

# New record of *Corythomantis greeningi* Boulenger, 1896 (Amphibia, Hylidae) in the Cerrado domain, state of Tocantins, Central Brazil

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*Corythomantis greeningi* is a hylid frog distributed along xeric and subhumid regions of northeastern Brazil, usually associated with the Caatinga domain (Jared et al., 1999). However, recent studies have shown a larger distribution for the species in the Caatinga and Cerrado (Valdujo et al., 2011; Pombal et al., 2012; Godinho et al., 2013) (Table 1; Figure 1). This casque-headed frog is a medium-sized hylid, with a pronounced ossification in the head and high intraspecific variation in skin coloration (Andrade and Abe, 1997; Jared et al., 2005). Herein, we report a new record of *Corythomantis greeningi* in the Cerrado and provide its distribution map based on published data and the new record (Figure 1).

On 20 February 2013, during an anuran survey at the district of Taquaruçu, Palmas municipality, Tocantins state, central Brazil, we collected an individual of *Corythomantis greeningi* (Figure 2) that was perched on a palm tree leaf within a gallery forest, at 21:00 h, near the Roncadeira waterfall (Figure 3; 10°17'47"S, 48°07'42"W; 635m a.s.l.) The voucher specimen is housed at the Herpetological Collection of the Universidade Federal de Mato Grosso do Sul (ZUFMS 3448; collection permits ICMBio 26157-7).

In Tocantins state, *Corythomantis greeningi* was known only from the Estação Ecológica Serra Geral do Tocantins (EESGT) (Valdujo et al., 2011), in the Jalapão region, a marginal Cerrado area with influence of the

Caatinga. This new record extends the distribution of *Corythomantis greeningi* around 160 km western from the EESGT, which means approximately 400 km from the edge of the Caatinga domain (Figure 1). Although *Corythomantis greeningi* has already been registered in the Cerrado, this record shows a wider distribution into this formation, not only marginally as previously suggested (Valdujo et al., 2012). This is the most western record of *Corythomantis greeningi*.

Quaternary climatic oscillations have modeled the distribution of South American open vegetation formations (Caatinga, Cerrado and Chaco) (Werneck, 2011) and influenced the distribution of several taxonomic groups of animals within this gradient, such as birds (Silva, 1995, 1997), squamate reptiles (Werneck and Colli, 2006; Nogueira et al., 2011), mammals (Carmignotto et al., 2012) and amphibians (Valdujo et al., 2013), with current disjoint distributions and relict populations. Nuclear populations of *Corythomantis greeningi* in the Cerrado could be a relict distribution from past events. However, we emphasize the need for a better sampling effort in the northern portion of the Cerrado, which may fill this gap and reveal different geographic distribution patterns for other anuran species.

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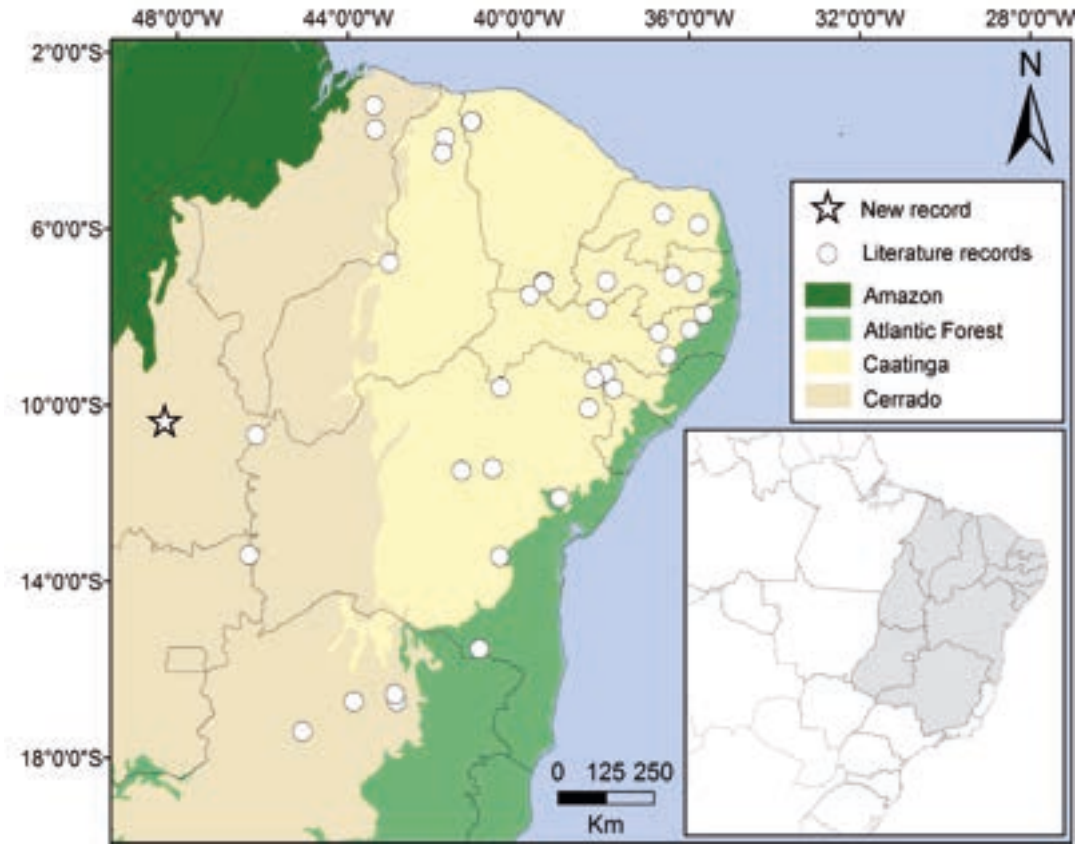
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**Figure 1.** Distribution map of *Corythomantis greeningi* showing known localities based on the literature (open circles) and the new record in Palmas, Tocantins state, central Brazil (star).



