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Regina rigida sinicola (=Liodytes rigida sinicola) (Gulf Glossy Crayfish Snake) Diet and Habitat

Article in *Herpetological Review* · January 2020

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FIG. 1. Four adult *Pantherophis spiloides* that died after entanglement in plastic mesh inside a storage building in Indiana, USA.

apparently too large (2 × 2 cm) to entrap the smaller snakes, but selective in entangling larger ratsnakes. The entrapment of four adult ratsnakes (including only a single female) in the bundle of mesh when other bundles were also present, suggests that some social factor could have been involved (e.g., males attracted to an entrapped female; Bonine et al. 2004. *Herpetol. Rev.* 35:176–177). Our observation adds to the list of species susceptible to the hazards of plastic mesh, even under storage conditions. The increasing frequency of reports of mesh-entangled snakes argues against the use of this hazardous material, and for regular monitoring of deployed and stored mesh to remove potential victims.

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PSEUDALSOPHIS ELEGANS RUFIDORSATUS (Guayaquil Racer). **DIET and REPRODUCTION.** The dipsadine genus *Pseudalsophis* contains ten diurnal species (Zaher et al. 2018. *Syst. Biodivers.* 16:614–642), nine of which are restricted to the Galapagos Islands (Zaher et al. 2018, *op. cit.*). The single mainland species, *P. elegans*, is distributed from Ecuador to Chile, through the coastal region (Peters and Orejas-Miranda 1970. *Catalogue of the Neotropical Squamata. Part I: Snakes.* U.S. Nat. Mus. Bull. 297. 347 pp.). Two subspecies are known, *P. e. rufodorsatus*, which is distributed from semi-arid areas near Guayaquil, Ecuador, to the Department of Ancash in Peru, and *P. e. elegans* which extends southward in the arid coastal region from the Rimac Valley in Lima to northern Chile (Schmidt and Walker 1943. *Zool. Ser. Field Mus. Nat. Hist. Chicago.* 24:297–327; Carrillo de Espinoza and Icochea 1995. *Publ. Mus. Hist. Nat. UNMSM [A]* 49:1–27). Information about the reproductive biology of *P. elegans* and its diet have never been reported. Herein, we report an item in the diet of *P. e. rufodorsatus* and some reproductive information.

On 27 February 1998, an adult female *P. e. rufodorsatus* was captured at km 4 on road Pimentel-Chiclayo (6.8106°S, 79.2386°W; WGS 84), Chiclayo Province, Lambayeque Department, Peru. It was kept in a terrarium and laid six eggs 4 days after capture. In the herpetological collection of the Centro de Ornitología y Biodiversidad (CORBIDI), Lima, Peru, we found a specimen of *P. e. rufodorsatus* (CORBIDI 07979: 76.4 cm SVL, 99.1 cm total



FIG. 1. *Pseudalsophis elegans* (CORBIDI 07979) and its partially digested prey, a lizard, *Dicrodon guttulatum*, from Tumbes, Peru.

length) with a prominent bulge mid-body. Dissection of the snake revealed an adult male *Dicrodon guttulatum* (190 mm SVL, 468 mm total length) inside, ingested headfirst, with the left arm and the head partially digested (Fig. 1). This snake was collected on 31 October 2010 in “Cerro Salvajal” (3.7891°S, 80.4958°W; WGS 84; 346 m elev.), road to Rica Playa, Tumbes Department, Peru. *Dicrodon guttulatum*, is a common lizard of the dry coasts of Ecuador and northern Peru. Adults are ca. 700 mm in length and are active during the day, when they dig extensive burrows in the sand (Carrillo de Espinoza 1970. *Publ. Mus. Hist. Nat. UNMSM [A]* 22:1–64).

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REGINA RIGIDA SINICOLA (= *LYODYTES RIGIDA SINICOLA*) (Gulf Glossy Crayfish Snake). **DIET and HABITAT.** *Regina rigida sinicola* is a small to moderate-sized natricine endemic to the Gulf Coast region of Florida, USA, west to Texas, and north through the Mississippi River valley to Arkansas. Here the snake inhabits wetland and riparian habitats and has long been known to associate with burrowing crayfish colonies (Gibbons and Dorcas 2004. *The North American Watersnakes: A Natural History.* University of Oklahoma Press, Norman, Oklahoma. 496 pp.). *Regina r. sinicola* feeds heavily on crayfishes, though its diet is more cosmopolitan than other members of the genera *Regina* and *Lyodytes* (Gibbons and Dorcas 2004, *op. cit.*). The literature historically simply reports “crayfish” in lieu of more specific information, even though within the range of this subspecies more than 50 unique crayfish taxa occur, with differing ecological modalities.

