

Responses to prey odors in juvenile of the snake *Elaphe obsoleta spiloides*

, a predatory generalist

("Elaphe obsoleta spiloides, a predatory generalist". di Stephen J. Mullin and William H. N. Gutzke, Department of Biology, University of Memphis, TN 38152, U.S.A.)

Predatory generalist should respond with equal vigor to chemosensory cues from all types of accepted prey. Feeding such predators only one type of prey, however, may instill a preference for odors from that prey. Gray rat snakes (*Elaphe obsoleta spiloides*) may also exhibit prey preference in early stages of ontogeny because they are limited morphologically as to the types of prey they can ingest. Neonate individuals were presented with chemosensory cues from mammalian and avian prey prior to initial feeding, and again at one and two years of age. Snakes were fed only neonate mice (*Mus domesticus*) in between presentation of prey odors. Tongue-flick rates were generally higher after initial feeding episodes. Response to odors was stronger for sources of prey than for control substances, but snakes did not exhibit an increased response or different prey odors in any of the years tested. However, comparisons of responses pooled by prey taxon indicated that, regardless of age, snakes expressed more interest in mammalian prey than avian prey. There were no differences in response to any of the prey types as a function of sex, but male tongue-flick rates were higher than females for the negative control treatment. The absence of any directional shift in prey preference in Gray rat snakes fed only one prey type suggest a strong inherent component directing response to prey odors, even when the prey represented exceed the size of ingestible prey in early stages of ontogeny.