

1. During the Paleocene – Eocene Thermal Maximum tropical forest regions were up to 10°C higher than present. This suggests that there is no tropical thermostat that limits tropical warming, at least within a range up to 10°C warmer than present. This being the case should we focus our conservation efforts in these locations or should we divert our attention to more vulnerable biomes in respect to the increases in temperature we expect to see?
2. The authors of this chapter state that it is time for immediate action in stabilizing and reversing the global rise in greenhouse gas concentration that is the fundamental problem, among other things. They also say that there is much we do not know about the response of tropical organisms to climate change and there is clear need for greater research in many various topics. Do you think that now is the time for immediate action or should we take the time to learn more about the responses of tropical organisms to climate change before making any conservation decisions?
3. This chapter suggested that regional changes in precipitation may have the greatest impact on the variability of existing tropical forest biomes. Cox et al. (2008) described a mechanism where asymmetric warming of the tropical North Atlantic relative to the tropical South Atlantic causes drought across much of Amazonia and suggested that 2005 – style droughts may occur every other year by 2050. If this is the case are these biomes savable, or worth saving? If we find these biomes unsalvageable should we just reallocate their funds to a more promising conservation goal or project?
4. This chapter states that the interaction between climate change and land use change perhaps represents the greatest threat to tropical forest species. Between these two environmental changes which do you think is more important to address in order to help reduce the amount of extinctions we will see in the coming future? Based on the environmental change you said was more important what conservation practices would you employ to fix the problem?
5. Malhi et al. (2008) states that “most models underestimate current Amazonian rainfall and most do not incorporate the climatic feedbacks from forest loss. Therefore, a more careful evaluation of model ability to capture key elements of Amazonian climate variability is needed.” This being the case, can these models still be used and be helpful to us as conservation biologists? What can be done to lower the risk or severity of future droughts?