1077-26-2795 **Michael J. Evans** and **Manuel J. Sanders III***, mjsander@uscb.edu. *Some Subclasses of the Real-Valued Honorary Baire Two Functions on* $\mathbb{R}^n$. Preliminary report.

Certain subclasses of the class of Baire one real-valued functions have very nice properties, especially concerning their points of continuity and their preservation of connectedness for many connected sets. A Gibson [weakly Gibson] function $f : \mathbb{R}^n \to \mathbb{R}$ is defined by the requirement that $f(\overline{U}) \subseteq \overline{f(U)}$ for every open [open connected] set U in $\mathbb{R}^n$. It is known that Baire one, Gibson functions are continuous, and that Baire one, weakly Gibson functions have Darboux-like properties in the sense that if $U \subseteq \mathbb{R}^n$ is an open connected set and $U \subseteq S \subseteq \overline{U}$, then $f(S)$ is an interval. A summary of the study of the situation where the Baire one condition is replaced by honorary Baire two will be discussed. Distinctly different results are found. (Received September 22, 2011)