Jared Dyreson

Anthropology 101-04

Dr. Schniter

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Lab One: Natural Selection and its effects

**Part One**  
When playing this game, I was faced with a multitude of natural disasters and barriers that I need to account for. One example was in game one where there was a larger predator and it was necessary to have a species that had long limbs to escape capture. This makes sense in the regard that if an organism can progress through the wilderness faster than the predator can, it will have a higher survival fitness than those who do not. Passing down this trait will over time will result in more offspring having this characteristic and will survive to reproduction. Once that barrier was overcome, I was faced with a extreme cold period, which meant my birds needed more fur to keep them warm. Those with bigger coats were favored and I quickly added a mutation to allow for the population to drift towards long legged birds with fur coats. I was able to see the birds that did not have have bulky coat were not able to survive and did not make it longer than 100,000 years. Along with an extreme cold, there was a shift in the size of the plants were available for the birds to eat. It was apparent that now organisms who had longer necks were preferred over shorter birds. A mutation to swing the population to have longer necks allowed for the population to flourish as they were able to reach the food they once could not. The population that ended up surviving this game was an odd mix of lanky birds with large fur coats, resembling an emu in an odd sense.

**Part Two**

The animal I have come up with is a carnivorous bat like creature that is roughly the size of a small car. It is named aptly the Battus Carnivorous or B.C for short. It is able to cover immense distances without stopping for rest. This allows for it to have a strong presence all around the world and also to have yearly migrations to North America from Western Europe. However, it’s major weakness is its need for food, as it must consume large quantities to survive. This puts a strain on local ecological environments and typically there is only one predator and one prey in regions that B.C is found in. B.C will generally eat the other predators in the area, making it the top of the food chain wherever it resides. This observation confirms Darwin’s first postulate which states that “populations can have infinite growth yet the environment they reside in has finite resources”. This is why there are many clusters of Battus Carnivorous with only a handful of members. Along with needing lots of food, it has fell short in gaining a strong immune system, aiding to it’s recent decline with the resurgence of the Bubonic Plague. The gene that codes for the resistance to the Bubonic Plague is RF-783 and has only been seen in a small section of the population. Because the planet has not seen such an epidemic in several hundred years, Natural Selection has not favored a strong immune system for the B.C population. Since this characteristic is passed down from generation to generation, nearly the entire population of B.C. now holds a deficiency in fighting the B.P. This confirms Darwin’s third postulate that says that characteristics are passed down from parent to offspring. There has yet to be any new discoveries in the diversity of the Battus Carnivorous, leading me and my colleagues to believe there aren’t any other subspecies. This is is alarming as Darwin’s second postulate remarks that organism’s diversity results in better survival. This could mean one of two things; this is a fairly new species or, as many of us suspect, there is an imminent extinction of Battus Carnivorous.

