FIG. 2. Adult individual of *Bothrops atrox* collected in the Lavrado. Boxed, lateral details of the head.

FIG. 1. *Theraphosa stirmi* preying on *Bothrops atrox* in Manaus, Amazonas, Brazil.

are constant elements of the landscape, especially in the area of the Maú River, northeast of the drainage area. More detailed description can be found in Vanzolini and Carvalho (1991, *op. cit.*).

We suspect that *B. atrox* primarily occupies the gallery forest patches of the Lavrado, and that they only forage in the more open areas, returning to the closed canopy formations when they are not foraging. It is noteworthy that the specimens collected were always within sight of places with more dense vegetation, whether forest gallery or forest islands.

RAIMUNDO E. S. FARIAS, Instituto Nacional de Pesquisas da Amazônia. Av. André Araújo, 2.936 - Petrópolis - CEP 69080-971 - Manaus-AM, Brasil (e-mail: raimundoerasmosouza@gmail.com); **ANDERSON M. ROCHA**, Faculdade Cathedral de Ensino Superior, Faculdade Cathedral, Laboratório de Zoologia Aplicada de Vertebrados Terrestres e Aquáticos. Avenida Luís Canuto Chaves, 293, Caçari. CEP 69.307-655. Boa Vista, Roraima, Brasil (e-mail: amr.0609@gmail.com); **PATRIK F. VIANA**, Laboratory of Animal Genetics, Instituto Nacional de Pesquisas da Amazônia - Campus II, Av. André Araújo, 2936, 69080-971 Manaus, AM, Brazil, and Programa de Pós-Graduação em Genética Conservação e Biologia Evolutiva, Instituto Nacional de Pesquisas da Amazônia - Campus II, Av. André Araújo, 2936, 69080-971 Manaus, AM, Brazil (e-mail: patrik.biologia@gmail.com).

***BOTHROPS ATROX* (Common Lancehead). PREDATION.** *Bothrops atrox* is a pitviper native to tropical lowlands and rainforests throughout most of the northern South America. It is a terrestrial snake responsible for many snakebite accidents in Latin America (Calvete et al. 2011. J. Proteomics. 74: 510–527; Wustler et al. 1996. Herpetologica 52: 263–271). Here we report predation on *B. atrox* by a *Theraphosa* spider.

On 23 October 2017 an adult *Theraphosa stirmi* (Burgundy Goliath Birdeater; total length ca. 20 cm) was observed preying on a juvenile *B. atrox* (SVL ca. 30 cm) in a patch of Terra Firme upland forest near the margin of Acará water stream, within Adolpho Ducke Forest Reserve (Manaus, Amazonas, Brazil; 2.93851°S, 59.96878°W; WGS 84) (Fig. 1). Predation occurred at night (2000 h) on the ground, at ca. 30 cm from the entrance of spider's burrow. The *T. stirmi* first bit the *B. atrox* dorsally and then dragged it to the burrow. The pitviper initially squirmed and while inside the burrow bit the abdomen of *T. stirmi*. However, after 5 min, the *B. atrox* ceased movement and the *T. stirmi* commenced ingestion. The complete ingestion was not observed, but after 30 days, the same spider was observed normally in its burrow, apparently not damaged by the viper venom.

Theraphosa spiders are the largest in the world and belong to the family Theraphosidae, commonly known as tarantulas. *Theraphosa stirmi* has a distribution restricted to Brazil and Guyana (Rudloff et al. 2010. Arth. Sci.1: 21–40; Almeida et al. 2018. Check List.14: 647–650). There are previous records of frogs and caecilians being predated by other *Theraphosa* species (Menin et al. 2005. Phyllomedusa 4:39–47), but this is the first record of *B. atrox* preyed by one of these spiders.

