

COLLEEN HOSELTON and ZACHARY LOUGHMAN, Department of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26074. Determination of the Feeding Schedule to Achieve Growth Optimization in Juvenile Snakes: A Case Study.

Feeding schedules are an important aspect of any husbandry regime for animals in human care. While frequently debated for endothermic animals, ectotherms, especially snakes, often suffer from stagnated animal husbandry practices. To rectify this issue, we investigated the impact of food presentation frequency, as well as food amount per presentation on the growth of one-year-old and newborn Corn Snakes (*Pantherophis guttatus*) and newborn False Water Cobras (*Hydrodynastes gigas*) in human care.

Three cohorts, each composed of siblings, were split into two treatment groups for the experiment. Each snake was fed two prey items representing less than 5% of their mass, approximately three days apart over a 15 week period. All animals were weighed weekly in grams. Treatment 1 received both prey items on the same day while treatment 2 received one prey item a day for 2 consecutive days. Over a 7 day period each individual consumed the same amount of food.

The goal of this study was to test the impact of energy allocation on digestion and to determine if the digestion of a single large meal resulted in a loss of energy allocation for growth. Results indicated that there was not a major difference in growth between treatments, suggesting that energy allocated for digesting large amounts of prey did not result in a loss of energy allocation for growth.