On 5 January 2020, while performing a survey for burrowing crayfishes, an adult female *R. r. sinicola* (37.2 cm SVL) was found dead on the ground amongst a burrowing crayfish colony in a right-of-way adjacent to a stream in Jefferson County, Alabama, USA (30.9993°N, 87.6009°W; WGS 84). Species composition of the crayfish colony consisted of *Lacunicambarus miltus* (Rusty Gravedigger) and *Creaserinus byersi* (Lavender Burrowing Crayfish), which was the dominant species. A large laceration was present on the dorsal surface of the snake, though no other injuries were present. A mass was present in the throat of the snake (Fig. 1A) which upon dissection was determined to be an intermolt adult Form II male *L. miltus* (20.2 mm total carapace length, 43.2 mm total body length; Fig. 1B, C).

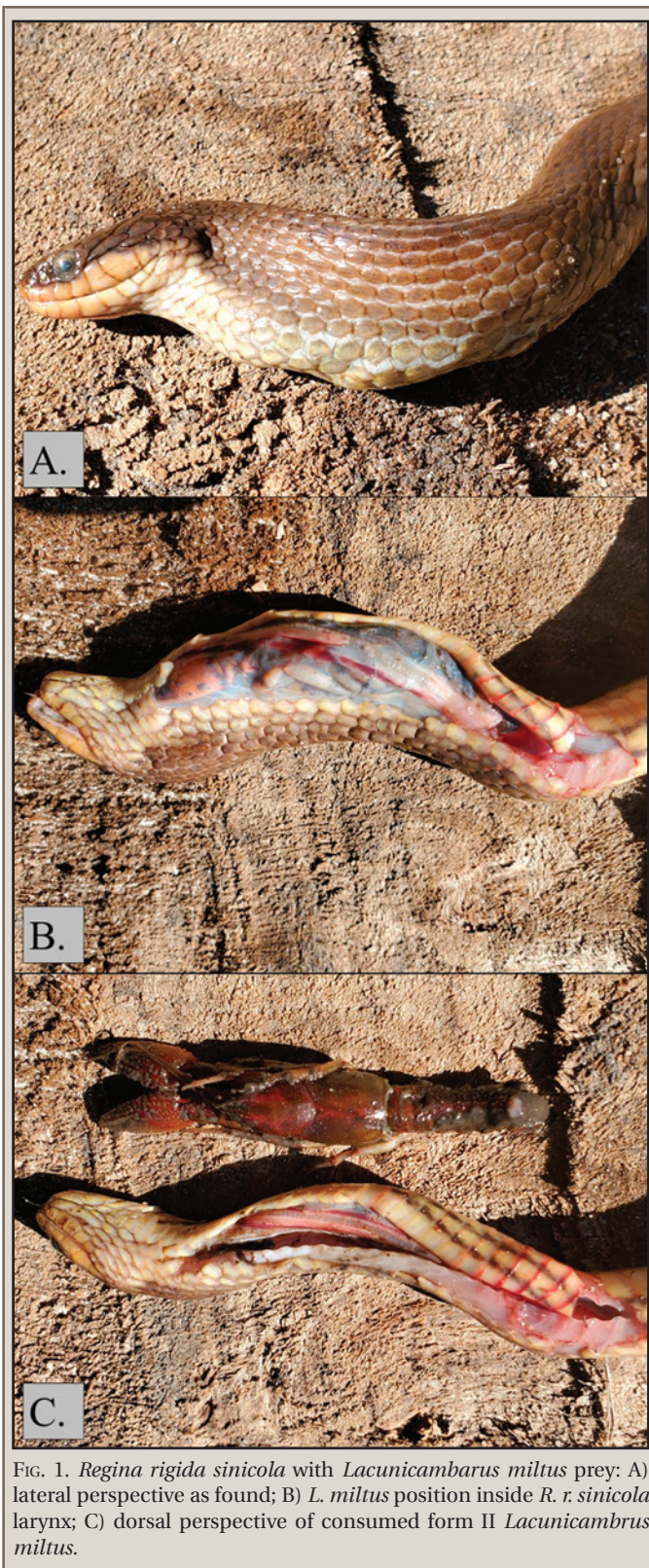


FIG. 1. *Regina rigida sinicola* with *Lacunicambarus miltus* prey: A) lateral perspective as found; B) *L. miltus* position inside *R. r. sinicola* larynx; C) dorsal perspective of consumed form II *Lacunicambarus miltus*.

The crayfish was positioned in the snake's esophagus with the chelae oriented towards the mouth, and the abdomen oriented towards the stomach; the abdomen was also wrapped under the carapace of the crayfish (Fig. 1B). How and when the snake encountered the crayfish is unknown, though possibilities include capturing the crayfish at the entrance to its burrow, within the burrow, or on the surface if the crayfish was beyond

the protection of its burrow. When found, the snake had not developed rigor mortis and was still pliable.

Another discovery further linked *R. r. sinicola* to burrowing crayfishes within its range. During excavation of *Creaserinus danielae* (Speckled Burrowing Crayfish) burrows, a juvenile *R. r. sinicola* was extracted and later released from an uncapped crayfish burrow (6 January 2020; roadside ditch adjacent to Barrington Park, Escambia County, Florida, USA; 30.3702°N, 87.5372°W). Although no crayfish was captured in the burrow, *C. danielae* were the only crayfishes collected from several surrounding burrows. The snake was encountered 5 cm from the burrow portal, and upon discovery attempted escape into deeper regions of the burrow. Given that both of these observations occurred between *R. r. sinicola* and *Creaserinus* spp. it is possible that an ecological association between these two taxa exists that is worthy of future investigation.

