

Mojave Desert Sidewinder (*Crotalus cerastes cerastes*) Behavior

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While conducting diurnal small mammal surveys in the Indian Wells Valley of San Bernardino County (35° 39'N, 117° 27'W), we observed a Mojave Desert Sidewinder (*Crotalus cerastes cerastes*) use a cardboard trap shade as a possible thermoregulation site.

The Mojave Desert Sidewinder generally emerges from winter den sites from mid-March to mid-April and returns to den sites between mid-October and mid-November (Secor and Nagy, 1994). During periods of cooler daytime temperatures, Mojave Desert Sidewinders are observed diurnally and become more nocturnal or crepuscular as daytime temperatures increase (Brattstrom, 1965; Secor, 1994).

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We first observed a Mojave Desert Sidewinder “cratered” in front of a Sherman live trap (H.B. Sherman Traps, Tallahassee, FL) at 0545h on 4 May 2006 (Fig. 1). “Cratering” is an activity whereby the sidewinder works the outer edges of its coils into the sand, typically in front of rodent burrows (Secor, 1994). This “cratering” behavior provides a cryptic and camouflaged position from which to ambush prey and may also serve a thermoregulatory purpose (Secor, 1994).

During our surveys, the sidewinder was observed sheltering between the trap and cardboard shade, on top of the shade, or burrowed under the trap. The sidewinder remained present at the trap site until the trap was removed and relocated to a new trapping grid at 1830h on 5 May 2006. Temperatures recorded during the sidewinder’s diurnal presence ranged from 10° to 30°C, well within the range of 8.2–38.1°C reported by Secor and Nagy (1994).

Sidewinders are typically eurythermal snakes with a relatively wide normal activity range (Moore, 1978). Although these snakes are essentially nocturnal or crepuscular in habit (Stebbins, 1943), they are active on the desert surface during the day only in the spring and fall (Secor and Nagy, 1994). Sidewinders are able to tolerate daytime spring and fall temperatures by repositioning themselves within shifting shade patches under shrubs and bushes. By the end of April, sidewinders become more nocturnal, and during sunrise they retreat to rodent burrows (Secor and Nagy, 1994).

Our observation occurred during the month of May when sidewinders should be nocturnally active on the surface and in rodent burrow retreats during the day. The use of a cardboard shade for daytime use is of note because it appears that the snake chose



Figure 1. Mojave Desert Sidewinder (*Crotalus cerastes cerastes*) cratered under cardboard trap shade.

an above-ground structure during the hotter portion of the day rather than retreating to a rodent burrow, a ubiquitous and readily available shelter. Potential advantages are that the snake need not seek a burrow each night, can remain sheltered and hidden to ambush prey, and does not have to adjust itself in relation to the shifting shadows. Taking advantage of a structure like this is physiologically advantageous in that the activities and movements of sit-and-wait foraging snakes are typically less than those of widely foraging species (Secor, 1994).

We thank S. Berry, S.I. Hagen, and D.P. Newman for reviewing the manuscript. The California Department of Transportation funded the surveys, and the U.S. Bureau of Land Management granted permission to access their properties during these studies.

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