 to the graphs in fig. 1?
3. How do you measure pressure specific response? Can you disentangle responses to different types of pressures? Does it matter?
4. Is it appropriate to disregard papers that claimed stepped change in abiotic attributes without biological response?
5. "Undesirable changes in ecosystems are more likely to be ongoing and nearer monotonic than stark. Stark change seemingly is more provocative and compelling than monotonic change, perhaps because the potential management responses to stark versus monotonic change in many spheres, from environment to finance, are so different." Are environmental changes more gradual relative to the human time scale? If we moved away from the idea of "stark changes" and towards the idea of gradual change, would this affect how environmental change is addressed?