

pharmaceutical services, and supplies. The field study is conducted under Arizona Game and Fish Department Scientific Collecting License #SP646676 (MDC) and is approved by San Diego State University's Institutional Animal Care and Use Committee.

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**CROTALUS ORNATUS (Eastern Black-tailed Rattlesnake). FEEDING BEHAVIOR.** *Crotalus ornatus* was recently re-validated as a species (Anderson and Greenbaum 2012. *Herpetol. Monogr.* 26:19–57); thus, the diet and feeding behavior of the species is poorly known. It is thought that the diet of *C. ornatus* closely resembles that of former conspecific *C. molossus*, which primarily feeds on small mammals, with lizards, snakes, anurans, birds, and insects being consumed occasionally (Ernst and Ernst 2003. *Snakes of the United States and Canada*. Smithsonian Institution Press, Washington D.C. 668 pp.). Additionally, there are no reports on the seasonality of feeding behavior for *C. ornatus*, but *C. molossus* in the Chiricahua Mountains of southeast Arizona, USA, is reported to feed from late March until late November or early December, after which a period of winter inactivity begins (Greene et al. 2002. *In* Schuett et al. [eds.], *Biology of the Vipers*, pp. 179–205. Eagle Mountain Publishing, Eagle Mountain, Utah). Here, we report feeding of *C. ornatus* in late February at a site in the northern Chihuahuan Desert, in the Trans-Pecos ecoregion of Texas, USA, which to our knowledge, represents the earliest known observation of feeding for either species of Black-tailed Rattlesnake in the USA.

On 23 February 2018, at 1406 h, an adult female *C. ornatus* (925 mm SVL, 410 g), fitted with a radio-transmitter (Holohil Ltd. SI-2), was being monitored at the Indio Mountains Research Station, Hudspeth County, Texas, USA (30.75451°N, 105.02051°W; WGS 84; 1214 m elev.), in an area of rocky slope habitat with a vegetative community consisting of typical Chihuahuan Desert scrub. The snake was situated under a large rock, in a loose resting coil, with the posterior portion of her body extended near the cavity opening, partially exposed to the sunlight; a large food bolus from a recent meal was readily visible (Fig. 1). At the time of the observation, the internal body temperature of the snake was ca. 34.4°C, air temperature was 27.2°C, ground temperature



FIG. 1. Adult female *Crotalus ornatus* resting in a cavity under a rock with a large food bolus from a recent meal visible, at the Indio Mountains Research Station, Hudspeth County, Texas, USA, on 23 February 2018.

in the sun at the cavity entrance was 41.8°C, and ground temperature in the shade adjacent to the food bolus was 21.8°C. The snake was left undisturbed following the observation.

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**CUBOPHIS VUDII VUDII (Bahamian Racer). DIET.** *Cubophis vudii* is a medium to large sized colubrid endemic to The Bahamas where it inhabits xeric areas including pine woods, mangroves, scrublands, and lawns (Henderson and Powell 2009. *Natural History of West Indian Reptiles and Amphibians*. University of Florida Press, Gainesville, Florida. 520 pp.). Five geographically separated subspecies are currently recognised across the Bahamian archipelago with the subspecies *C. vudii vudii* only found on Andros, New Providence, Berry Islands, Cat Island, Long Island, Ragged Island, Great Exuma and Eleuthera (Powell 2014. *Cat. Am. Amphib. Rept.* 903:903.1–903.15). This diurnal oviparous species feeds primarily on lizards and frogs but occasionally its diet includes rodents and birds (Henderson and Sajdak 1996. *In* Powell and Henderson [eds.], *Contributions to West Indian Herpetology: A Tribute to Albert Schwartz*, pp. 317–326. *Contributions to Herpetology*, Vol. 12, Society for the Study of Amphibians and Reptiles, Ithaca, New York). Furthermore, as *C. v. vudii* is a largely terrestrial species and only occasionally moves off the ground into lower vegetation (Schwartz and Henderson 1991. *Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History*. University of Florida Press, Gainesville, Florida. 720 pp.), we would assume that *C. v. vudii* would only be able to prey upon birds that are caught on the ground or in low vegetation. As a result, we expect that bird predation by *C. vudii* is an uncommon occurrence. Indeed, there is only one published report that describes a predation event of *C.*



FIG. 1. *Cubophis vudii vudii* constricting and ingesting a fledgling *Mimus polyglottos* in The Bahamas.