MARLUS QUEIROZ ALMEIDA (e-mail: marlusqazoo@gmail.com) and **RAFAEL SOBRAL**, Laboratório de Sistemática e Ecologia de Invertebrados de Solo, Instituto Nacional de Pesquisas da Amazônia – Campus II, Av. André Araújo, 2936, 69080-97, Manaus, Amazonas, Brazil (e-mail: rafaelsobralves@gmail.com); **ALBERTO MOREIRA DA SILVA-NETO** (e-mail: bio.alberto@gmail.com) and **DIEGO M. M. MENDES**, Laboratório de Entomologia Sistemática Urbana e Forense, Instituto Nacional de Pesquisas da Amazônia – Campus II, Av. André Araújo, 2936, 69080-97, Manaus, Amazonas, Brazil (e-mail: diego.mello.mendes@gmail.com); **RODRIGO MORAES HIDALGO,** Programa de Pós-graduação em Zoologia, Universidade Federal do Amazonas, Manaus, Amazonas, Brazil (e-mail: rodrigomaoselvagem@gmail.com).

***BOTHROPS FONSECAI* (Fonseca's Lancehead). REPRODUCTION.** *Bothrops fonsecai* is a medium-sized, terrestrial viperid snake in the *B. alternatus* group. Its distribution is restricted to southeastern Brazil, where it occurs associated with the remnants of Mixed Ombrophilous Forest of the Serras do Mar, Mantiqueira and Órgãos (Campbell and Lamar 1989. The Venomous Reptiles of Latin America. Cornell University Press, Ithaca, New York. 425 pp.; Muller 1971. Salamandra 7:9–30). Because it is endemic to high altitude areas, there is little information available in the literature about its life history. Reproductive data for this species are restricted to a female with 14 well-developed embryos in January (Sazima and Manzani 1998. Herpetol. Rev. 29:102–103) and three litters in March, with the birth of 8, 9, and 10 neonates (Duarte 2004. Herpetol. Rev. 35:175–176). However, little is known about the mating period and reproductive cycle of the species. Here we report a mating event of *B. fonsecai* in its natural habitat and comment on its reproductive cycle.

The copulation was observed at the Serra do Papagaio State Park (22.1478°S, 44.73047°W; WGS 84; 1730 m a.s.l.), on 30 March 2013, in the municipality of Baependi, Minas Gerais, Brazil. The snakes were seen during the day, on the roots of a fallen tree, at the edge of Mixed Ombrophilous Forest. Both snakes had their bodies stretched out in opposite directions, with only their tails intertwined (Fig. 1). As they noticed the researcher's approach,

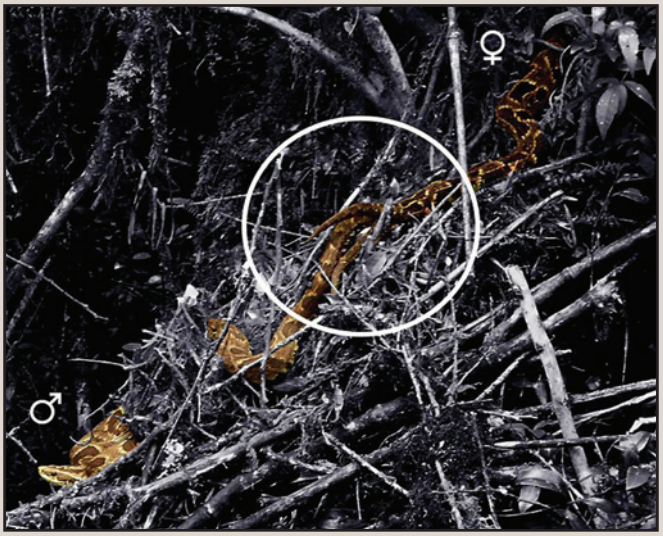

Fig. 1. Male and female *Bothrops fonsecai* mating in Serra do Papagaio State Park, Minas Gerais, Brazil.

one of the snakes started vibrating its tail against the ground, and shortly thereafter, both started to move into the forest in opposite directions. In the same conservation unit (Serra do Papagaio State Park), we recorded two juveniles in February and March 2015, and an adult female (75 cm SVL, 10.5 cm tail length) with follicles in secondary vitellogenesis in November. Thus, females have embryos in January, parturition takes place in March (Sazima and Manzani 1998, *op. cit.*; Duarte 2004, *op. cit.*), and the encounter of juveniles in the wild in February and March (reported here) indicate that recruitment occurs between late summer and early fall. The presence of follicles in secondary vitellogenesis in late spring (December) and mating in early autumn (March and May) indicate that the reproductive cycle of *B. fonsecai* is biennial, as in other species of the genus *Bothrops* (Almeida-Santos and Salomão 2002. *In* Schutett et al. [eds.], Biology of the Vipers, pp. 445–462, Eagle Mountain Publishing, Eagle Mountain, Utah).

