

TABLE 1. Capture dates and days between captures for *Pituophis ruthveni* that were captured in the same trap either on the same date or within nine days of a female.

Snake ID#	Sex	Capture Date	Duration (days)
100	F	4/12/1995	
101	M	4/18/1995	6
118	F	5/10/1996	
119	M	5/10/1996	0
141	F	6/6/2000	
140	M	6/6/2000	0
181	F	4/19/2004	
182	M	4/28/2004	9
219	F	5/27/2012	
209	M	5/27/2012	
201	M	5/27/2012	0
220	F	5/25/2012	
221	M	5/30/2012	5
202	F	6/3/2013	
231	M	6/3/2013	0
202	F	4/22/2015	
239	M	4/30/2015	8

PITUOPHIS RUTHVENI (Louisiana Pinesnake). REPRODUCTION / BREEDING PHENOLOGY. Determining the reproductive phenology of snakes is important since it marks a time period where snakes are particularly vulnerable to predation (Greene 1997. *Snakes: The Evolution of Mystery in Nature*. University of California Press, Berkeley. 351 pp.). In addition, knowledge of reproductive phenology may help captive breeding programs specify appropriate times to pair snakes for reproduction. *Pituophis ruthveni* is a large-bodied constrictor endemic to western Louisiana and eastern Texas, USA. Recent surveys suggest that the species has declined and is now restricted to seven isolated populations (Rudolph et al. 2006. *Southeast. Nat.* 5:463–472). The species is currently a Candidate Species for listing under the Endangered Species Act. Very little is known about *P. ruthveni* reproduction in the wild. To our knowledge, copulation has not been witnessed, nor has a nest been documented. Here we present data on multiple adult *P. ruthveni* captured either concurrently, or within nine days of each other (hereafter co-occurrences). Data were taken from a historical records database containing all published and reported *P. ruthveni* capture data. All captures were via box trap/drift fence arrays (Burgdorf et al. 2005. *Herpetol. Rev.* 36:421–424) during surveys for *P. ruthveni* from 1994 to 2015. Traps were typically checked once a week from mid-March to mid-October.

Overall, we detected 10 co-occurrences out of 132 trap captured *P. ruthveni*. Eight of these co-occurrences consisted of a female captured concurrently with or prior to males. These eight co-occurrences all occurred between 12 April and 6 June (Table 1). The remaining two co-occurrences consisted of two females captured on the same day in late June, and a male that was captured six days prior to a female in early June. Males have

never been captured in the same trap less than nine days apart. For instances where the initial snake was removed from the trap multiple days before the subsequent snake, it is possible that the subsequent snake was actually captured by the trap soon after the initial snake was removed.

Presumably, in the eight cases of interest, male snakes followed receptive female snakes into the traps, via a chemical trail (Ford 1986. *In* Duvall et al. [eds.], *Chemical Signals in Vertebrates 4; Ecology, Evolution, and Comparative Biology*, pp. 261–278. Plenum Press, New York); however, the persistence of a chemical trail is unknown for *P. ruthveni*. These co-occurrences suggest that mating occurs from approximately mid-April to early June in the wild. In captivity, *P. ruthveni* exhibit a range in mean gestation period of 33.0–64.3 days (N = 18, mean = 50.1, SE = 2.1) and a range in mean incubation period of 60.2–86.5 days (N = 20, mean = 72.4, SE = 1.6) (J. Pierce, unpubl. data). Based on these reproductive parameters and our estimated mating season, egg laying would occur from mid-May to early August, and hatching would occur from late July to mid-October.

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