



PHOTOS BY DREW R. DAVIS

FIG. 1. Adult *Crotalus scutulatus* found in Jeff Davis County, Texas, USA, exhibiting the defensive neck spreading behavior: A) full-body view; B) magnified head and neck view.

body flattening, a defensive behavior marked by the extreme flattening of the posterior part of the body (Klauber 1956, *op. cit.*). Few detailed accounts of neck spreading behavior in wild rattlesnakes are known, with published accounts existing for one individual *C. scutulatus scutulatus* (Brown 2000. Herpetol. Rev. 31:45), one individual *C. s. salvini* (Glenn and Lawler 1987. Herpetol. Rev. 18:15–16), and three individual *C. tzabcan* (Carbajal-Márquez et al. 2018, *op. cit.*). Here, we report an additional observation of neck spreading in *C. scutulatus*.

On 10 August 2022, at 2131 h, we found an adult male *C. scutulatus* on Texas Highway 166, ca. 2.3 km SW of its junction with Farm to Market Road 505, Jeff Davis County, Texas, USA (30.53630°N, 104.24944°W; WGS 84). The snake was found stretched out in the road, and it remained this way when approached. A snake hook was used to move the snake off the roadway, but once the hook made contact with the snake, the snake coiled defensively, intermittently rattled its tail, and exhibited a neck spreading behavior (Fig. 1). The snake then alternated between striking and actively moving around on the road. The neck spreading behavior continued for the duration of these interactions, which lasted for ca. 5 min. At 2136 h, the snake was moved off the roadway, the neck spreading behavior ceased, and we left. This is only the second published account of neck spreading as a defensive behavior in the northern subspecies, *C. s. scutulatus*, and comes from the same geographic region as the observation made by Brown (2000, *op. cit.*). Additional observations are needed to further understand how common and widespread this behavior is throughout the range of *C. scutulatus*.

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CROTALUS SCUTULATUS (Mohave Rattlesnake). DEFENSIVE BEHAVIOR. Defensive behavior in rattlesnakes (*Crotalus* spp.; Viperidae) generally includes crypsis, flight, rattling of the tail, coiling of the body into a defensive posture, hissing, body flattening, and scent gland secretion (Klauber 1956. Rattlesnakes: Their Habits, Life Histories, and Influence of Mankind, vol. 1. University of California Press, Berkeley, California. xxix + 708 pp.; Greene 1994. In Gans and Huey [eds.], Biology of the Reptilia, Volume 16, Ecology B, Defense and Life History, pp. 1–152. Branta Books, Ann Arbor, Michigan). An additional defensive behavior, neck spreading, also referred to as neck flattening (Carbajal-Márquez et al. 2018. Herpetol. Notes 11:429–431), has been reported in rattlesnakes. Neck spreading occurs when the neck spreads laterally (dorsoventrally flattened) and the anterior-most portion of the cervical spine is straight and aligned with the head (Carbajal-Márquez et al. 2018, *op. cit.*), which differs from