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SALVADORA DESERTICOLA (Big Bend Patch-nosed Snake). **DIET.** On 26 June 2020, 5.6 km W of the Rio Grande Village Visitor Center in Big Bend National Park, Brewster County, Texas, USA (29.19611°N, 103.00357°W; WGS 84), we collected a DOR *Salvadora deserticola*. The snake (545 mm SVL) was dissected and found to contain a partially digested *Aspidoscelis marmorata* (Marbled Whiptail; 50 mm SVL). *Salvadora deserticola* is a known predator of lizards; however, specific reports of wild captured prey are uncommon (Degenhardt et al. 1996. Amphibians and Reptiles of New Mexico. The University of New Mexico Press, Albuquerque, New Mexico. 301 pp.; Ernst and Ernst 2003. Snakes of the United States and Canada. Smithsonian Institution Press, Washington D.C. 308 pp), and to our knowledge include only *A. exsanguis* (Chihuahuan Spotted Whiptail; Gatica-Colima and Córdova-Reza 2012. Herpetol. Rev. 43:350–351) and *A. tessellata* (Common Checkered Whiptail; Barker and Sawyer 2011. Herpetol. Rev. 42:304). This is the first report of predation on *A. marmorata* by *S. deserticola* in the wild. Both specimens were collected under Big Bend National Park permit #BIBE-2019-SCI-0018 and preserved in the Sul Ross State University James F. Scudday vertebrate collections as SRSU 7404.

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SINOMICRURUS MACCLELLANDI IWASAKII (Iwasaki's Coral Snake). **DEFENSIVE BEHAVIOR and DIET.** *Sinomicrurus macclellandi iwasakii* is a rare subspecies endemic to the Ishigaki and Iriomote islands of the Yaeyama Group, Ryukyu Archipelago, Japan. This subspecies is reported to feed on small snakes (Ota 2014. In Ministry of the Environment of Japan [eds.], Red Data Book 2014. Threatened Wildlife of Japan, Vol 3, Reptilia/Amphibia, pp. 66–67. GYOSEI Corporation, Tokyo [in Japanese]), but information on its food habits and behavior is quite limited. Here, we report four observations of defensive behaviors and also provide diet information for this snake.

On 7 May 2017, in heavy rain, at 0015 h, we found a male *S. m. iwasakii* (Kyoto University, Graduate School of Human and