**Does habitat heterogeneity affect tadpole development?**

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Tadpoles exhibit phenotypic plasticity when placed in unpredictable environments. To survive inhospitable wetlands many tadpoles will accelerate their developmental rate and in consequence to this, metamorphose at a smaller size to ensure survival. However this may decrease fecundity and survivorship in adult stages of anurans. We investigated developmental responses to differing habitats in 3 focal frog species at the Queen’s University Biology Field Station: *Pseudacris crucifer*, *Lithobates sylvaticus*, and *Hyla versicolor*. From May-July 2014 daily sweeps were conducted in 9 marshes, tadpole length measured and stage of development (Gosner Stage) was identified. Marshes were classified by hydroperiod into 4 types*. H. versicolor* showed a significant difference in size at metamorphosis among wetlands (P<0.05). Developmental rate also differed significantly in wetland type for *H. versicolor* (P<0.05). Developmental rate among individual wetlands differed for *H. versicolor* (P<0.01) and *P. crucifer* (P<0.05). There may be several environmental factors that can account for these differences in developmental rate and size at metamorphosis including hydroperiod, predator and population density, food quality and availability, temperature of the wetland, inter/intra-specific competition, and microhabitats within a wetland. Future studies may consider looking at these factors individually and see how significant their effect is on tadpole development.