bird’s beak. A few minutes later, the bird finished eating the snake and flew away from the site.

Members of the family Momotidae feed on insects and small vertebrates (Lovette and Fitzpatrick 2016. Handbook of Bird Biology. Third edition. John Wiley & Sons, Chichister, West Sussex. 736 pp.). Some species have been recorded preying on herpetofauna, such as Baryphthengus marri (Master 1999. Wilson Bull. 111:439–440) and Eumomota superciliosa (Ortiz-Lachica et al. 2017. Meso-am. Herpetol. 4:630–631). To our best knowledge, this observation represents the first record of predation on *T. canula*.

**PEDRO E. NAHUAT-CERVERA**, Eknell Peninsula de Yucatán. Calle 52, 670, C.P. 97000, & Asociación Juvenil de Ciencia Yucatán. Calle 35-C x 60, Fraccionamiento Colonia Buenavista, C.P. 97215, Mérida, Yucatán, México (e-mail: pedro.nahuat4@gmail.com); **FLOR PERAZA-ROMERO**, Campus de Ciencias Biológicas y Agropecuarias, Universidad Autónoma de Yucatán, Km 15.5 carr. Mérida-Xmatkuil, C.P. 97315 Mérida, Yucatán, Mexico, (e-mail: flor.peraza26@gmail.com); **J. ROGELIO CEDENO-VÁZQUEZ**, El Colegio de la Frontera Sur, Departamento de Sistematica y Ecología Acuática, Av. Centenario Km 5.5, C.P. 77014 Chetumal, Quintana Roo, México, (e-mail: rcedeno@ecosur.mx).


At 1400 h on 1 March 2020 under cool, cloudy skies, RWH and RS encountered an adult female *Thamnophis elegans terrestris* (ca. 70 cm TL) in the process of ingesting an adult California newt (*Taricha torosa*; Fig. 1) along San Carpofooro Creek in San Luis Obispo County, California, USA. Under normal conditions, the snake would have fled as we approached, but in this case she remained motionless. After a short period of observation, we moved on but marked the location for later examination. We returned to the spot ca. 30 min later and observed that the snake had not moved. Suspecting TTX-induced impairment given that the snake's body showed no signs of injury, we touched the snake's tail to check for paralysis. The snake responded by slowly moving its tail but was unable to crawl or otherwise move its body. We then noticed a food bolus that most likely was another adult newt ingested earlier (Fig. 2).

Given that the snake was a full-grown adult living in an area with an abundant newt population, it seems likely that newts have been part of this snake's diet. Newts from this area contain 0.1–0.3 mg of TTX (mean = 0.13 mg of TTX; Hanifin et al. 2008, op. cit.), only enough to reduce the sprint speed of a sympatric *T. sirtalis* to 85% of its baseline speed (Brodie et al. 2002, op. cit.), but enough to reduce the crawl speed of a sympatric *T. elegans* to 50% or more of its normal ability (Feldman et al. 2009, op. cit.). Based on this, we
suggest that the snake observed here was experiencing the sub-lethal effects of TTX and that the impairment eventually subsided, and the snake fully recovered. We cannot speculate on the duration of the snake’s immobility and thus exposure to predators (or the elements), but lab studies show that recovery in T. sirtalis generally occurs within 1 to 3 h (Williams et al. 2003. Herpetologica 59:153–163), though some snakes remain impaired for over 7 h (Brodie and Brodie 1990, op. cit.). This observation is noteworthy because it is the first to document predation by T. elegans on metamorphosed Taricha in the wild and suggests yet a fourth snake species may be engaged in the complex arms-race with newts.

CHRIS R. FELDMAN, Department of Biology, University of Nevada Reno, Reno, Nevada 89557, USA, (e-mail: ophis@unr.edu); ROBERT W. HANSEN, Museum of Vertebrate Zoology, University of California, Berkeley, California 94720, USA, and 16333 Deer Path Lane, Clovis, California 93619, USA (e-mail: hansenranch2@gmail.com); RYAN SIKOLA, Oceano, California, USA.

