PHOTO BY OSCAR CID-MORA

FIG. 1. *Boa imperator* eating *Sciurus yucatanensis* in Quintana Roo, México.

PHOTO BY ERIC LEMOS KRÜGER

FIG. 1. Adult *Chironius bicarinatus* preying on a *Boana albomarginata*, which was displaying defensive behaviors (e.g., inflating its body) in São Paulo, Brazil.

of prey, including frogs (Pérez-Higareda et al. 2007. Serpientes de la Región de los Tuxtlas, Veracruz, México. Guía de Identificación Ilustrada. México D.F. Universidad Nacional Autónoma de México. 189 pp.), saurians (e.g., Cid-Mora and Vásquez-Cruz 2020. Herpetol. Rev. 51:341), and birds (e.g., Pavón-Vázquez et al. 2016. Mesoamer. Herpetol. 3:490–492), but mainly small and medium-sized mammals (e.g., Pérez-Alvarado et al. 2021. Rev. Latinoamer. Herpetol. 2:91–93).

At 1455 h on 23 August 2020, OCM encountered a subadult *B. imperator* preying on a *Sciurus yucatanensis* (Yucatan Squirrel; Fig. 1) near a beach in Xel-Há park in the Municipality of Solidaridad, Quintana Roo, Mexico (20.31669°N, 87.35422°W; WGS 84; 5 m elev.). The snake swallowed the prey alive starting from the head. To our knowledge, this represents the first record of *S. yucatanensis* in the natural diet of *B. imperator*.

OSCAR CID-MORA, Colegio de Postgraduados Campus Córdoba. Carretera Federal Córdoba-Veracruz Km 348, Congregación Manuel León, Amatlán de los Reyes, Veracruz, 94946, México (e-mail: racso10390@gmail.com); **VÍCTOR VÁSQUEZ-CRUZ**, PIMVS Herpetario Palancoatl, Avenida 19 número 5525, Colonia Nueva Esperanza, Córdoba, Veracruz, Mexico (e-mail: victorbiolvc@gmail.com).

***CHIRONIUS BICARINATUS* (Two-headed Sipo). DIET.** *Chironius bicarinatus* is a large colubrid snake, which is distributed along the Atlantic coast of Brazil, occurring from Ceará to northern Rio Grande do Sul. It is present, but apparently less common, in areas of the interior of Brazil, with the westernmost record reported for Coxim, Mato Grosso do Sul (Entiauspe-Neto et al. 2020. Herpetol. Monogr. 34:98–115). This species has semi-arboreal habits, with its diet composed predominantly of birds, amphibians, and lizards. It has the habit of descending to the ground but returning to the branches at the first sign of danger (Marques and Sazima 2004. *In* Marques and Duleba [eds.], Estação Ecológica Juréia-Itatins: Ambiente Físico, Flora, Fauna, pp. 257–277. Holos, São Paulo, Ribeirão Preto). Herein, we describe a predatory event that occurred at 1001 h on 12 October 2021, in the city of Peruíbe, located on the southern coast of the state of São Paulo, close to the Juréia - Itatins Ecological Station (24.3641ºS, 47.0202ºW; WGS 84).

The *C. bicarinatus* was seen in a residential area of the city. When the villagers approached, the snake assumed a defensive posture, raising approximately one-third of its body off the ground. After a few minutes in this posture, the snake turned and climbed ca. 3 m into a tree, where there was a resting *Boana albormaginata*. The snake tried to capture it but missed. The frog fell and jumped to the ground in escape. The snake dropped to the ground and quickly crawled towards the amphibian, capturing it by the head and commencing consumption without constriction. The *B. albomarginata* displayed some known defensive behaviors (Toledo et al. 2011. Ethol. Ecol. Evol. 23:1–25). It made a distress call, puffed up its body by filling its lungs with air, and tried to fight off the snake using its limbs (Fig. 1). Despite its efforts, the *B. albomarginata* was subdued and consumed in ca. 4 min. To our knowledge, this is the first record of *B. albomarginata* in the diet of *C. bicarinatus*, although it is common for this species to feed on other frogs (Bovo and Sueiro 2012. Herpetol. Notes. 5:291–292).

We are grateful to CNPq for providing research funding to the author LSA (130723/2020-7).

ERIC LEMOS KRÜGER, Universidade Estadual Paulista "Júlio de Mesquita Filho", Instituto de Biociências, 13506-900, Rio Claro, São Paulo, Brazil (e-mail: ericlemos97@gmail.com); **LUCAS DE SOUZA ALMEIDA**, Universidade Estadual Paulista "Júlio de Mesquita Filho", Departamento de Biodiversidade e Centro de Aquicultura, Instituto de Biociências, 13506-900, Rio Claro, São Paulo, Brazil (e-mail: almeidals1994@gmail.com).

