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PHILODRYAS CHAMISSONIS (Long-tailed Snake) and **LIOLAEMUS NITIDUS**. **PREDATION DETERMINED BY PIT TAG**. As part of a multi-species capture-recapture study in central Chile (31.9861°S, 71.1696167°W, 820 m elev., datum Prov SudAm 56) during October 2007, we collected a *Philodryas chamissonis* (68 cm total length, 24 g) that contained a secondarily-ingested PIT tag in its stomach. The PIT tag originally had been placed in a juvenile *Liolaemus nitidus* (5.0 cm SVL, 4.6 g) in December 2006 (10 months earlier). Thus, the minimum prey/predator ratio is 19.2%, exceeding the mean value of $7.7 \pm 3.1\%$ reported by Greene and Jaksic (1992. Rev. Chil. Hist. Nat. Santiago, Chile 65:485–493) for museum specimens of *P. chamissonis*. Our observation suggests the potential utility of PIT tags in long-term studies of predation.

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RHINOCHAILUS LECONTEI (Long-nosed Snake). **CANNIBALISM**. The diet of *Rhinocheilus lecontei* consists mainly of lizards, small mammals, and squamate eggs (Rodríguez-Robles et al. 1999. J. Herpetol. 33:87–92; Rodríguez-Robles and Greene 1999. J. Zool. Lond. 248:489–499). Although general references to predation on snakes have appeared (e.g., Degenhardt et al. 1996. Amphibians and Reptiles of New Mexico. Univ. New Mexico Press, Albuquerque. 431 pp.; Stebbins 2003. A Field Guide to Western Reptiles and Amphibians, 3rd ed., revised. Houghton Mifflin Co., Boston, Massachusetts. 533 pp.; Werler and Dixon 2000. Texas Snakes: Identification, Distribution, and Natural History. Univ. Texas Press, Austin. 437 pp.), specific reports are lacking and thus it is unclear if *R. lecontei* preys on snakes in the wild. Klauber (1941. Trans. San Diego Soc. Nat. Hist. 9[29]:289–332) reported

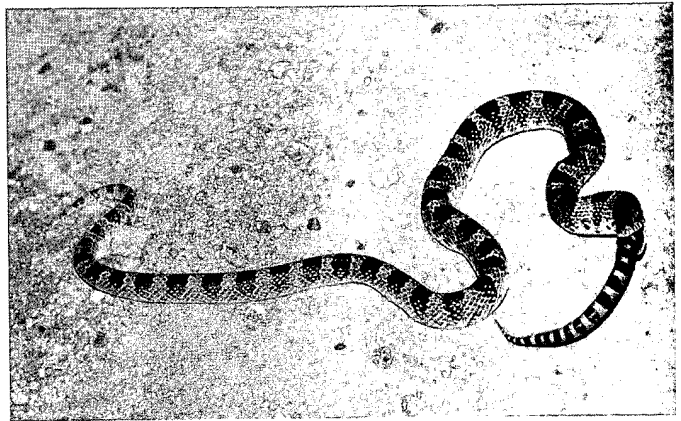


FIG. 1. Adult *Rhinocheilus lecontei* ingesting a juvenile conspecific, Alameda Co., California.

feeding on *Chionactis occipitalis* in captivity. Here I document an instance of predation on a juvenile conspecific.

On 17 May 2009 at 2307 h, I observed an adult *R. lecontei* (estimated total length 90 cm) ingesting a juvenile conspecific (ca. 32 cm TL) (Fig. 1). Although ingestion had commenced before my arrival, the sequence I observed was completed in ca. 2 minutes. The smaller snake did not display any obvious injuries. This observation took place 24 km by air SE of Livermore, Alameda Co., California, USA.

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THAMNOPHIS ELEGANS VAGRANS (Wandering Gartersnake). **DEFENSIVE BEHAVIOR**. Several species of snakes have been observed to enlarge or triangulate the head as a defensive response to a predator (Greene 1988. In C. Gans and R. B. Huey [eds], Biology of the Reptilia, Volume 16, Ecology B, pp. 1–152. Alan R. Liss, New York). In June 2007, I observed this behavior as a defensive response in three specimens of *Thamnophis elegans vagrans* (ca. 45 cm total length) in a residential area of Springville, Utah, USA (40.1529°N, 111.5960°W). Sexes were not determined.

Defensive responses in the snakes were elicited by a peck on the head by a nest-guarding American Robin (*Turdus migratorius*). The nest was located 1.75 m above ground in a cherry tree (*Prunus cerasus*). The robin attacked up to 4.6 m from its nest. The original observation occurred with no manipulation on my part. However, after the initial observation, I captured two other *T. e. vagrans* within 200 m of the nest site and placed them individually under the same robin nest. The bird responded in the same manner to these new snakes (i.e., flying from nest to ground and pecking at the snake's head). Upon being attacked, the snakes quickly coiled and exhibited head triangulation, accompanied by aggressive posturing, i.e. in a stance poised to strike, and repeated striking with mouth open. Once the snakes exhibited this defensive behavior, attacks by the bird ceased.

Head triangulation as a defensive response has been documented for many colubrid species (Greene 1988, *op. cit.*), and has apparently evolved independently multiple times (Young et al. 1999. J. Zool., Lond. 248:169–177). However, to the best of my knowledge this is the first report of head triangulation in *Thamnophis*. Werner