AUTOECOLOGY OF *Stenolepis ridleyi* (Squamata: Gymnophthalmidae) in Northern Atlantic Forest, Brazil

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Abstract.—Data on species natural history is fundamental to understand their systematics, ecology, ethology, and evolution. Several Gymnophthalmidae lizards are poorly known regarding their ecology, especially in the northern Atlantic Forest of Brazil. Our study sheds light on the ecology of the Pernambuco Teiid (*Stenolepis ridleyi*), a small Iphisini lizard endemic to the humid forests of northeastern Brazil. We collected specimens and analyzed the diet, sexual dimorphism, reproduction, and parasitism of *S. ridleyi* in Pedra Talhada Biological Reserve. *Stenolepis ridleyi* is an opportunistic, active forager predator, with Orthoptera the most frequent item in its diet. We found 170 helminths in lizards, with the most abundant belonging to the genus Cosmocerca. The feeding and parasitic ecology of *Stenolepis ridleyi* are similar to other Gymnophthalmid lizards, indicating potential phylogenetic conservatism in diet and parasitological patterns. There is a pronounced sexual dimorphism in color pattern and morphology, with males having larger bodies and longer hindlimbs. The species exhibits a prolonged breeding season with multiple periods of oviposition.

Key Words.---diet; helminths; Iphisini; natural history; sexual dimorphism

INTRODUCTION

Gymnophthalmidae is one of the most diverse lizard families in the Neotropics, with approximately 280 species (http://www.reptile-database.org), and are classified into four subfamilies: Cercosaurinae, Gymnophthalminae, Rachisaurinae, and Riolaminae (Goicoechea et al. 2016). Within the Gymntophthalminae, three tribes are recognized: Gymnophthalmini, Heterodactylini, and Iphisini. The latter is distributed in Cis-Andean South America, occurring in several biogeographical regions, including the Amazon, the Dry Diagonal of open forests (Chaco, Cerrado, and Caatinga), and the Atlantic Forest. Species within this tribe exhibit a conservative lacertid morphology, characterized by small size, long tails, and reduced limbs (Rodrigues et al. 2009; Barros et al. 2011).

The majority of published data on the ecology of gymnophthalmid lizards in South America pertain to

taxa from Amazonian or Andean forests (e.g., Rocha 1991; Vitt and Ávila-Pires 1998; Vitt et al. 1998; Doan 2008; Anaya-Rojas et al. 2010) or open forests such as Caatinga and Cerrado (e.g., Vitt and Carvalho 1995; Rocha and Rodrigues 2005; Mesquita et al. 2006a,b; Oliveira et al. 2018; Silva-Neta et al. 2019), with few reports on species from the Atlantic Forest (e.g., Teixeira and Fonseca 2003; Eisemberg et al. 2004; Maia et al. 2011; Garda et al. 2014).

Due to their semi-fossorial habits and restricted distribution, the ecology and natural history of most lizards in the subfamily Iphisini remain unknown. Most species only have scattered information about their diet (Duellman 1978; Barros et al. 2011), distribution, and phylogenetic relationships (Castoe et al. 2004; Rodrigues et al. 2009; Goicoechea et al. 2016; Cacciali et al. 2017). The Pernambuco Teiid (*Stenolepis ridleyi*) is one of the poorly known species of Iphisini. Its distribution is restricted to the

fragmented Atlantic Forest, north of the São Francisco River, and in the Brejos de altitude, in the Caatinga domain (Uchoa et al. 2022; Pereira-Filho et al. 2023), in northeastern Brazil. The distribution of S. ridleyi encompasses the most threatened region of the Atlantic Forest, the Pernambuco Endemism Center, with small, scattered forest fragments, in a matrix of pasture and agricultural monocultures, such as sugarcane (Ribeiro et al. 2009). Although the species is classified as Least Concern in Brazil, at a regional level the species is considered Endangered in the state of Ceará (https://www.sema.ce.gov.br/lista-vermelha-de-especies-ameacadas-da-fauna-do-ceara/lista-vermelha-anfibios-e-repteis/) and Vulnerable in the state of Pernambuco (Bezerra et al. 2021). Here, we gathered data on the diet, sexual dimorphism, reproduction, and parasitism of a population of S. ridlevi in the Biological Reserve of Pedra Talhada, in the state of Alagoas, northeastern Brazil, one of the most important remnants of the Pernambuco Endemism Center.