***CHIRONIUS LAEVICOLLIS* (Brazilian Sipo). MATING BEHAVIOR.** *Chironius laevicollis* is a colubrid snake found in the Atlantic Forest of southeastern Brazil (Nogueira et al. 2019. S. Am. J. Herpetol. 14:1–274). It has diurnal and terrestrial habits and preys on anurans (Guimarães et al. 2014. Acta Zool. 95:341–346). Female *C. laevicollis* are oviparous and reproduce seasonally. Vitellogenesis occurs from late winter to late spring, and egg-laying occurs from early spring to early summer (Marques 1998. Composição faunística: História natural e ecologia de serpentes da Mata Atlântica, na região da Estação Ecológica Juréia-Itatins, São Paulo. Instituto de Biociências, São Paulo. 142 pp.; Costa et al. 2005. Herpetol. Bull. 92:26–27). However, no information on the mating season and mating behavior of the species is available. Here, we provide the first record of mating of *C. laevicollis* in nature and discuss the potential implications of the presence of another male in the area for the species' mating system.

At ca. 1130 h on 30 September 2019 (early austral spring), a male and female *C. laevicollis* were found copulating near the Parque Estadual do Rio Vermelho, Florianópolis City, Santa Catarina, Brazil (27.47530°S, 48.39630°W; WGS 84). The temperature of the area that day ranged from 25–30°C. The observation lasted ca. 35 min, during which a sequence of photos and videos

PHOTOS BY JULIANA A. FLORÊNCIO

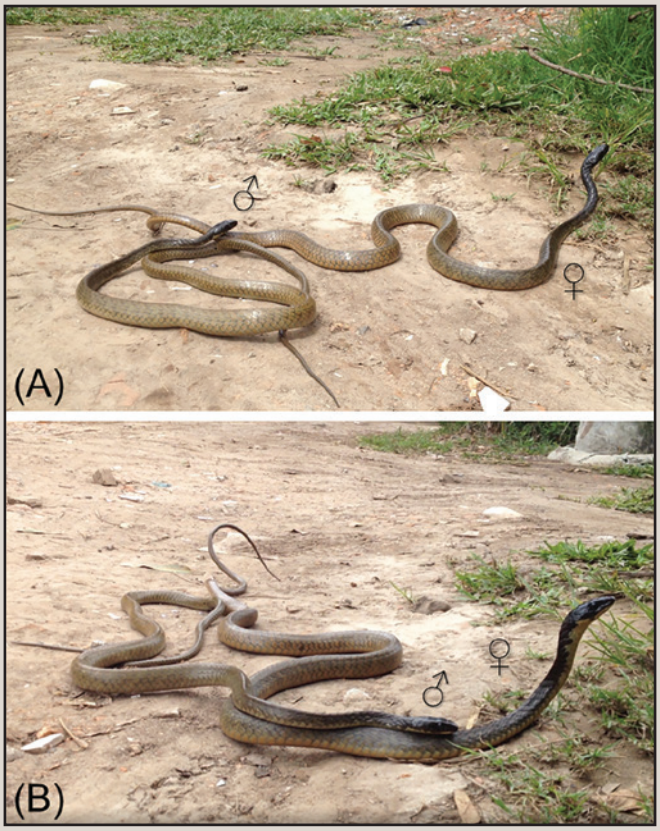

FIG. 1. Mating behavior of *Chironius laevicollis* in Santa Catarina, Brazil, including wave movements and chin rubbing along the dorsum of the female.

