

although *C. aquilus* is considered a terrestrial species, occasionally it can display arboreal behavior when structural characteristics of the habitat are appropriate, such as in other species of rattlesnakes (García-Padilla et al., 2016; Loc-Barragán et al., 2016, and references therein). The vegetation in the area is characterized by montane pine-oak forest. Additionally, individuals of *Dryophytes arenicolor*, *D. eximius*, and *Sceloporus grammicus* were observed in the same habitat, which might represent potential prey for *C. aquilus*. Herein we report the first observation of arboreal behavior in *C. aquilus*.

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***Crotalus estebanensis*. Activity and thermoregulation.** Thermoregulatory studies in reptiles are abundant, primarily for lizards (Gans and Pough, 1982; Hertz et al., 1993), but few studies are available for snakes, especially Mexican pitvipers. *Crotalus estebanensis* is an endemic rattlesnake found on Isla San Esteban, in the Gulf of California, Baja California, Mexico (Grismer, 1999a, b). This species is not protected by Mexican law (SEMARNAT, 2010), and is classified as Least Concern by IUCN (see Frost, 2007). The reasons for this classification primarily were because humans do not inhabit the island, and the species is not known to be at risk from the introduction of invasive species, or from hurricanes or other natural disasters. *Crotalus estebanensis* inhabits xerophilic thorn scrub surrounded by rocky hills, is active from early March to early October, has been observed foraging during the day in April and May, might be entirely nocturnal during the warmest months of the year, and gives birth in summer and shows minimal activity during the winter (Grismer, 2002).

Here we report information on the thermal characteristics of *C. estebanensis* for the first time. In September 2005 we captured and released (permit SGPA/DGVS/01993/08) five *C. estebanensis* (four males, one female) and recorded our data. Immediately upon capture, we noted the time, and using a Miller & Weber quick reading thermometer recorded the body temperature (*T_b*) via the cloaca, the substrate temperature (*T_s*) where snakes were observed, and the air temperature (*T_a*) 2 cm above the location where the snakes were found. We present our results in Table 1. We collected the snakes from 1800 to 2045 h. The mean *T_b* was $32.2 \pm 1.5^\circ\text{C}$, both the *T_s* and *T_a* were $31.3 \pm 1.4^\circ\text{C}$. Both of the environmental temperatures showed a statistically significant positive relationship with *T_b* ($r^2 = 0.96$; $P < 0.005$). Our results show that *C. estebanensis* appears to avoid high daytime temperatures, follows a crepuscular–nocturnal activity pattern, and can be considered a thermoconforming species in autumn.

Crotalus catalinensis, another endemic insular rattlesnake, maintains lower temperatures than those we recorded for *C. estebanensis* ($n = 5$, mean *T_b* = 29.9°C ; Avila-Villegas, 2005), despite displaying similar activity patterns to those of *C. estebanensis*. Based on these observations, we found it necessary to determine the thermal ecology, seasonal activity patterns, and physiological thermal requirements (e.g. Hertz et al. 1993; Blouin-Demers and Weatherhead, 2001) for *C. estebanensis*, to provide the critical information necessary to determine its conservation status, as well as to accurately assess the potential impacts of global climate change on this species.

Table 1. Temperature data for *Crotalus estebanensis* collected on Isla San Esteban, Baja California, Mexico. Field body temperature = *T_b*; air temperature = *T_a*; and substrate temperature = *T_s*.

| Date | Time of Collection | Sex | Location | <i>T_b</i> (°C) | <i>T_a</i> (°C) | <i>T_s</i> (°C) |
|---------------------------|--------------------|-----|----------|---------------------------|---------------------------|---------------------------|
| 6 September 2005 | 1800 h | M | Bush | 34 | 33 | 33 |
| 8 September 2005 | 1925 h | M | Cactus | 33.8 | 32.8 | 32.8 |
| 9 September 2005 | 1930 h | M | Ground | 31 | 30 | 30 |
| 9 September 2005 | 2010 h | F | Ground | 31 | 31 | 31 |
| 9 September 2005 | 2045 h | M | Ground | 31 | 30 | 30 |
| $\bar{x} \pm 1\text{ SD}$ | | | | 32.1 ± 1.5 | 31.3 ± 1.4 | 31.3 ± 1.4 |

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***Crotalus polystictus*. Diet.** The diet of *Crotalus polystictus* is not well documented from throughout its entire range. Prey items in the literature include arthropods, lizards, birds, pigmy mice and shrews (*Baiomys* and Soricidae), mice (*Peromyscus* and *Reithrodontomys*), voles (*Microtus mexicanus*) and larger mammals (*Pappogeomys bulleri*, *Sigmodon* or *Oryzomys*, *Rattus*, *Sylvilagus*, and Sciuridae) (Vázquez-Díaz and Quintero-Díaz 2005; Meik et al. 2012; Mociño-DeLOYA and Setser 2016), but most have been identified to the genus level.

On 16 October 2008 at 1200 h, GEQD found a male *C. polystictus* (snout–vent length [SVL] = 710 mm, tail length [TL] = 54 mm, body mass = 306 g) dead on the road at Mesa Montoro, Municipio de San José de Gracia, Aguascalientes, Mexico (22.003422°N, 102.569005°W; WGS 84; elev. 2,372 m). Upon dissection, we found a partially digested *Thomomys umbrinus* (Southern Pocket Gopher) in the stomach contents, which represents the first record of *T. umbrinus* in the diet of *C. polystictus*. On 8 June 2014 at 1615 h, RACM found another male *C. polystictus* (SVL = 596 mm, TL = 63 mm; body mass = 154 g) at Mesa el Huarache, Calvillo, Aguascalientes (21.883933°N, 102.850426°W; WGS 84; elev. 2,380) under a rock. A fecal sample was collected, and an analysis revealed defecated hair and bones from a *Baiomys taylori* (Northern Pigmy Mouse). The rattlesnake was released. This sample represents the first record of *C. polystictus* consuming *B. taylori*.

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