MATERIALS AND METHODS

Study site.—The Biological Reserve of Pedra Talhada (09°14'22.38"S, 36°25'43.65"W) has an area of 4,469 ha located at the border of Pernambuco and Alagoas states in northeastern Brazil. This protected area is part of the Borborema Mountain range and is composed of Semideciduous Seasonal and Humid forests. It has a pronounced seasonal climate, with a rainy season from May to September and a dry season from October to April. Its annual average precipitation ranges from 1,000 to 1,500 mm, with temperatures varying from 17° to 36° C throughout the year. It has a tropical hot and humid climate, with the predominance of a dystrophic, redyellow podzolic soil (Tabarelli et al. 2005).

Sampling protocol.—We surveyed seven sampling points within the study area (Fig. 1): (1) Sampling Point 01 was secondary forest with shrub-arboreal vegetation, with a presence of leaflitter and without water bodies (09°15'29.4"S, 36°25'47.3"W, 572 m elevation); (2) Sampling Point 02 was a transitional area between primary and secondary forest with a presence of high canopy trees (> 20 m), rocky outcrops, and without water bodies (09°15'07.4"S, 36°25'43.6"W, 711 m elevation); (3) Sampling Point 03 was an area of primary forest with a concentration of large trees (20–30 m) and no bodies of water (09°15'02.3"S, 36°25'36.9"W, 768 m elevation);

(4) Sampling Point 04 was a secondary vegetation area, near a wetland, and with a low predominance of canopy trees (09°14'52.8"S, 36°25'56.8"W, 690 m elevation); (5) Sampling Point 05 was Primary Forest near a permanent stream with a rocky bottom and sandy soil (09°14'50.5"S, 36°25'48.6"W, 698 m elevation); (6) Sampling Point 06 was a rocky outcrop with a predominance of bromeliads and low shrubby vegetation (09°15'16.7"S, 36°25'36.4"W, 789 m elevation); and (7) Sampling Point 07 was a primary humid forest located at the border of the Junco Lake, with rocky outcrops and the presence of leaflitter (09°13'47.1"S, 36°25'09.9"W, 870 m elevation).

We made five field expeditions, each lasting 4–7 d, between August and December of 2012 and March, July, and September of 2013, totaling 24 d of effort in the area. We employed three survey methods at the seven sampling points. First, we used Active Visual Surveys along linear transects (Rödel and Ernst 2004), which consisted of sampling of five 250 m long \times 2 m wide transects, which were surveyed by two researchers. Each person surveyed for 1 h, during diurnal and nocturnal periods. In total, we surveyed sampling points 1-5 four times at night and three times during the day. Second, we used pitfall trap surveys at sampling points 1-5, which included drift fences (Cechin and Martins 2000). Each sampling point had eight 60-L plastic buckets with a 1-m tall plastic fence in a line. We spaced traps 10 m apart, and each trap remained open for 18 d (total effort of 664 traps/d). Sampling points were at least 1 km apart. Finally, in sampling points 6 and 7, we performed random Visual Active Surveys, totaling an effort of 20 h/researcher. We euthanized lizards we caught following the ethical procedures of the Federal Council of Veterinary Medicine - CFMV (2013) with lidocaine hydrochloride 60 mg/kg. Subsequently, we fixed specimens with 10% formaldehyde, stored them in 70% alcohol, and deposited specimens in the Herpetological Collection of Universidade Regional do Cariri, Crato, Ceará, Brazil (URCA-H; SISBIO license 34734-1).

Laboratory protocols.—In the laboratory, we opened the digestive tract of lizards for content analysis using a stereoscope. We identified all items found in the stomach to the lowest possible taxonomic level. Subsequently, when possible, we measured the length and width of items using a digital caliper (\pm 0.01 mm), and we calculated the volume using the formula for an ellipsoid (Vitt 1991).



FIGURE 1. The distribution of the sample points for the dataset of the Pernambuco Teiid (*Stenolepis ridleyi*). The marked area delimits the REBIO Pedra Talhada, state of Alagoas, Brazil.

