Habitat fragmentation occurs when natural environments are developed upon and urbanized by people. Downtown Tacoma has some fragmented habitats left, some of which are on empty plots of land currently owned by UWT and which may eventually be developed on. In this experiment, I examine ground-dwelling arthropods on the University of Washington campus and two empty UWT-owned plots of land on Fawcett Avenue between South 17<sup>th</sup> street and South 21<sup>st</sup> street to see if there is a difference in arthropod diversity and determine if these fragmented habitats on the empty plots should be preserved for native species and future students to study. The study was done by collecting arthropods using 36 pit traps in various locations on both campus and the two large plots on Fawcett. Sardine was used as bait in one week and apples the following week. Insects were collected from the traps two days after setting the bait. Arthropods were then identified as close to species as possible. Results show that there does not seem to be a difference in beetle species richness between Fawcett and campus. However, there are some species that were caught on Fawcett that were not caught on campus and vice versa. Millipede species richness was interestingly much higher on the main campus fragments. The sites on Fawcett had a higher abundance of arthropods. Considering that data was collected in only two weeks, more research should potentially be done to have a more conclusive result.