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## **Effects of desiccation on juvenile *Rana clamitans* foraging behavior**

This study follows from our work last summer, which examined and compared the desiccation rates of three species of juvenile amphibians (*Rana sylvatica*, *Rana clamitans*, and *Bufo americanus*) in four different microhabitats (forest drainages, forest ridges, brush piles, and clear cuts). Our results showed that generally all of the species lost the most water in the drier forest ridges and clear cuts. While desiccation in itself can most certainly affect a population by reducing survival, we were also interested in how desiccation might affect foraging behavior. How would desiccation affect an amphibian's decision, or rather what stimulus would take precedence, to either rehydrate or to forage for food? To answer this question we decided to observe the behavior of hydrated and dehydrated juvenile green frogs (*Rana clamitans*). Half of the animals were randomly selected to be dehydrated while the others remained fully hydrated, also the animals did not eat for two days before the experiment. Each animal was placed in an aquarium and twenty observations were taken of each animal at half-hour intervals for four hours. The aquaria were filled with approximately one inch of dry potting soil, and on one side of the aquaria a dish with moist soil was implanted in the dry soil. An equal number of crickets were placed in each of the aquaria. The behavioral observations consisted of: actively foraging, rehydrating, and inactive in the dry soil. Our results show that the dehydrated animals spent significantly less time foraging than the hydrated animals. Our results indicate that rehydration takes priority over foraging. A juvenile amphibian that consistently has to rehydrate rather than forage because of poor habitat is likely to eat less and grow slower. This retardation of growth could affect when the animal is able to reproduce.