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FREDERICO A. MENEZES, Universidade Federal de Viçosa, Departamento de Biologia Animal. Avenida P.H. Rolfs, s/nº, Campus Universitário, CEP 36571-000, Viçosa, Minas Gerais, Brazil (e-mail: fredalcantara@hotmail.com); **SAMYRA G. FURTADO**, Universidade Federal de Juiz de Fora, Departamento de Ecologia, Rua José Lourenço Kelmer, s/n, Campus Universitário, CEP 36036-900, Juiz de Fora, Minas Gerais, Brazil; **RENATO N. FEIO**, Universidade Federal de Viçosa, Departamento de Biologia Animal. Avenida P.H. Rolfs, s/nº, Campus Universitário, CEP 36571-000, Viçosa, Minas Gerais, Brazil; **SELMA M. ALMEIDA-SANTOS**, Instituto Butantan, Avenida Vital Brazil, 1500, 05503- 900, São Paulo, São Paulo, Brazil.

***BOTHROPS JARARACA* (Jararaca). ANOMALOUS COLOR PATTERN.** The most important group of venomous snakes in Brazil is the genus *Bothrops*, which cause a great number of snakebites (e.g., 20,000 cases in 2016 alone; http://tabnet.datasus.gov.br; 6 Feb 2019). The identification of these snakes is crucial for correct treatment and antivenom use (Warrell 2010. The Lancet 375:77–88). Herein, we report an anomalous color pattern of the species *Bothrops jararaca*.

On 20 September 2018, during a hike, an unusually-colored adult *B. jaracaca* (Fig. 1A) was found in an Atlantic forest fragment in Cachoeiras de Macacu, Rio de Janeiro

Fig. 1. A) *Bothrops jararaca* from Rio de Janeiro state, Brazil, with anomalous pattern; B) *B. jararaca* from Rio de Janeiro state with typical color pattern.

state, Brazil (22.2225°S, 42.3357°E; WGS 84; 1054 m elev.). The dorsal blotches of the *B. jararaca* had coalesced into a stripe format along the body. Generally, *Bothrops jararaca* have dorsolateral blotches that are clearly separated (Fig. 1B). Color pattern is a relevant character for species identification on genus *Bothrops* (Campbell and Lamar 1989. The Venomous Reptiles of Latin America. Cornell University Press, Ithaca, New York. 425 pp.; Campbell and Lamar 2004. The Venomous Reptiles of the Western Hemisphere. Cornell University Press, Ithaca, New York. Vol. 1: xviii + 504 pp., Vol. 2: xiv + 422 pp.). Viperid snakes are known to occasionally have anomalous color patterns in nature (e.g., Vincent 1982. Southwest. Nat. 27: 263–272; Krecsák 2008. Russ. J. Biol. 15:97–102). However, this is the first record of a *Bothrops jararaca* from Atlantic forest, Rio de Janeiro state, Brazil with a striped pattern, without clearly defined dorsolateral blotches.

IZENITA BARBOSA-BRUM, CiênciasBio Cursos & Treinamentos, Rio de Janeiro, CEP 21.230-175, Brazil (e-mail: iobbrum@hotmail.com); **AFONSO SANTIAGO MENESES**, Laboratório de Fauna e Unidades de Conservação, Universidade de Brasília, Brasília, Distrito Federal, DF 70910-900, Brazil (e-mail: afonso.santiago06@gmail.com); **NATHALIE KALADINSKY CITELI**, Programa de Pós Graduação em Zoologia, Universidade de Brasília, Brasília, Distrito Federal, DF 70910-900, Brazil (e-mail: citeli@outlook.com).

***BOTHROPS JARARACA* (Jararaca). XANTHISM.** Chromatic anomalies, such as albinism, are well known in several animal species, including snakes (McCardle 2012. Albinism in Wild