

Boa constrictor (Reptilia, Serpentes, Boidae): opportunistic predation on *Diopsittaca nobilis* (Aves, Psittacidae).

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Boa constrictor is widely distributed in Central and South America, inhabiting forested and open regions (Henderson et al, 1995). It is an ambush predator (Greene, 1997), and selection of ambush site may be of crucial importance for the foraging success (Shine & Xin, 2002). Here we report two predation events by a *B. constrictor* held in captivity in an outdoor enclosure at Instituto Butantan, São Paulo, Brazil.

On 6 August 2015, at 09:06 hrs, a *B. constrictor* was observed capturing an adult *Diopsittaca nobilis*, Psittacidae (red-shouldered macaw). The snake, born in the Biological Museum of Instituto Butantan (SVL 1480mm; VTL 150mm; mass 3530g) in 2007, was regularly fed on rodents. The enclosure is open to the public for visits and altogether houses 20 *B. constrictor*, although the predation attempts were observed in a single snake. The enclosure has a ground area of 386.22m² but has no overhead cover. The snakes are confined by a 1.8m high wall (Fig. 1). The enclosure is provided with shelters, a pond (length 3.7m, width 1.0m) and also flowing fresh water. Vegetation consists of large palm trees shrubs and underbrush. The presence of shrubs and trees allows free vertical movement of the snakes and thus they are able to select places of refuge, rest and ambush. Frequent pruning of branches next to the enclosure wall minimises escapes.

The Boa had been seen resting on a palm tree (*Caryota urens*), at a height of 11m, hidden among foliage and hence was difficult to detect. When a *D. nobilis* flew into

the enclosure and perched close by, the snake seized it by constriction, suffocated it and, in a few minutes, started swallowing the prey headfirst. The process took exactly 101 minutes for full ingestion (Fig. 2). The subject remained at the same location for 15 days following the ingestion event. On 13 November 2015, the same snake, identified by body pattern, in the same palm tree at a similar height to the previous event captured a second adult *D. nobilis*. The snake seized the bird at 08:08 hrs, constricted it, killed it by suffocation and started ingesting headfirst but appeared to be having difficulty swallowing the prey. At 10:09 hrs, the head was only partly ingested and at 10:20 hrs, little more than 2 hours after capture, feeding was abandoned and the prey left among the palm leaves. On the same day, at 16:40hrs, the dead bird was sighted in the same place. On the morning of 16 November 2015, the prey was found on the enclosure floor and biometric measurements were taken; exposed culmen 34.6mm; head 48.3mm; wing chord 185mm; total length 331mm.

Observations of predation on adult psittacids by *B. constrictor* are unusual, probably due to their size, flight ability and intense flock vigilance (Begotti & Filho, 2011). After the predation events part of the flock remained relatively close to the event, emitting vocal alarm signals for a few minutes. The *B. constrictor* may have used the same palm tree because it is frequented by birds, and offers effective camouflage and shade from the sun, including for a large snake.



Figure 1. Partial view of the snake enclosure at Instituto Butantan.



Figure 2. *B. constrictor* beginning ingestion of *Diopsittaca nobilis*.

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