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Boa constrictor Predation on a Titi monkey, *Callicebus discolor*

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Although it is thought that predation has played a major role in the evolution of primate sociality, actual predation events involving primates are rarely documented (Van Schaik, 1983; Boinski *et al.*, 2000). Birds of prey, felids, mustelids, and snakes are known predators of Neotropical primates. Most reported attacks by Neotropical snakes on monkeys are attributed to *Boa constrictor*, which feeds on callitrichids (*Saguinus*) and cebids (*Saimiri*, *Cebus*, *Alouatta* and *Chiropotes*), as well as a wide variety of small- and medium-sized mammals (didelphids, dasypodids, vespertilionids, molossids, procyonids, agoutids, dasyproctids, echimyids, murids and sciurids), birds (falconids, cotingids and formicarids), and reptiles (teiids) (Janzen, 1970; Greene, 1983; Chapman, 1986; Trail, 1987; Henderson *et al.*, 1995; Martins and Oliveira, 1998; Thorstrom and Morales, 2000; Shahuano Tello *et al.*, 2002; Perry *et al.*, 2003; Urbani, 2003; Ferrari *et al.*, 2004; pers. obs.).

Here we report an instance of predation by *Boa constrictor* on *Callicebus discolor*, observed during fieldwork at the Tiputini Biodiversity Station (TBS), a field station located in the Ecuadorian Amazon (00°37'05"S, 76°10'19"W, elev. 215 m; see Cisneros-Heredia, 2003). A total of 12 primate species have been recorded at TBS: *Cebuella pygmaea*, *Saguinus tripartitus*, *Aotus vociferans*, *Callicebus discolor*, *Pithecia monachus*, *Pithecia aequatorialis*, *Saimiri sciureus, Cebus albifrons*, *Cebus apella*, *Alouatta seniculus*, *Lagothrix lagotricha* and *Ateles belzebuth*. This is the first report of boa predation on monkeys of the genus *Callicebus*.

On 28 September 2003, at 11:30 am, we heard the calls of at least two *Callicebus discolor*. Following the calls, we discovered an adult *Boa constrictor* (total length ca. four meters) constricting a *Callicebus discolor* in a tree, approximately five meters above ground. The boa was coiled around the monkey, still shifting and squeezing. A second monkey was about four meters from the boa at the same height and called out once. No physical interactions were observed between the second monkey and the boa. The boa remained coiled around the carcass for some 45 minutes and then took approximately one hour to swallow it.

Reducing the risk of predation has been hypothesized to be one of the benefits of group living, and group behaviours such as alarm calls, mobbing and counter-attacks have been reported as primate responses to predation attempts by snakes (Chapman, 1986; Bartecki and Heymann, 1987; Shahuano Tello *et al.*, 2002). During this predation event, the only response behaviour we recorded was the calling from the second individual (rather short, classified into the

second group of Robinson, 1979). The absence of other response behaviours cannot be assumed, however, because we arrived when the boa was already constricting the monkey. It is unknown how predation events may have functioned in the evolution of sociality in *Callicebus*, but this observation, together with similar reports (Chapman, 1986; Bartecki and Heymann, 1987; Martins and Oliveira, 1998; Shahuano Tello *et al.*, 2002; Perry *et al.*, 2003; Ferrari *et al.*, 2004), suggests that snakes play a major role as predators of Neotropical primates.

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