Speciation and Extinction Questions

Selwood et al. (2014):

Question 1:
This paper conducted multiple intensive literature searches. One of the products of these comprehensive searches is Figure 4, which shows the mean effect sizes of landscape condition parameters compared to plants and animal demographics and the mean absolute effect sizes of climate parameters on these plant and animal demographics.

- ➔ Is there a significant variability in the number of data points (N) across the many categories in this figure?
- ➔ If your group concludes there is significant variability, how does this affect our acceptance of these conclusions? (*Specifically, for those with low numbers of data points*).

Question 2:
The results section reveals where most studies conducted between 1970 - and 2012 on climate and landscape conditions occurred and on what animal groups these studies evaluated.

- ➔ Where did these studies primarily come from? (*Geographic continents*)
- ➔ What were the most studied animal groups? (*They list two taxonomic classes*)
- ➔ How does this information relate to our class goals? *(What about your group's taxa?)*

Hamilton et al. (2019):

Question 1:
This study considers both climate changes and land use changes on the the future habitat, and the quality of that habitat, which could be utilized by Blanding's Turtle.

- ➔ Which change (*climate or land use*) do the authors suggest is a stronger determinant of future suitable habitat for Blanding's Turtle?
- ➔ Do you agree with their conclusion?

Question 2:
Interestingly, much of the calculated suitable areas for Blanding's Turtle are not areas where the turtle currently lives.

- ➔ Why do the authors suggest that many areas (*especially those in North Wisconsin*) are suitable habitat for the turtle but are not presently occupied?
- ➔ What challenges to movement to these habitat areas do the author's discuss, and what are some of the solutions to these challenges?

Question 3:
The paper frames an argument that the Blanding's Turtle is in dire need of better management in the state of Wisconsin if it is to survive anthropogenic land use and climate change. However, the paper does not comment much at all on the important of Blanding's Turtle (*in any context - ecologically, commercially, etc.*).

- ➔ Are you satisfied with the author's call to action to protect this species without providing a significant discussion about this species' importance?
- ➔ With limited time, money, and interest, how do professionals balance what species are worth protecting?