**Figure 2.** An individual of *Corythomantis greeningi* (ZUFMS 3448, CRC 39.00 mm) from the Taquaruçu district, Palmas municipality, Tocantins state, central Brazil. Photo credit: Mauro Celso Hoffmann.



**Figure 3.** Area of the Roncadeira waterfall, Palmas, Tocantins state, where the individual of *Corythomantis greeningi* was collected. Photo credit: Mauro Celso Hoffmann.

**Table 1.** Localities with confirmed records of *Corythomantis greeningi* in Brazil.

Locality	State	Latitude	Longitude	Reference
Água Branca	Alagoas	-9.261944	-37.937778	Pombal et al. (2012)
Piranhas	Alagoas	-9.623333	-37.756667	Kasahara et al. (2003)
Feira de Santana	Bahia	-12.100000	-39.030000	Juncá et al. (2008)
Jeremoabo	Bahia	-10.068333	-38.346944	Pombal et al. (2012)
Morro do Chapéu	Bahia	-11.483056	-41.333056	Juncá et al. (2008)
Paulo Afonso	Bahia	-9.398056	-38.221389	Pombal et al. (2012)
Eneruzilhada	Bahia	-15.530000	-40.912222	Sazima and Cardoso (1980)
Maracás	Bahia	-13.435278	-40.432222	Pombal et al. (2012)
Carnaíba do Sertão	Bahia	-9.595833	-40.419167	Pombal et al. (2012)
Miguel Calmon	Bahia	-11.429722	-40.603056	Pombal et al. (2012)
Crato	Ceará	-7.215278	-39.410278	Pombal et al. (2012)
Viçosa do Ceará	Ceará	-3.561944	-41.091944	Godinho et al. (2013)
Viçosa do Ceará	Ceará	-3.566667	-41.091389	Pombal et al. (2012)
Crato	Ceará	-7.234167	-39.409167	Godinho et al. (2013)
São Domingos	Goiás	-13.399722	-46.321667	Pombal et al. (2012)
Chapadinha	Maranhão	-3.738611	-43.360278	Sazima and Cardoso (1980)
Urbano Santos	Maranhão	-3.206389	-43.387778	Pombal et al. (2012)
Buritizinho	Minas Gerais	-17.403611	-45.060000	Godinho et al. (2013)
Cristália	Minas Gerais	-16.715833	-42.856944	Feio and Caramaschi (1995)
Montes Claros	Minas Gerais	-16.728056	-43.857778	Godinho et al. (2013)
Grão Mogol	Minas Gerais	-16.559167	-42.889444	Godinho et al. (2013)
Campina Grande	Paraíba	-7.221944	-35.873056	Pombal et al. (2012)
Piancó	Paraíba	-7.192778	-37.928611	Pombal et al. (2012)
São João do Cariri	Paraíba	-7.366389	-36.516389	Vieira et al. (2007)
Soledade	Paraíba	-7.058056	-36.366667	Pombal et al. (2012)
Garanhuns	Pernambuco	-8.882222	-36.496389	Pombal et al. (2012)
Caruaru	Pernambuco	-8.284444	-35.969722	Pombal et al. (2012)
Exu	Pernambuco	-7.503611	-39.723611	Pombal et al. (2012)
Pesqueira	Pernambuco	-8.357778	-36.697778	Carvalho (1941)
Salgadinho	Pernambuco	-7.926667	-35.650278	Carvalho (1941)
Santa Cruz da Baixa Verde	Pernambuco	-7.813333	-38.147500	Silva et al. (2010)
Piracuruca	Piauí	-3.928056	-41.709167	Sazima and Cardoso (1980)
Piripiri	Piauí	-4.273889	-41.776667	Godinho et al. (2013)
Parque Nacional Sete Cidades	Piauí	-4.273056	-41.776667	Pombal et al. (2012)
Floriano	Piauí	-6.771667	-43.023889	Pombal et al. (2012)
Angicos	Rio Grande do Norte	-5.661667	-36.605000	Jared et al. (2005)
São Paulo do Potengi	Rio Grande do Norte	-5.899167	-35.764167	Pombal et al. (2012)
Estação Ecológica Serra Geral	Tocantins	-10.680000	-46.150556	Valdujo et al. (2011)
Taquaruçu district	Tocantins	-10.339223	-48.302834	Present work

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