NOTES

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Natural History

Predation of *Atelocynus microtis* and *Speothos venaticus* (Carnivora: Canidae) by *Boa constrictor* (Squamata: Boidae) in Southwestern Brazil and Southeastern Peru

Renata Leite[1], Patrick S. Champagne*[2], Evandro Ferreira[3]

1 Duke University Nicholas School of the Environment, 9 Circuit Dr, Durnham, USA.
2 Acadia University Biology Department, 33 Westwood Avenue, Wolfville, Canada.
3 National Institute of Amazon Research (INPA), Acre, Brazil
* Correspondencia: patrickchampgne@gmail.com

Resumen

Literatura sobre la ecología de la depredación de cánidos amazónicos es escasa, especialmente para las especies raramente observadas: *Speothos venaticus* (perro de monte) y *Atelocynus microtis* (perro de orejas cortas). Documentamos observaciones de la especie *Boa constrictor* depredando un perro de orejas cortas en el sureste de Perú y dos individuos de perros de monte al sudoeste de Brasil.

Palabras clave:, zorro de oreja corta, pero de monte, boa

Abstract

Literature on the predation ecology of Amazonian canids is scarce, especially for the two rarely observed canids; *Speothos venaticus* (Bush Dog) and *Atelocynus microtis* (Short-eared Dog). Between 2000 and 2005 we documented one observation of predation of a *A. microtis* from southeastern Peru and an observation of *S. venaticus* predation from southwestern Brazil.

Key words: short-eared dog, bush dog, red-tailed boa

Literature on the predation of Amazonian canids is scarce, especially for the two rarely detected canids: *Speothos venaticus* (Bush dog) and *Atelocynus microtis* (Short-eared Dog) (DeMatteo & Loiselle 2008; DeMatteo 2008; Leite-Pitman & Williams 2011). Both *S. venaticus* and *A. microtis* have wide distributions across South America, are considered rare, and are among the most understudied carnivore mammals in the Neotropics (e.g., in Tensen 2018). Both species are listed as near threatened by the IUCN (Leite-Pitman & Williams 2011; DeMatteo et al. 2011). Additionally, several studies indicate that *A. microtis* are possibly at a higher risk than currently established (de Oliveira 2009; de Oliveira et al. 2018; Rocha 2020). Few observations of predators of these species and the role predation plays in their

ecology have been investigated and documented. Predators for the two species are only reported to include felines and they possibly act as intraguild competitors and predators of *S. venaticus* specifically (Aquino & Puertas 1997; de Oliveira et al. 2018). In 2005 we documented an instance of predation of *A. microtis* by the large snake species *Boa constrictor* in southeastern Peru and another predation event of two individual *S. venaticus* in southwest of Brazil.

The first observation was 6 June 2005. A radio-tracked *A. microtis* was found consumed by a *Boa constrictor constrictor* in seasonally flooded forests, near the Estacion Biologica Los Amigos, Madre de Dis department, Peru (coordinates: -12.5537, -70.1080, 293 masl). The predated individual corresponded to a juvenile female (eight-month-old) of *A. microtis* which was tracked for two months. *B. constrictor* measured 3m in total length and weighed 40kg. It regurgitated the *A. microtis* while it was measured (Figure 1a). The second observation was in June 2005 and documented by a field team studying native oilseed species. *Boa constrictor* was observed predating an adult female and a juvenile of *S. venaticus* in Fazenda Barra Nova, on the Purus river, Acre, Brazil (coordinates: -8.8765, -68.6717, 150 masl). The snake was initially detected attempting to swallow the adult and at the same time constricting the still living juvenile (Figure 1b). When the team returned down the trail, they found the *B. constrictor* had consumed the adult, however, the young individual was not located.

FIGURA 1. **(A)** An adult female Red-tailed boa (*Boa constrictor constrictor*) regurgitating a radio collared Short-eared dog (*Atelocynus microtis*) near the confluence of the Los Amigos and Madre de Dios rivers, Madre de Dios, Peru. Photo by Renata Leite. **(B)** An adult female Red-tailed boa (*Boa constrictor constrictor*) constricting two bush dogs (*Speothos venaticus*) in Acre, Brazil. Photo by José de Ribamar Bandeira, Photograph previously posted to https://ambienteacreano.blogspot.com/2005/12/acre-selvagem.html

Large boid species including *B. constrictor* and *Eunectes murinus* (Green Anaconda) are documented predators of other South American canid species (e.g., *Cerdocyon thous* (Crab-eating fox); Jácomo & Silveira 1998, Almiron et al. 2011). We have also documented *E. murinus* predating on domestic dogs at several localities in southeastern Peru (Champagne 2022). Our records represent new descriptions of diet for *B. constrictor*. Species such as *A. microtis* and *S. venaticus*, are consistent as dietary items of *Boa constrictor, as* the previously described generalist diet, which also includes medium sized species like *Puma yagouarundi* (Pizzatto et al. 2009; Monroy-Vilchis et al. 2011). We hypothesize that predator-prey relation can be inverse in both *A. microtis* and *S. venaticus* with large boid snakes such as *B. constrictor*. Both *S. venaticus* and *A. microtis* have been observed to forage in pairs and larger groups (Kleiman 1972, unpublished camera trap records, RLP, 2000-2005). Furthermore, an example of predator prey inverse between *B. constrictor* and a canid was previously documented in the Brazilian Cerrado when two *C. thous* cooperatively predated an adult *B. constrictor* (da Silva et al. 2018). These observations further exemplify the complex predator-prey interactions of amazonian predators and the necessity of investigating such aspects of predator ecology in the amazon rainforest.

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