

This is also the first known instance of colubrid predation on *V. nebulosus*, whose biology is poorly studied. This monitor is an adept climber and especially juveniles and sub-adults are arboreal, using cavities in trees for hiding during the day and sleeping at night (Manthey and Grossmann 1997, *op. cit.*; Grismer 2011. Lizards of Peninsular Malaysia, Singapore and their Adjacent Archipelagos. Edition Chimaira, Frankfurt am Main. 728 pp.; HB, unpubl. data). Under such circumstances *B. dendrophila* s.l. may prey nocturnally on young *V. nebulosus*.

**HENRIK BRINGSØE**, Irisvej 8, DK-4600 Køge, Denmark; e-mail: bringsoe@email.dk.

**BOTHROPS AMMODYTOIDES (Yararáñata). DIET.** *Bothrops ammodytoides* is a medium-sized pitviper endemic to Argentina that inhabits arid and semiarid rocky and sandy areas from sea level to more than 3000 m (Carrasco et al. 2010. Amphibia-Reptilia 31:323–338). The diet of this species is known to include small vertebrates such as lizards and less commonly, rodents (Ceí 1993. Reptiles del Noroeste, Nordeste y Este de Argentina. Herpetofauna de las Selvas Subtropicales, Puna y Pampas. Mus. Reg. Sci. Nat. Torino. 945 pp.; Martins et al. 2002. In Schuett et al. [eds.], The Biology of Pitvipers, pp. 307–308. Eagle Mountain Publishing, Eagle Mountain, Utah; Gomez Ales et al. 2013. Herpetol. Rev. 44:157). Here, we report predation on *Stenocercus pectinatus* by *B. ammodytoides*.

At 1930 h on 17 December 2019, we found a subadult of *B. ammodytoides* that had died while eating an *S. pectinatus* (Fig. 1) in the southern part of Mendoza province, Argentina (35.9663°S, 66.9405°W; WGS 84), corresponding to the Monte Desert ecoregion. The habitat was semiarid *Hyalis argentea* grasslands, with only a few bushes and small trees, like Caldén trees (*Prosopis caldenia*) and Chañar (*Geoffroea decorticans*). The cause of the snake's death was not clear, but it could have been killed by a predator while eating its prey or suffocated during ingestion.



FIG. 1. Dorsal view of the *Bothrops ammodytoides* preying upon a *Stenocercus pectinatus*.

**UNAI SANTAMARIA ZALDUA**, Centro para el Estudio y Conservación de las Aves Rapaces en Argentina (CECARA), Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa, Avenida Uruguay 151, (6300) Santa Rosa La Pampa, Argentina (e-mail: usantamaria005@gmail.com); **MIGUEL ANGEL SANTILLAN**, Museo Provincial de Historia Natural, Secretaría de Cultura, Gobierno de La Pampa, Pellegrini 180, (6300) Santa Rosa, La Pampa, Argentina (e-mail: rapacero@yahoo.com.ar); **JOSE**

**HERNAN SARASOLA**, Centro para el Estudio y Conservación de las Aves Rapaces en Argentina (CECARA), Facultad de Ciencias Exactas y Naturales, Universidad Nacional de La Pampa, Avenida Uruguay 151, (6300) Santa Rosa La Pampa, Argentina (e-mail: jhsarasola@hotmail.com).

**BOTHROPS ASPER (Terciopelo). DIET/OPHIOPHAGY.** The diet of young *Bothrops asper* consists of anurans, lizards, and arthropods, while adults feed primarily on small mammals, such as rodents and opossums (Savage 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna between Two Continents, between Two Seas. University of Chicago Press, Chicago, Illinois. 934 pp.). Sasa et al. (2009. Toxicon 54: 904–922) provide a detailed analysis of the euryphagous diet of this species, adding birds and snakes. To date, known snake prey of *B. asper* include *Erythrolamprus bizona*, *Ninia sebae*, *Ninia atrata*, and cases of cannibalism in juveniles (Buttenhoff and Vogt 1995. Herpetol. Rev. 26:146–147). Mendoza-Roldan and Lucero (2011. Herpetotropicos 5:107–109) further register a juvenile *B. asper* preying on a neonate *Porthidium lansbergii* in the dry forest of northern Colombia. Herein, we report two other species of snakes in the diet of *B. asper*.

