My plan of research is looking at the Connecticut Valley Trough, in particular looking at deformation that occurred during the Acadian orogeny. My area of focus will be on the Waits River Formation. The question being focused on is in the field sites where Walsh et al. (2010) mapped the dominant foliation as $S_1$ but thin sections analyzed by UVM graduate student, Sam Lagor, at the same field site show that the dominant foliation is really $S_2$. Some of the possible reasons for $S_2$ being the dominant foliation in outcrop could be a previously unrecognized shear zone or a possible $2^{nd}$ generation isoclinal fold. I also am going to look at what defines $S_1$ vs. $S_2$ vs. $S_3$. I plan on addressing my problem by going and visiting the field site where the thin section was taken from. I plan on using an approximately one kilometer radius from the field site to look at bedrock outcrops to see if there are similar issues present within the other rocks. I plan on making outcrop sketches, measuring strike and dips of foliations and axial planes of folds as well as the trends and plunges of lineations and fold hinges. Based upon my field observations I will choose key sites from which I will take orientated samples. I then plan on taking those orientated samples back to the lab to produce thin section billets. I then plan on using the thin sections as well as field data to analyze and attempt to determine the true generations of foliation for the area. I plan on mapping any strain gradient documented in the area as well as creating a cross section of the area.