

Boucher-Lalonde (2012)

1. What makes their model different than previous models and research? They state in the introduction that “climate has been recognized as the most obvious potential determinant of species distributions”. So what’s the point of this study?
2. While reading the 4 potential hypotheses, what were your original predictions of what hypothesis would be right (Figure1)?
3. They reject the “tolerance hypothesis” which they imply Grinnell and Hutchinson may favor. After our discussion last class, what were your thoughts on this? Did anything in this study make you think “wait a minute”?
4. We discussed this a little bit last class, but are we satisfied with how and where their data came from? If they conducted their own species survey would it make their model better or more accurate?
5. They define niche as species dependent and not all suitable climates. Are we okay with that? Did anyone who considered niche independent to species change their opinion?
6. Their model supported the “peak suitability” hypothesis which accounts for 82% of variation. Are we satisfied with getting B-? Is nature simple and we are complicating it?
7. The introduction lists numerous factors that can affect species distributions. Which of those would you be interested in testing to see if the model could go from 82% to 95%?
8. What is their explanation for the suitable habitat areas that surround the species distribution?

Chase and Myers (2011)

1. A several times they mention the evolutionary causes/processes are out of the scope of their paper. Can you look at niche/community population without considering evolution?
2. Explain “MacArthur’s Paradox”. Was it resolved?
3. Now the debate of stochastic vs deterministic remains. What are your thoughts?
4. The equation for beta-diversity ( $\beta = \gamma / \alpha$ ) which seems like a simple equation was talked fairly in depth for the better part of two pages (2354-2356). Was this an over-kill?

5. This paper is centered around the biotic factors regarding niche. Was Boucher-Lalonde wrong?