On 22 April 2020, at 1430 h, in the Isthmian Pacific moist forest region of San Josecito, Uvita, Puntarenas, San José Province, Costa Rica (9.2253°N, 83.7312°W; WGS 84; 391 m elev.), a dead *B. asper* was found in a stream. While clearing away the decomposing snake (ca. 92 cm total length [TL]) with a snake hook, the venter ripped and an ingested snake was observed. After a closer look and a few photographs, the ingested snake was



FIG. 1. Subadult female of *Bothrops asper* and ingested *Tantilla supracincta* from Costa Rica.



FIG. 2. *Bothrops asper* feeding on *Dipsas andiana* in Ecuador.

identified as *Tantilla supracincta*. The relatively well-preserved *T. supracincta* (ca. 36 cm TL) was removed (Fig. 1) and stored in alcohol.

At 2230 h on 20 March 2017, JAGR was called to a case of *B. asper* (ca. 70–80 cm TL) feeding on *Dipsas andiana* (Fig. 2) during a heavy rain at Reserva forestal “El Jardín de los Sueños”, La Maná, Cotopaxi, Ecuador (0.8379°S, 79.2055°W; WGS 84). The snake was on the trail in an open area bordered by fruit tree plantation and secondary forest. Though rarely seen and difficult to be observed given their frequent nocturnal activity, ophiophagy by *B. asper* may be more common than previously recognized.

**BRONISLAVA GABRYSOVA**, Podnadrzani 6, Prague 9, 190 00, Czech Republic (e-mail: gabrysovab@gmail.com); **JAVIER AZNAR GONZÁLEZ DE RUEDA**, Calle Uruguay 16, 28016, Madrid, España (e-mail: javiaznar89@gmail.com); **CÉSAR L. BARRIO-AMORÓS**, Doc Frog Expeditions/CRwild, Uvita, Puntarenas, Costa Rica (e-mail: cbarrioamoros@crwild.com).

**BOTHROPS ATROX (Amazonian Lancehead). REPRODUCTION.** *Bothrops atrox* is a medically important viperid snake widely distributed in the Amazonian biome (Ferreira et al. 2009. Rev. Soc. Bras. Med. Trop. 42:329–335; Fraga et al. 2013. Guia de Cobras da Região de Manaus – Amazônia Central. Editora INPA, Manaus, Brazil. 303 pp.). Little has been published regarding the reproductive biology of *B. atrox* (Bisneto and Kaefer 2019. Acta Amazonica 49:105–113). Herein, we provide data on clutch size and neonate size of *B. atrox* from the eastern Amazon region of Brazil.

On 17 October 2013, during a herpetological survey in the Reserva Extrativista Beija-Flor-Brilho-de-Fogo (0.8044°N, 52.2126°W; WGS 84; 98 m elev.), Municipality of Pedra Branca do Amapari, Amapá, Brazil, we found an adult female *B. atrox* on the west bank of the Igarapé Agua Fria. The female (1230 mm SVL, 80 mm tail length) gave birth to 21 neonates in the wild. The mean measurements ( $\pm 1$  SD) of the 21 neonates were 239 ( $\pm 4.4$ ) mm SVL (range: 236–242 mm). Our observations may strengthen the suggestion of a seasonal reproductive cycle with extended vitellogenesis and ovulation, and oviposition occurring at the end of the dry season with recruitment of juveniles during warmer months (see Silva et al 2019. Herpetologica 75:198–207). Observations of reproductive events in nature is rarely seen in neotropical snakes because of generally low encounter rates for many species. After birth in the wild, the female and neonates *B. atrox* specimen were collected and deposited in the Herpetological Collection of the Universidade Federal do Amapá (CECC).

**RODRIGO TAVARES-PINHEIRO** (e-mail: rodrigotmcp@gmail.com), **FERNANDA SOUZA MELO** (e-mail: cambraiananda@gmail.com) and **CARLOS E. COSTA-CAMPOS**, Universidade Federal do Amapá, Departamento de Ciências Biológicas e da Saúde, Laboratório de Herpetologia, Campus Marco Zero do Equador, 68903-419, Macapá, Amapá, Brazil (e-mail: eduardocampos@unifap.br).

**BUNGARUS CANDIDUS (Malayan Krait). PREDATION ATTEMPT BY CENTIPEDE.** Centipedes of the genus *Scolopendra* have been documented feeding on a wide range of prey from insects to small mammals, birds, and reptiles (Guizze et al. 2016. Zoologia 33:1–7). We present the first direct observation of a predation attempt of a *Scolopendra subspinipes* (ca. 16 cm total length) on a mobile subadult *Bungarus candidus* (75.8 cm SVL, 60.8 g).

