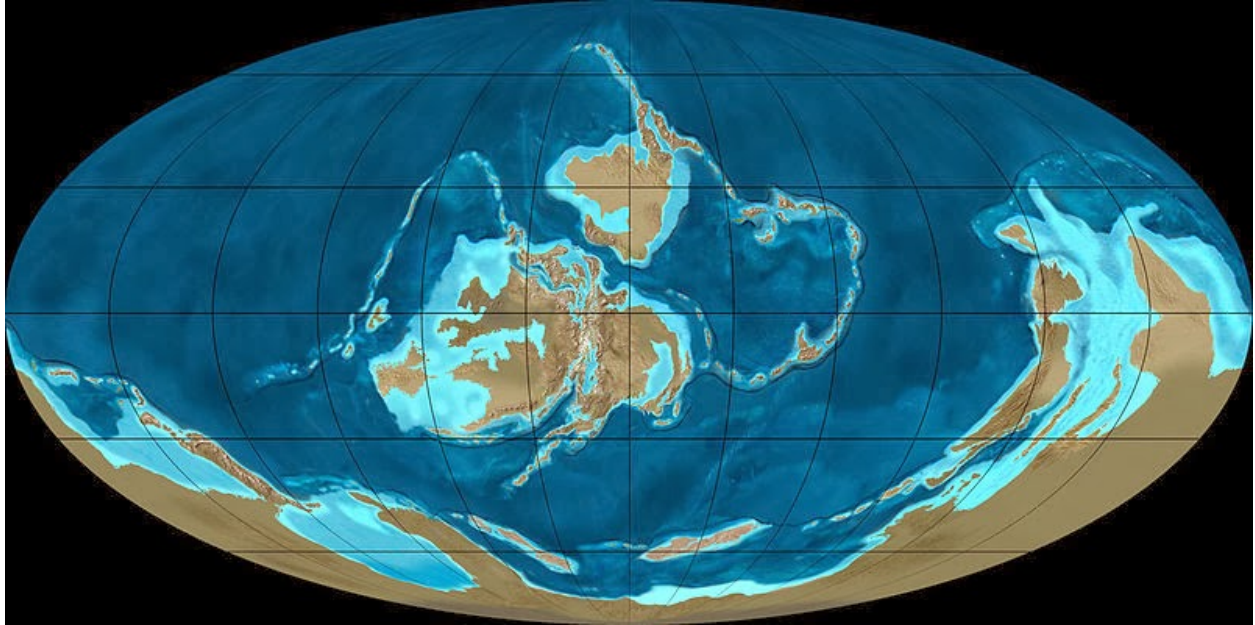


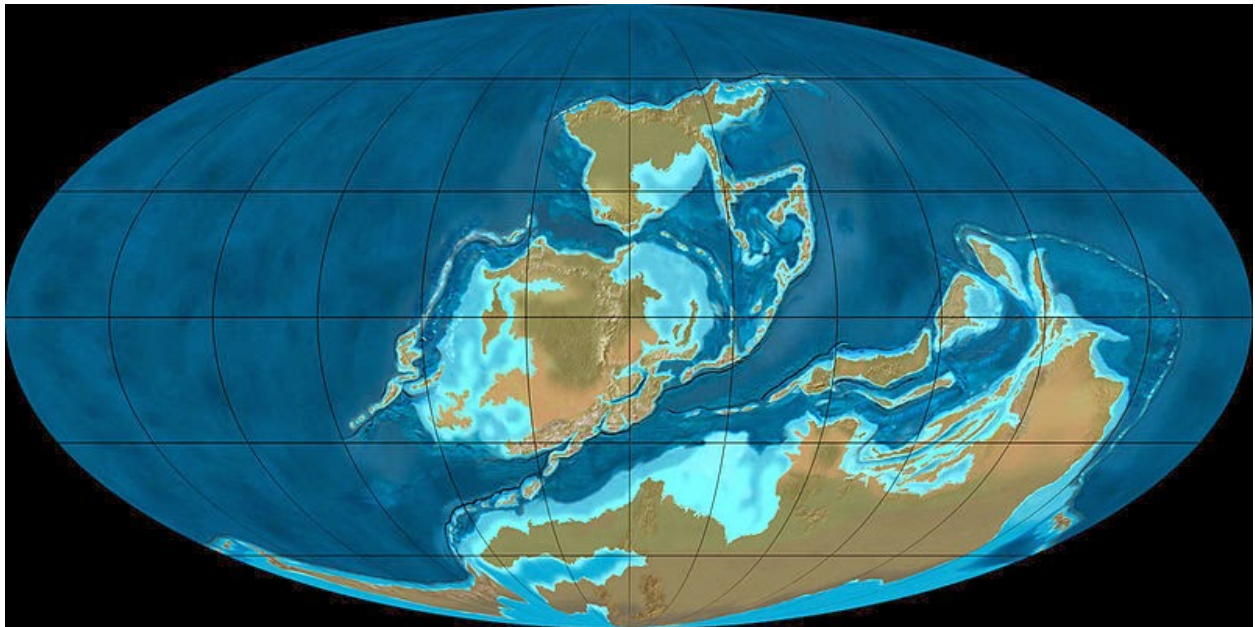
Stigall:

1. What do you notice about the movement of the plates that might have caused a reduction in endemism and biodiversity comparing the two periods' geography below?

Silurian Period (pre Devonian) :



Devonian Period:



2. Do you think the analysis of the extinction in the Middle to Late Devonian Period can be used to analyse the current extinctions occurring? Why or why not?
3. Why is the percentage of speciation by vicariance so high in modern fauna as opposed to dispersal, in spite of modern dispersal of various exotic species via human trade?

4. What does this article imply about the impact of invasive species? Do you think past rates of invasion are comparable to human initiated invasions?
5. Are terrestrial species necessarily more vulnerable to extinction than marine species due to their geographic isolations or would you say both are equally vulnerable? Explain.

Hewitt:

1. What does this article indicate about the importance of mountain ranges as barriers, and do you think it still holds up to modern times?
2. How do you think modern climate change and melting of ice caps is changing the limits of species ranges near mountain ranges?
3. Why would genetic diversity be less in species that expanded from Northern ice sheets, despite being so widespread and long established?
4. The end of this paper discusses the fact that human genetic variation may not be as wide as we may have once thought, why could this be?
5. Do you think that the climate oscillation we are experiencing, ie global warming, is a natural process, and are the species that we have deemed invasive simply responding to the change in climate?
6. Can you explain the 3 possible paradigms represented by the broad colonization patterns of Europe by the grasshopper, hedgehog, and bear (Figure 2)?

Reily and Wake:

1. Why would plate tectonics affect such a small species that is described as preferring 'microhabitats' and therefore is unlikely to travel too far, like the Black Salamander?
2. What does the overlap of the Central Core clades imply about plate tectonics in the Northern California area?
3. Do you think it is fair to assume that the most highly genetically diverse area would be in the Humbolt Basin? Explain.
4. What does this article imply about the effects of plate tectonics on speciation? Had you considered this in the effects of speciation?