*vudii* on a bird and this study was also unable to identify the prey species (Henderson and Sajdak 1996, *op. cit.*). Here, we report a predation event of *C. v. vudii* on a fledgling *Mimus polyglottos* (Northern Mockingbird) further supporting the hypothesis that *C. vudii* primarily preys on birds that are caught on the ground or in low vegetation.

On 5 July 2019, at 1646 h, one of the authors witnessed an adult-sized *C. v. vudii* catching and ingesting a fledgling *M. polyglottos* (Fig. 1). Prior to the attack, the bird had fallen out of a tree and landed on the ground, potentially as a result of the fledgling practicing to fly. Upon falling out of the tree, the bird was immediately approached by the snake. Following a strike to the upper body, *C. v. vudii* wrapped two coils around the bird to fixate it. It then ingested the bird headfirst while it still showed signs of vitality, breathing and calling. A video of the predation event can be seen at <https://doi.org/10.5281/zenodo.3554496>.

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**CYCLOPHIOPS SEMICARINATUS (Ryukyu Green Snake). ARBOREALITY.** *Cyclophiops semicarinatus* is a diurnal terrestrial species commonly found in montane forest and grassland in the Ryukyu Archipelago, Japan (Nakamura and Ueno 1963. Japanese Reptiles and Amphibians in Color. Hoiku-sha, Osaka, Japan. 214 pp.; Nakachi 1995. Jpn. J. Herpetol. 16:1–6). This species is known to feed mainly on earthworms (Takara 1962. Sci. Bull. Division Agr. Home Econ. Engineering, Univ. Ryukyu 9:1–202). However, behavioral and ecological information on the species is limited. Here, we report a case of arboreal habitat use by *C. semicarinatus*.

On 1 November 2019, at 0017 h (air temperature = 19.8°C), in Hentona, Kunigami-son, Kunigami-gun, Okinawa Prefecture, Japan (26.7332°N, 128.1875°E; WGS 84; 203 m elev.), we found a male *C. semicarinatus* (911 mm SVL, 191 mm tail length) on a branch of a pine tree (*Pinus luchuensis*) 7 m above the ground. When found, the snake was lying motionless on the branch in a loose coil and was assumed to be sleeping. The snake was released after measurement and examination of the stomach contents (none found).

To our knowledge, this is the first report of arboreal habitat use by *C. semicarinatus*. Arboreal resting at night has been reported for its congener *C. major* (Chinese Green Snake; Xiang and Li 2009. Colored Illustrations of Amphibians and Reptiles of Taiwan. Huayu Nature Book Trade Co. Ltd., Beijing, China. 336 pp.) and arboreal habits have also been reported for *C. doriae* (Doria's Green Snake; Das 2010. A Field Guide to the Reptiles of South-East Asia. New Holland Publishers Ltd., London, UK. 376 pp.). Recent publications have revealed that several species of *Cyclophiops* are phylogenetically nested within the genus *Ptyas* (Figuroa et al. 2016. PLoS ONE 11:e0161070; Meetei et al. 2018. Zootaxa 4457:537–548). In this genus, several species are also known for resting on trees at night (Charlton 2019. A Guide to Snakes of Peninsular Malaysia and Singapore. Natural History Publications, Kota Kinabalu, Sabah. 300 pp.; Chan-ard et al. 2015. A Field Guide to the Reptiles of Thailand. Oxford University Press,

