Short Notes

An Active Bull Snake in Near-Freezing Temperature

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On 21 February 1969, an adult bull snake (*Pituophis melanoleucus*) was observed crawling on a road (R.18W, T-13S, SW 1/4 Sec. 32) in Ellis Co., Kansas. The snake, which was seen at approximately 2:30 PM, seemed quite active even though the air temperature 1 inch above the ground was recorded at 4°C. The cloacal temperature was not ascertained as the snake escaped into what appeared to be a small mammal burrow before it could be collected.

The lowest air temperatures at which Brattstrom (1965) and Fitch (1956) found active bull snakes were 15.5°C and 15.2°C respectively. In both cases the cloacal temperatures were higher than the air temperatures. Brattstrom (1965) suggests the minimum voluntary body temperature of bull snakes is 16.4°C and states that many reptiles are able to absorb solar radiation and raise their body temperatures far above air temperatures even on cool days. In this case, the snake would have had to raise its body temperature 12.4°C above the recorded 4°C air temperature to attain this minimum voluntary body temperature. Although the cloacal temperature was not taken, this seems doubtful as the average daily temperature averaged less than 1°C for the previous 7 days and there was a minimum of 3 inches of snow on the ground during this period.

Literature Cited

BRATTSTROM, BAYARD H. 1965. Body temperatures of reptiles. Amer. Midland Nat., 73:376–422.

FITCH, HENRY S. 1956. Temperature responses in free-living amphibians and reptiles of northeastern Kansas. Univ. Kansas Publ., Mus. Nat. Hist., 8:417–476.

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