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Determining the Exoplanetary Research Capabilities of Bridgewater State University¹ TALIA MARTIN, Bridgewater State Coll — Exoplanets are an extremely popular and fast-growing area of research. Understanding exoplanets may help us understand our own solar system -and our own planet - better. As of July 30, 2013, there are 925 confirmed exoplanets in our galaxy and more are being found each day. The goal of my summer research project was to determine if exoplanet data could be collected at Bridgewater State University given our equipment and our location. Using our Celestron 14" EdgeHD Schmidt-Cassegrain Telescope, we were able to observe three different transits of the known exoplanet HD 189733b. We were able to see a change in brightness as the planet blocked light from the parent star, and were able to model fit these data as well. While further analyses are needed, these successful observations are a strong indicator that in fact we can do exoplanet research at BSU. Based on this summer work, we now have a strong foundation for future students interested in exoplanetary research at BSU.

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