1145-37-1880 **Md Nazmul Hassan*** (md.nazmul.hassan@ttu.edu), 303 Detroit Ave Apt 204, Lubbock, TX 79415, and **Angela Peace**. *Stoichiometry and Toxicity in Aquatic Food Webs.*

Accurately assessing the risks of contaminants requires more than an understanding of the effects of contaminants on individual organism, but requires further understanding of complex ecological interactions, elemental cycling, and the interactive effects of natural stressors, such as resource limitations, and contaminant stressors. There is an increasing evidence that organisms experience interactive effects of contaminant stressors and food conditions, such as resource stoichiometry and nutrient availability. We are developing and analyzing a series of empirically testable and robust mathematical models of populations dynamics subject to stoichiometric and contaminant stressors. In parallel to developing the models, we will integrate sufficient data from existing and new experiments to parameterize, test, and improve them. The synthesis of the models and experiments will result in the development of a robust theoretical framework appropriate for improved risk assessment applications in ecotoxicology that incorporate the effects of stoichiometric constraints on concurrent ecological and toxicological processes. In particular, we are presenting how the toxicant bioaccumulates to the upper food webs. (Received September 24, 2018)