

## NOTA

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PREDATION BY *CORALLUS ANNULATUS* (BOIDAE) ON *RHYNCHONYCTERIS NASO* (EMBALLONURIDAE) IN A LOWLAND TROPICAL WET FOREST, COSTA RICA

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*Corallus annulatus* (Northern Annulated Tree-boa) is a little-studied tropical Boid occurring disjunctively throughout Central America and tropical South America in mostly lowland tropical moist and wet forests (Holdridge, 1967; Stafford & Henderson, 1996; Smith & Acevedo, 1997; Henderson *et al.*, 2001). Prior to this report and to the best of our knowledge, small rodents were the only documented prey for wild specimens of *C. annulatus* (Henderson *et al.*, 1995).

Caño Palma Biological Station is situated on the northeast coast of Costa Rica approximately 8 km north of Tortuguero. *C. annulatus* has previously been recorded from *Manicaria* forest at Caño Palma (Myers, 1990; Burger, 2001).

On 12<sup>th</sup> January 2002 and 15<sup>th</sup> July 2003 we found two separate *C. annulatus* specimens with *Rhynchonycteris naso* (Proboscis bat) in their stomachs. In the first instance an anerythristic co-

loured juvenile female *C. annulatus* (270 mm TL / 180 mm SVL) was discovered in the roofing rafters at Caño Palma's boat dock (Fig. 1.0). *Rhynchonycteris naso* were regularly observed roosting beneath the dock in groups of between three and eight individuals (Fig 1.1) several nights before we found the snake. We discovered, without the need for regurgitation by palpation, typical shapes of bat morphology and deduced that it was possible that the snake had eaten a *R. naso*. On the second occasion we observed an orange / taupe coloured adult male *C. annulatus* (584 mm TL / 512 mm SVL) swallowing a *R. naso* in the crown of a *Manicaria saccifera* palm, approximately 200 m along a riparian section of the Biological Station's forest. *Rhynchonycteris naso* are an abundant insectivorous bat found throughout most tropical lowlands from southern Mexico through to the northern half of South America (Sorin, 1999). They are a small bat ranging from 35 to 41 mm in forearm length and typically weigh around 4 g. Both *C. annulatus* and *R. naso* are closely associated with trees near rivers and streams and single species roost sites for *R. naso* are almost exclusively found close to water (Goodwin, 1946; Goodwin & Greenhall, 1961; Carter *et al.*, 1966; Plumpton & Jones, 1992; Stafford & Henderson, 1996).

To the best of our knowledge these are the first recorded instances of *C. annulatus* predating on *R. naso*. Previous studies have identified hawks (*Buteo* spp.), falcons (*Falco* spp.) and egrets (*Leucophoyx* spp.) as significant predators of *R. naso* (Husson, 1962; Sander-son, 1941). The Orb spider *Argiope savignyi* (Araneidae) has also been recorded as a predator (Timm & Losilla, 2007). Predation on bats by Boids is well recorded in the tropics, most of which are recorded at the bats' roosting site; *Epicrates cenchris cenchris* (Boidae) (Rain-



**Fig. 1.0.** Anerythristic *Corallus annulatus* with (possible) *Rhynchonycteris naso* meal (Photo: Paul B. C. Grant).



**Fig. 1.1.** *Rhynchonycteris naso* roosting under Caño Palma Biological Station boat dock (Photo: Paul B. C. Grant).

bow Boa) fed on *Carollia perspicillata* (Phyllostomidae) (Lemke, 1978), *Epicrates anguilifer* (Boidae) (Cuban Boa) predated *Phyllonycteris poeyi* (Phyllostomidae) (Hardy, 1957) and *Epicrates inornatus* (Boidae) (Puerto Rican Boa) ate *Monophyllus redmani* (Phyllostomidae) and *Brachyphylla cavernarum* (Phyllostomidae) (Rodríguez, 1984). The more thoroughly studied *Corallus hortulanus* (Boidae) (Amazon Tree Boa) is known to adopt a sit-and-wait strategy as well as actively snatching bats from the air (Henderson, 2002; Barnett *et al.*, 2007). Given that both the *C. annulatus* and the *R. naso* are primarily nocturnal it is suggested that, on both occasions, the tree-boas adopted a snatching strategy.

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