PHOTO BY JULIANA A. FLORÊNCIO

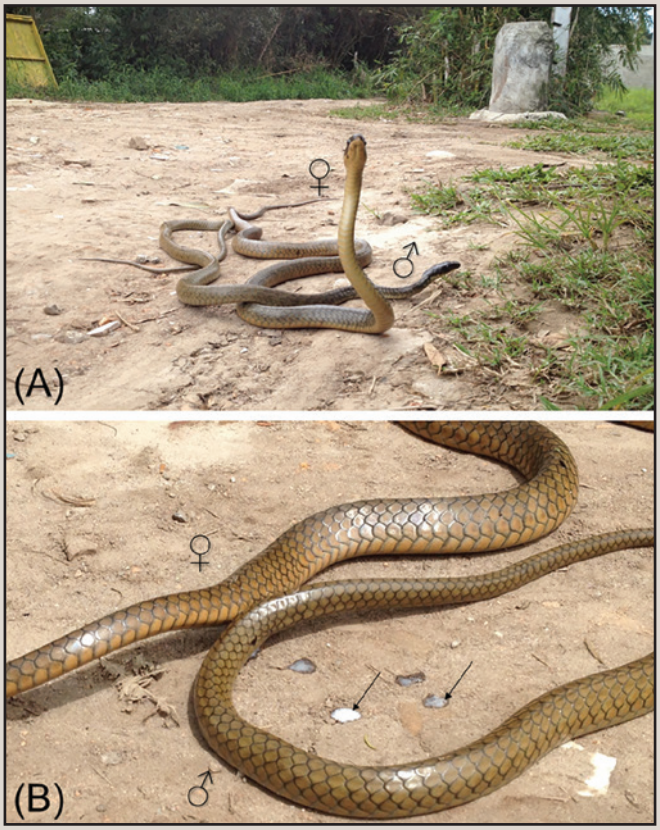

FIG. 2. Mating behavior of *Chironius laevicollis* in Santa Catarina State, Brazil: A) head lifting of the female B) cloacal gaping and copulation (arrows: semen).

were taken. The male performed wave movements towards the female's anterior trunk and chin rubbing along the female's dorsum (Fig. 1). In response, the female lifted her head (Fig. 2A) and showed cloacal gaping (Fig. 2B). We also noticed semen on the ground near the mating pair (Fig. 2B). A conspecific individual (possibly another male) was observed nearby the mating pair, but it moved away quickly as the observer approached.

Although some behaviors typical of the beginning of courtship were not observed (i.e., chasing, dorsal mount with parallel alignment, tail entwining), the courtship and copulation behaviors identified here are similar to those described for other snakes (Carpenter 1977. Integr. Comp. Biol. 17:217–223). Head lifting has been reported in females of the viperid *Agkistrodon contortrix* during courtship (Schuett and Duvall 1996. Anim. Behav. 51:367–373), but it may also occur in other taxa in which males engage in vertical combat (Almeida-Santos and Marques 2002. Amphibia-Reptilia 23:528–533). Head lifting by females might be a mechanism of female potential mate choice involving intraspecific sexual mimicry (Schuett and Duvall 1996, *op. cit.*).

Both male combat and aggregation have been reported in several species of *Chironius* (Almeida-Santos and Marques 1998, *op. cit.*; Starace 1998. Guide des Serpents et Amphisbènes de Guyane Française. Ibis Rouge Editions, Guadeloupe, Guiane. 452 pp.; Feio et al. 1999. Herpetol. Rev. 30:99). In *C. laevicollis*, male-male combat has also been observed in spring (SMAS, pers. obs.). Thus, in *C. laevicollis*, male–male combat occurs synchronously with both mating and vitellogenesis, between August and December (Marques 1998, *op. cit.*). Synchrony between male–male combat and vitellogenesis (in March) has also been recorded in *C. carinatus* (Starace 1998, *op. cit.*; Guimarães et al. 2013. Acta Zool. 95:341–346). In contrast, in *C. bicarinatus*, vitellogenesis begins in autumn and is synchronous with mating (Marques et al. 2009. S. Am. J. Herpetol. 1:76–80), but male-male combat has been recorded in spring when a greater number of vitellogenic females are observed (Almeida-Santos and Marques 2002, *op. cit.*; Marques et al. 2009, *op. cit.*). In *C. flavolineatus*, males aggregate and compete to court and mate with a female, and no combat seems to occur (Feio et al. 1999. Herpetol. Rev. 30:99), although data are limited. These observations suggest that both the mating season and the mating system may vary interspecifically in *Chironius*. Additional data are needed to assess whether the interspecific variation in the mating systems of species of *Chironius* exhibits phylogenetic structure.

We thank Juliana A. Florêncio for providing the photos, videos, and information of the copulation, Valdir J. Germano for the identification of the specimens, Henrique B. Braz for language editing, and the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) for the scientific initiation scholarship to GSA (#134863/2020-8).

GABRIELI S. ARAÚJO, SELMA M. ALMEIDA-SANTOS, SERENA N. MIGLIORE, and **LUIS M. LOBO**, Laboratório de Ecologia e Evolução, Instituto Butantan, Avenida Vital Brazil, 1500, CEP 05503-900, São Paulo, Brazil (e-mail: miguellobo013@gmail.com).

***CONOPSIS ACUTA* (Spotted Earthsnake). DIET.** *Conopsis acuta* is a semifossorial colubrid that occupies desert shrub, pine, pine-oak, and fir forest, usually found under rocks, decaying wood, and agave leaves. It is endemic to Mexico, distributed from southeastern Puebla (Valle de Tehuacán) and west-central