

TABLE 7. WATER AND *T. coahuila* CLOACAL TEMPERATURES.

Month	Water		Cloaca	
	Mean \pm 1 SE	Extremes	Mean \pm 1 SE	Extremes
July (78) ¹	28.08 \pm 0.30	20.7—32.6	28.14 \pm 0.30	20.1—32.7
August (60)	27.84 \pm 0.38	21.2—32.5	27.94 \pm 0.38	20.9—32.6
December (12)	22.08 \pm 0.79	17.0—26.6	21.93 \pm 0.79	16.3—26.6
January (10)	21.75 \pm 1.12	15.0—26.9	20.67 \pm 1.12	14.8—26.7
April (40)	25.74 \pm 0.65	19.5—34.4	25.80 \pm 0.65	18.8—33.5
Hour ²				
6-7 AM (16)	25.47 \pm 0.56	20.7—30.1	25.12 \pm 0.49	20.8—29.8
7-8 AM (31)	25.93 \pm 0.40	20.8—30.5	25.68 \pm 0.36	20.1—30.4
4-5 PM (16)	30.51 \pm 0.56	28.2—32.6	30.88 \pm 0.49	28.5—32.7
5-6 PM (36)	29.33 \pm 0.37	26.2—32.1	29.53 \pm 0.33	26.9—31.8
6-7 PM (22)	28.12 \pm 0.47	24.8—31.0	28.39 \pm 0.42	25.4—30.7

¹ Number of records in parentheses.

² In July and August 1965.

tures. Clouds can effectively reduce insolation and rates of heat gain (Boyer 1965).

Seasonal variation in the normal activity range of *T. coahuila* in marshes is evident (Table 7, Fig. 9). Cloacal temperatures in December and January are significantly lower than those in April, while the April temperatures are significantly lower than records in July and August. A voluntary minimum temperature of 14.8°C (January) and a voluntary maximum of 33.5°C (April) were the extreme cloacal temperatures recorded at all seasons within marshes. These give the approximate limits of the normal activity range in shallow water. Cloacal temperature variation closely follows the seasonal changes in marsh water temperatures brought about by over-all climatic changes of the area. Mean monthly air temperatures for Cuatro Ciénegas (Contreras Arias 1942) show December and January as the coldest months, with July and August as the hottest, and with April intermediate between the two. With data presently available showing such wide seasonal fluctuations, it is doubtful that calculation of an optimum or preferred cloacal temperature would be meaningful for *T. coahuila*. Moll and Legler (1971) reached essentially the same conclusion regarding *Pseudemys scripta* in the tropics.

During July and August 1965, when most data were taken on *T. coahuila*, records were divided into 1-hour periods to test variation in cloacal temperatures at different times of day (Table 7, Fig. 9). The difference in mean cloacal temperatures between the time periods is highly significant ($F=33.2$, $P<0.01$). Cloacal and water temperatures were lowest between 6:00 and 7:00 AM, the period shortly after sunrise, before insolation raised water or cloacal temperatures. Maxima