**Budget Justification**

*Travel*

My thesis project will require me to travel to Eastern Washington to conduct playbacks for the Western Vesper Sparrow (*Pooecetes gramineus confinis*) as the subspecies’ geographic range in Washington is limited to the Eastern half of the state. Ideally, I will be able to conduct four playbacks on a given field day, so the six visits I have budgeted reflect the amount of visits that will allow me to meet my sample size goal of 20 playback trials accounting for some playbacks needing to be pulled from my sample.

*Materials/Supplies*

I do not plan on using many materials or supplies while conducting my thesis research. I will need to acquire non-bright flagging and print datasheets, but both materials are of modest cost that I will be able to cover personally.

*Equipment*

Aside from mileage, equipment needed for my experiment is the other major cost associated with my research.

JBL FLIP 4 – I will need portable speakers to broadcast the song recordings in the field, and I have selected this speaker based on the fact that it is omnidirectional, light, waterproof, and relatively inexpensive. Having two speakers will allow for multiple teams of observers to conduct playback trials simultaneously. I already own one speaker which I plan to use for my playback trials, so the included budget only accounts for the cost of a single speaker.

50m auxiliary cord – My experiment will require observers to remotely select a song recording to be played through a speaker. This can be achieved by using a long auxiliary cord connected to an iPod. The longest auxiliary cord commonly available is 50 meters long, as longer cords tend to result in a reduction in sound quality.

iPod – I will need a device to store and play song recordings in the field. Bird songs have been recorded as WAV files and will need to be played in this format as well. Compressing sound files into MP3 format can reduce sound quality, which could potentially impact the success of my experiment. Apple’s iPod is one of the only portable audio players on the market that supports sound files in WAV format. The price included in my budget is for two refurbished iPod touches with 8 GB storage capacity, basically the cheapest version available on the market.

Speaker stand – Stands will be needed to place speakers at the natural height of a singing vesper sparrow. Vesper sparrows almost exclusively sing from elevated perches, so it is important that the playback be broadcast from a similar height.

*Other*

I do not have any other costs associated with my project that I am requesting funding for.

**Pending Funding Requests**

I am currently in the process of applying for a research scholarship from the Society for Northwestern Vertebrate Biology. This scholarship awards up to $1,000 to graduate and undergraduate students conducting research on vertebrates within the Northwestern United States.

I am also planning on requesting funding from the Black Hills Audubon Society. Although they do not offer any specific grants or scholarships, they have helped fund other local avian research projects and I have been encouraged by a colleague to request modest funding to help cover the costs of my data collection.