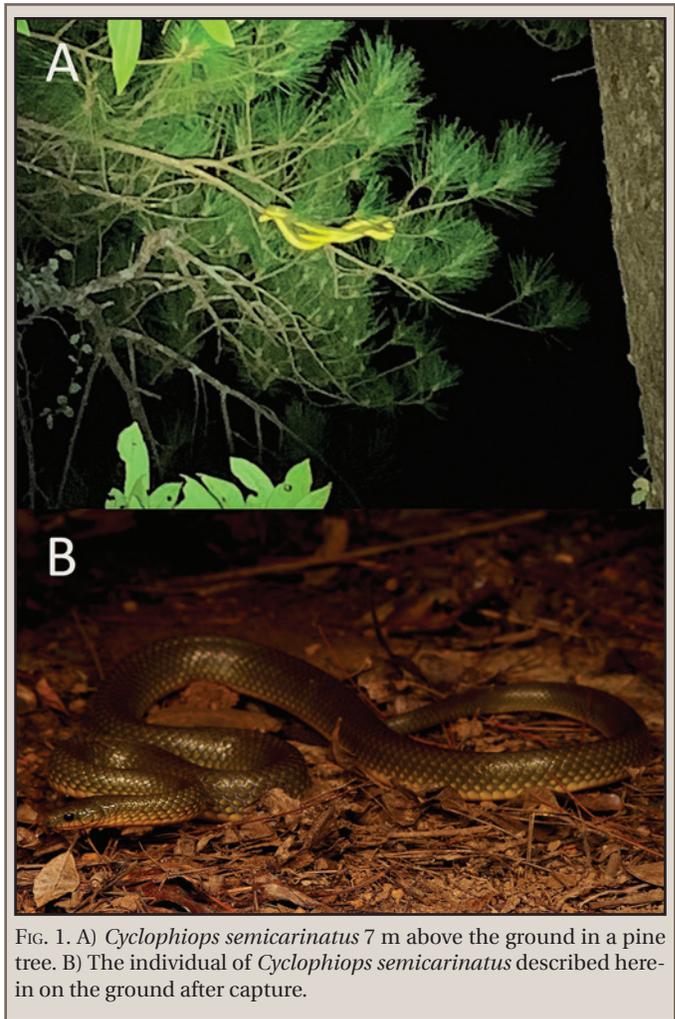


FIG. 1. A) *Cyclophiops semicarinatus* 7 m above the ground in a pine tree. B) The individual of *Cyclophiops semicarinatus* described herein on the ground after capture.

New York, New York. 352 pp.). We assume that *C. semicarinatus* uses arboreal habitats more often than previously recognized.

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**DENDRELAPHIS NGANSONENSIS (Nganson Bronzeback). DIET.** *Dendrelaphis ngansonensis* is known to occur from Yunnan and Hainan, China (Nicodemo and Bain 2007. Herpetol. Rev. 38:355) and central and north Vietnam to Laos, southwest Cambodia, and southeastern Thailand (Neang et al. 2015. Cambodian J. Nat. Hist. 2015:172–182). This oviparous, arboreal species has been reported from primary and secondary forest, where it is thought to be diurnal and to feed on small vertebrates (Neang et al. 2012. The IUCN Red List of Threatened Species 2012:e.T192029A2030499). Here, we report the predation of an adult *Rhacophorus kio* (Black-webbed Treefrog) by an adult *D. ngansonensis*.

At 1100 h on 6 April 2016 (air temperature = 24.1°C, humidity = 81%), near the Bach Van Pagoda (16.19617°N, 107.84740°E; WGS 84; 1150 m elev.) within Bach Ma National Park, Phu Loc District, Thua Thien-Hue Province, central Vietnam, we observed a *R. kio* being eaten by a *D. ngansonensis* (Fig. 1). The frog was struck and held by the *D. ngansonensis* when the frog was sitting