VIPERA ASPIS HUGYI (Southern Italian Asp). COLORATION. Vipera aspis is a polytypic species for which four subspecies are currently recognized: V. a. aspis, V. a. francisciredi, V. a. hugyi, and V. a. zinnikeri (Golay et al. 2008. Amphibia-Reptilia 29:71–83; Di Nicola et al. 2010. Anfibì & Rettili d’Italia. Edizioni Belvedere, Latina, Italy. 568 pp.). The polymorphism level is high in all subspecies, with dorsal ground hues usually varying from light grey to brown or reddish. The most common dorsal pattern is the blotched morph and varies in the different subspecies with more or less separated blotches of variable size (V. a. aspis and V. a. francisciredi), variably thick zig-zag band (V. a. aspis and V. a. zinnikeri) or elliptical, roundish or quadrangular shapes (V. a. hugyi; Zwahlen et al. 2012. 7th World Congress of Herpetology, Vancouver, Canada. 739 pp.; Di Nicola et al. 2019, op. cit.). Melanistic individuals are known for all V. aspis subspecies (Bruno 1976. Atti Soc. Ital. nat. Museo civ. Stor. nat. Milano. 117:165–194; Bruno 1985. Le vipere d’Italia e d’Europa. Edagricole, Milan, Italy. 278 pp.; Brodmann 1986. Die giftschlanger Europas und die gattung Vipera in Afrika und Asien. Kümmery + Frey, Bern, Switzerland. 148 pp.), even though they are only rarely reported for V. a. hugyi (Di Nicola and Meier 2013. Herpetol. Rev. 44:698). A rarer condition is the patternless or concolor morph (showing no or greatly reduced dorsal pattern), which is well known for the nominate subspecies (Mebert et al. 2011. Elaphe 1:9–13; Tessa 2016. Atti XI Congresso Nazionale della Societas Herpetologica Italica, Trento 2016) and poorly reported for V. a. zinnikeri (De Smedt 2006. The Vipers of Europe. – Eigenverlag, Halblech, Germany. 340 pp.; K. Mebert, pers. comm.). This color morph was also observed on a putative hybrid between the latter subspecies and V. latastei (Zuazo et al. 2019. Bol. Asoc. Herpetol. Esp. 30:35–41) and was reported in a generic way for V. a. francisciredi (De Smedt. 2006, op. cit.). The adaptive function of the concolor morph still requires further investigation (Zwahlen et al. 2012, op. cit.; Tessa 2016, op. cit.) although several hypotheses have already been proposed (see Dubey et al. 2015. BMC Evol Biol 15:99).

Vipera aspis hugyi is endemic to southern Italy, being distributed in central and southern Campania, Apulia and Basilicata (excluding the northernmost portions), Calabria, Sicily and on Montecristo Island (where it was introduced in historical times; Masseti and Zuffi 2011. Br. Herpetol. Bull. 27:1–9; Di Nicola et al. 2019, op. cit.). On 29 May 2019, at 1129 h, an adult patternless V. a. hugyi was observed in the territory of Noto, Province of Siracusa, Sicily, Italy (36.96°N, 14.93°E; 520 m asl), by some forest workers who photographed (Fig. 1), filmed, and then let the snake go. The individual had a totally uniform light brown dorsal color; unfortunately, no detailed images of the head and belly are available. The snake was found moving in a small grassy clearing, located on the edge between a pine reforestation and a garrigue with scattered bushes and rocky outcrops. The authors did not have the opportunity to personally examine the snake, but the morphological evaluation of the animal habitus and the finding point leave no doubts about the reliability of the observation and the subspecific identity of the individual. This report constitutes the first observation of patternless morph in V. a. hugyi. Further field investigation will be useful to check if it is an isolated case or if this morph can be locally widespread, as happens in other asp populations (Mebert et al. 2011, op. cit.)

We are grateful to Nunzia Bennardo and Vincenzo Lombardo for providing us photographs and information about the viper observation, Sebastian Colnaghi for putting us in contact with the forest workers, and Salvatore Russotto for his communications.

MATTEO R. DI NICOLA, Via Bobbio, 20144 – Milan, Italy (e-mail: matteodinicolal86@libero.it); FRANCESCO P. FARONE, Viale Regione Siciliana S.E., Palermo, Italy.

XENOCHROPHIS TRIANGULIGERUS (Triangle Keelback). DIET and FEEDING BEHAVIOR. The diet of Xenochrophis trianguligerus, a widespread aquatic natricine, has been reported to include frogs, including frogspawn and tadpoles (e.g., Stuebing and Inger 1999. A Field Guide to the Snakes of Borneo. Natural History Publications (Borneo), Kota Kinabalu, Malaysia. 262 pp.), and fish (Das 2010. A Field Guide to the Reptiles of South-East Asia. New