

METABOLIC RESPONSES OF *RANA PIFIENS* TO AN ACIDIC ENVIRONMENT. I.

Vatnick, R. Myers\* [Ruth] and M. Brodtkin. Widener University.

Vatnick@science.widener.edu

*Rana pipiens* are among the species that are disappearing from many habitats where they used to flourish, contributing to the well recognized world-wide decline in frog populations. Among several other factors environmental acidification has been considered as a possible contributor to this occurrence. Results from several experiment that we have conducted in the last six years indicate that *Rana pipiens* are sensitive to acidic environments and exhibit over 60% mortality within 10 days of exposure to pH 5.5. This research project was designed to characterize the metabolic responses of *Rana pipiens* exposed to mild acid conditions for 10 days. Whole body metabolism of frogs held in pH 5.5 buffer and pH 7.0 buffer was measured daily during the 10 days of the experiment using a Sable™ metabolic system. Preliminary results indicate that survivors and non-survivors differ in their metabolic responses to exposure to pH 5.5. Furthermore, the metabolic response of the survivors appears to be similar to that of frogs held at pH 7.0.