

Altitudinal records of data-deficient and threatened frog species from the Atlantic Rainforest of the Serra dos Órgãos mountains, in southeastern Brazil

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Received April 04, 2012 – Accepted May 05, 2012 – Distributed February 28, 2013

Threatened species are usually the focus of conservation efforts and funding programs, but little attention is given to species considered “data-deficient” (DD), contradicting the IUCN’s recommendation to give them the same degree of attention as threatened taxa (Pimenta et al., 2005). Here, we present information on the occurrences of some anuran species currently considered as data-deficient, near threatened or endangered (and some species which are not on the IUCN list), based on data gathered during surveys

conducted from November 2007 to March 2010 in the Atlantic Rainforest of the Serra dos Órgãos mountain range region, in the state of Rio de Janeiro, Brazil. Sampling was carried out in four areas: the Reserva Ecológica de Guapiaçu (REGUA; 22° 24’ S, 42° 44’ W) and three sites within the Parque Estadual dos Três Picos: Fazenda Santa Bárbara (FSB; 22° 25’ S and 42° 34’ W), Theodoro de Oliveira (TO; 22° 22’ S and 42° 33’ W), and Baixo Caledônia (BC; 22° 21’ S and 42° 34’ W). Sampling was

Table 1. Anuran species recorded in four areas within the region of the Serra dos Órgãos mountains, in southeastern Brazil (see text for abbreviations of sampling localities). Numbers in those columns represent the elevations (m) where frogs were found. Species endemic to the state of Rio de Janeiro (RJ) and to the Serra dos Órgãos (SO) are marked with an “X”. Conservation status of species (data-deficient – DD; near threatened – NT; endangered – EN) follows IUCN (2011).

Species	REGUA	FSB	TO	BC	RJ	SO	IUCN
BRACHYCEPHALIDAE							
<i>Brachycephalus garbeanus</i>			1400	1600-1900	X	X	
<i>Brachycephalus</i> sp. n.			1100-1200		X	X	
<i>Ischnocnema erythromera</i>			1100-1400		X	X	DD
<i>Ischnocnema holti</i>			1100-1300	1600	X		DD
<i>Ischnocnema</i> sp. (gr. <i>lactea</i>)			1300		X	X	
CYCLORAMPHIDAE							
<i>Cycloramphus brasiliensis</i>	100-600	600-700			X		NT
HEMIPHRACTIDAE							
<i>Flectonotus</i> sp.				1600-1900	X	X	
<i>Gastrotheca ernestoi</i>				1900	X		DD
HYLIDAE							
<i>Aplastodiscus eugenioi</i>	100-300						NT
<i>Hypsiboas secedens</i>	200				X		DD
HYLODIDAE							
<i>Crossodactylus aeneus</i>	100-300	600					DD
<i>Hylodes charadranaetes</i>	600	600-900	1100-1400		X		DD
<i>Hylodes pipilans</i>	300-500				X		DD
MICROHYLIDAE							
<i>Chiasmocleis carvalhoi</i>	300						EN
STRABOMANTIDAE							
<i>Holoaden pholeter</i>			1200-1400		X	X	DD

done using visual encounter surveys (total of 1,000 hours of searching) and pitfall traps (60-liter buckets; total of 600 traps-days) at 14 altitudinal levels ranging from 100 to 1900 m.

Among the 62 frog species found during the study, eight are presently categorised by the IUCN (2011) as data-deficient, two as “near threatened”, one as “endangered”, and four are not on the IUCN list (Table 1), as they represent recently revalidated (*Brachycephalus garbeanus*) or still undescribed taxa (*Brachycephalus* sp., *Ischnocnema* sp., *Flectonotus* sp. (see Siqueira et al., 2011). Of these 15 species, 12 (=80%) are currently known only from the state of Rio de Janeiro, and six (=40%) are considered endemic to the Serra dos Órgãos region (Table 1). Most of these species were recorded in just one or two locations, within a small elevational range. Regarding reproductive modes, seven of the species (*Brachycephalus* spp., *Ischnocnema* spp., *Holoaden pholeter*, and *Gastrotheca ernestoi*) have direct development and lay eggs on the moist leaf litter of the forest floor, whereas five (*Crossodactylus aeneus*, *Hylodes* spp., *Cycloramphus brasiliensis*, and *Aplastodiscus eugenioi*) depend on clean, lotic water bodies for reproduction. We hope these data improve the knowledge on these poorly known species and stimulate future long-term studies with

them, contributing to conservation efforts for amphibians in the Atlantic Rainforest.

Acknowledgements – We thank the INEA, Nicholas Locke and Alexander Davis for the permissions for working at the studied sites. CFDR received resources from the CNPq (304791/2010-5 and 470265/2010-8) and FAPERJ (“Cientistas do Nosso Estado”; E-26102.765/2012). This project also benefitted from funding from the Fundação Biodiversitas/CEPAN and RAN/ICMBio (0158A/012006). CCS received PhD (141555/2008-4) and postdoctoral (150151/2012-8) grants from CNPq. We also thank J.P. Pombal Jr., C. Canedo, C.A.G. Cruz, B.V.S. Pimenta and M. Targino (MNRJ) for frog identifications.

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