1093-92-210 **Michael Crone**, Dept. of Math Sci. MS-3F2, 4400 University Dr., Fairfax, VA 22030, and **Evelyn Sander*** (esander@gmu.edu), Dept. of Math. Sci. MS-3F2, 4400 University Dr., Fairfax, VA 22030. *Bifurcations for a predator-prey model in the context of fisheries.* Preliminary report.

This talk will discuss a bifurcation study for a predator-prey model. The model is ratio dependent, with constant harvest of both predator and prey. Some of the details of the model, including the existence of Takens-Bogdanov points, have been previously studied by Xiao and collaborators. Our aim is to classify biologically relevant bifurcations for the model using a combination of analytical and numerical continuation methods. While this model has general relevance, our primary interest is in the context of commercial fisheries. (Received August 14, 2013)