

Seasonal and Prey-size Dietary Patterns of Black Ratsnakes (Elaphe obsoleta obsoleta)

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ABSTRACT

Black ratsnakes (*Elaphe obsoleta obsoleta*) prey extensively on both birds (eggs and nestlings) and mammals. There is conflicting evidence, however, regarding whether the snakes specialize on birds during the birds' nesting season or whether predation on birds is opportunistic. We tested these alternatives by determining seasonal dietary patterns from 81 fecal samples collected from black ratsnakes in eastern Ontario over 4 y. We also used these data to determine how diet varies with snake size. Birds occurred in the snakes' diet from May through August, but the occurrence of birds never exceeded that of mammals in any month. This pattern was the same as that previously reported for black ratsnakes in Kansas and supports the hypothesis that black ratsnakes prey on birds opportunistically. Relative to smaller individuals, larger ratsnakes preyed on larger species of mammals and reduced their consumption of smaller species of mammals. The reduction in the consumption of small prey by large snakes was due to diet diversification rather than specialization. However, because larger snakes continued to include small prey in their diet, predation patterns on birds and mammals suggest that ratsnakes are opportunistic predators.

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