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An Investigation of the Canis Major Overdensity W.L. POWELL JR., RONALD WILHELM, AMY WESTFALL, ADAM LAUCHNER, ABEL DIAZ, Texas Tech University — Using 2MASS colors Martin et al. (2004) uncovered evidence for a remnant dwarf galaxy in Canis Major, in the form of an overdensity of M-giant stars. The spatial distribution of the M-giants indicate an extended, and likely disrupted, group of stars extending over roughly 30 degrees of the sky. The nature of this overdensity would have ramifications to our understanding of our Galaxy's thick disk population and its formation history. We made a photometric survey to find candidate horizontal branch stars that match the characteristics of the Canis Major overdensity. The goal was to find a group of horizontal branch stars, as is expected for an old population, in the Canis Major dwarf. We performed spectroscopy on a group of these candidate stars. We present new photometry and color magnitude diagrams for various Canis fields and include kinematic results.

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