

As we look into the deep expanse of space, telescopes like Hubble find a sky of small black holes the about mass of our sun, supermassive black holes the mass of more than 100,000 suns, and very little in between. To find why the universe lacks intermediate black holes, tidal disruption event host galaxies must be examined to see how these young galaxies turn black holes in the nucleus of the galaxy from small to intermediate to supermassive. These tidal disruption event host galaxies exist in galaxies in the "Green Valley" which are galaxies that are in a transitional phase of having activity in the nucleus be the main source of mass for black holes. The selection of the "Green Valley" galaxies should show the effect on the growth of central black holes and increase the chance of finding an intermediate black hole becoming supermassive. In this investigation, it could be possible to understand why small and supermassive black holes hold such numerical weight in the universe. Data is being collected and compiled from "Green Valley" galaxies, from the Sloan Digital Sky Survey. While data is still incomplete and still needs verification, data points such as galaxy-to-blackhole mass ratio, galaxy shape, special color, and star formation rates will be used to examine and differentiate patterns from other galaxies with either small or supermassive black holes. The most significant data as of right now comes from the spectroscopy from some of these galaxies, which shows more light from the more violet spectrum of visible light which signifies tidal disruption event activity in black holes, but no activity from further star formation. Hopefully, with more data, this will verify how black holes continue to grow after a galaxy has slowed down and how quickly they go through the intermediate-mass stage.