

1. Alan Pounds suggests that anthropogenic climate change has altered environmental conditions to enable the chytrid fungus to effectively eradicate several species of amphibians including the golden toad. However controversy arose because the fungus cannot survive at temperatures above 30 degrees Celsius. What are your thoughts on this controversy? Was climate change really the culprit?

2. Lee Hannah claims that if 30% of global reefs are destroyed, species losses could amount to 300,000-400,000 species. Hannah further provides findings from a study by Wilkinson (2008) that predicts "35% of global reefs are under risk of collapse during the next 20-40 years" (pg. 114).

- a. What do you think of these estimates? Are they higher or lower than you expected?
- b. Keeping in mind that although corals reefs are highly sensitive structures, there has been no documentation of any coral species becoming globally extinct due to climate change. However, population declines can lead to a loss of ecological function in these species. Should policies and conservation tactics be changed to focus more on preventing functional extinction v.s. species extinction?

3. In Chapter 8 (Extinction Risk at High Latitude) an interesting quote is made by the author, "...the very fact that biodiversity is comparably low in high-latitude systems ought to raise awareness of the importance of species assemblages- and of the role of individual species- in ecosystem stability in these fragile biomes" (pg. 134). Many conservation tactics today appear to focus on biodiversity "hotspots" rather than areas of lower biodiversity; the goal being to save as many species as possible. After reading this chapter what are your thoughts on this tactic?

4. In Chapter 8 Lee Hannah identifies various arctic vertebrates that he believes will be the "most susceptible to extinction from climate change" (pg. 123). However, further reading seems to suggest that climate change may not be the driving force behind many of these animals presumed demise. In fact, Hannah clearly points out that hunting and anthropogenic environmental contamination has heavily reduced many of these animal populations. However, it is undeniable that climate change has had/will have a clear affect these animals as well. In your opinion, what "threat" to these species survival requires more urgent attention: Climate change? Or controlling other anthropogenic factors such as hunting and pollution?

5. The arctic fox is considered critically endangered in Fenoscandia after humans largely reduced their numbers, however the IUCN continues to list the Arctic fox as of "least concern" because of its stable global population and relatively high abundance in other locations. What does this say about our current methods of "listing?" Should they be altered? Are regional extinctions still important to focus on if the species exists (perhaps even thrives) elsewhere on Earth?

6. Throughout this section of the book, the author fails to mention any examples of current plant extinctions. Why do you think this may be? Between animals and plants which do you think may be more vulnerable towards extinction?