At 2351 h on 4 October 2015, a subadult *B. candidus* was observed in an area of mixed deciduous forest at the Sakaerat Environmental Research Station, Nakhon Ratchasima Province, Thailand (14.51350°N, 101.93246°E; WGS 84; 360 m elev.). The snake was in leaf litter ca. 1 m from a well-trodden path, moving

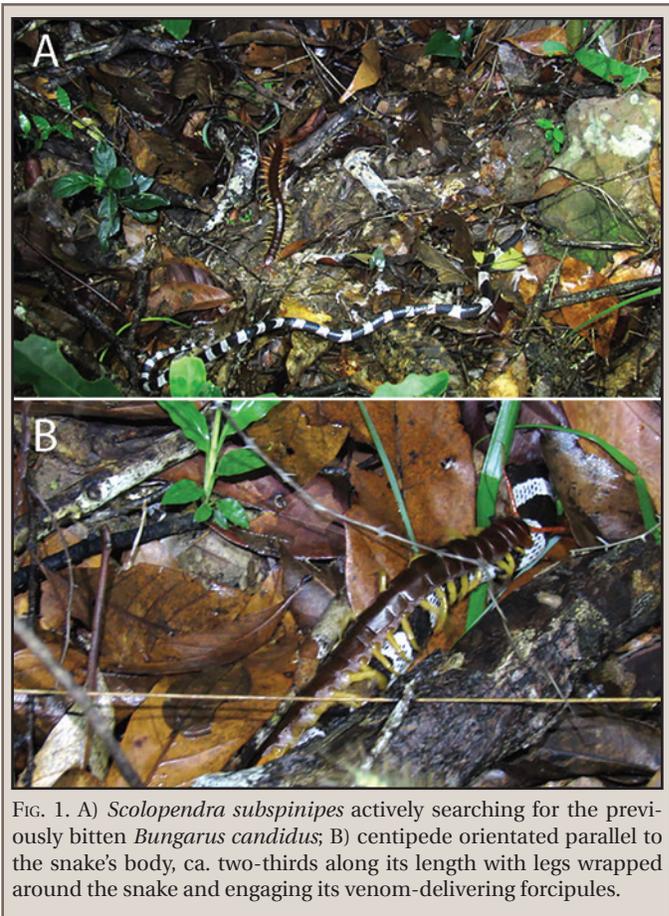


FIG. 1. A) *Scolopendra subspinipes* actively searching for the previously bitten *Bungarus candidus*; B) centipede orientated parallel to the snake's body, ca. two-thirds along its length with legs wrapped around the snake and engaging its venom-delivering forcipules.

slowly. Closer inspection revealed a *S. subspinipes* mounted dorsally on the snake, orientated parallel to the snake's body, ca. two thirds along its length from the head. The centipede had grasped the snake with its legs and engaged its forcipules. As the *B. candidus* continued to move through the leaf litter, we attempted to remove ground debris to better observe the event. However, due to our efforts the *S. subspinipes* released the snake.

Following the initial observed interaction, the snake remained motionless in a clear area, while the *S. subspinipes* actively searched for the snake through the leaf litter (Fig. 1A). As it approached, the *B. candidus* attempted to move away, but before it could do so the *S. subspinipes* re-located the snake. The centipede once more orientated itself parallel to the snake's body in the same location ca. two thirds along its length, wrapped its legs around the snake, and engaged its venom-delivering forcipules (Fig. 1B). No attempt was made to remove any further leaf litter as the snake moved off, however, as the centipede reoriented itself the *B. candidus* moved beneath a small fallen branch, which dislodged the *S. subspinipes*. The centipede once again attempted to re-locate the *B. candidus*, but the snake moved quickly away. The snake was monitored until it was ca. 10 m from the location of the incident, while the centipede remained at the same site searching for the snake. Once we were certain that any potential for the *S. subspinipes* to re-locate it was gone, we captured the *B. candidus* to take measurements and assess any potential effects on the snake due to envenomation. Centipede length was estimated through photographic comparison to the measured length of the snake, and it was determined to be *S. subspinipes* as it is the only species in Thailand having uniformly brown coloured tergites, without the presence of a transverse black or pigmented band posteriorly.