This is the abstract of the paper that goes with the blue-ish map of mammals.

**Dispersal will limit ability of mammals to track climate change in the Western Hemisphere**

Schloss, Nunez & Lawler, 2012, **Proceedings of the National Academy**, 102:22, www.pnas.org/cgi/doi/10.1073/pnas.1116791109

As they have in response to past climatic changes, many species will shift their distributions in response to modern climate change. However, due to the unprecedented rapidity of projected climatic changes, some species may not be able to move their ranges fast enough to track shifts in suitable climates and associated habitats. Here, we investigate the ability of 493 mammals to keep pace with projected climatic changes in the Western Hemisphere. We modeled the velocities at which species will likely need to move to keep pace with projected changes in suitable climates. We compared these velocities with the velocities at which species are able to move as a function of dispersal distances and dispersal frequencies. Across the Western Hemisphere, on average, 9.2% of mammals at a given location will likely be unable to keep pace with climate change. In some places, up to 39% of mammals may be unable to track shifts in suitable climates. Eighty-seven percent of mammalian species are expected to experience reductions in range size and 20% of these range reductions will likely be due to limited dispersal abilities as opposed to reductions in the area of suitable climate. Because climate change will likely outpace the response capacity of many mammals, mammalian vulnerability to climate change may be more extensive than previously anticipated.