We calculated the frequency, volumetric and numeric percentages, and determined the importance index based on individual stomachs (IPS) and pooled stomachs (ISS), following the methodology outlined by Mesquita et al. (2015). We calculated the numeric and volumetric niche overlap indices between males and females (Pianka 1973) using the R package spaa (Zhang 2013). Using a digital caliper, we measured nine variables of each lizard: (1) snout-vent length (SVL); (2) tail base length (Tba); (3) body length (axilla-groin distance; BL); (4) head length (HL); (5) head width (HW); (6) head height (HH); (7) labial commissure (LC); (8) forelimb length (FL); and (9) hindlimb length (HLL)

We partitioned the morphometric variation into size and shape components, defining body size as an isometric size variable (Rohlf and Bookstein 1987). We calculated the isometric eigenvector (Jolicouer 1963) and removed the effects of body size from the log10-transformed variables using Burnaby's method (Burnaby 1966). The size-adjusted variables were defined as shape variables. We assessed sex differences through an Analysis of Variance (ANOVA) of our variable body size and used a Logistic Regression on size-adjusted variables to evaluate shape differences. We used Mann-Whitney tests to verify differences between sexes using the size-adjusted variables. All analyses were conducted in R v. 4.2.2.

We determined reproductive condition of males through the direct examination of gonads. We considered females to be adults based on the presence of vitellogenic follicles and/or eggs in the oviducts. The reproductive stages of females followed Garda et al. (2014). The simultaneous presence of eggs and follicles in the oviducts indicated the potential production of more than one clutch during the breeding season. In the case of males, we considered them reproductive when testes were developed, and concurrently, the epididymis were coiled (Ballestrin et al. 2010). We considered the smallest SVL of males and females exhibiting the aforementioned characteristics to be the minimum size at maturity. We used Spearman's Correlations between SVL and egg volume of females and SVL and the number of follicles because the relationship was not linear for either variable and the data did not follow a normal To test for an association between distribution. male SVL and testicular volume, we used Pearson's Product Moment Correlation because the SVL and testis volume data showed an approximately normal distribution, and the relationship appeared to be linear. For all tests, we used $\alpha = 0.05$.

	Sampling points					
Period of the year	01	02	03	04	05	
August 2012			1			
December 2012	2	2	4			
March 2013		1	14	3	1	
July 2013		1	2		1	
Total	2	4	21	3	2	

TABLE 1. Number of individual Pernambuco Teiids (*Stenolepis ridleyi*) per sampling point and time of the year they were collected in the REBIO Pedra Talhada, state of Alagoas, northeastern Brazil.

During the necropsy, we also searched for endoparasites. We thoroughly investigated the gastrointestinal tract, accessory organs (liver, pancreas, and spleen), and lungs. Additionally, we analyzed the coelomic cavity. The collected helminths underwent meticulous cleaning, and we deposited them in a 70% alcohol solution for subsequent analysis. We used Vicente et al. (1993) and Gibbons (2010) to identify parasites. The infection parameters examined included prevalence, mean intensity of infection, and mean abundance of parasites, following the criteria outlined by Bush et al. (1997).

RESULTS

We recorded *S. ridleyi* in all sampling points and vegetation types, from 500 up to 870 m elevation, with higher abundance in Sampling Point 03 (Table 1). We collected 32 individual *S. ridleyi*: 17 adult males, 11 adult females, and four juveniles. We analyzed 32 stomachs of *S. ridleyi*, which contained 27 prey items (84.4%) in six prey categories (Table 2). Orthoptera was the most important item numerically (47.8%) and volumetrically (67.8%), with an ISS of 57.3 and an IPS of 54.7, followed by Isoptera, Blattaria, and Aranea, respectively. We found a low niche overlap between males and females, numerically (0.71) and volumetrically (0.60), indicating similar prey items for both sexes (Huey and Pianka 1977).

Sexual dimorphism was observed in *S. ridleyi*. Average (\pm standard deviation) male body size (3.31 \pm 0.16 mm) was significantly larger than that of females (3.09 \pm 0.18 mm; F_{3,223} = 11.73, *P* < 0.001). Females were proportionally longer in snout-vent length and body length, while males had larger heads and more elongated forelimbs (Table 3). Males lacked fissures in the anal plate (present in females) and had two pre-anal pores and four femoral pores (absent in females). Sexual color dichromatism was also evident, with males displaying dark coloration on the flanks (dark-brown or black) with white spots and an orange venter. Females and juveniles lacked a



FIGURE 2. Images of the Pernambuco Teiid (*Stenolepis ridleyi*) from REBIO Pedra Talhada, northeastern Brazil. (A) Dorsal and (B) ventral views of adult female. (C) Dorsal and (D) ventral views of adult male. (Photographed by Igor J. Roberto).

TABLE 2. Food items (by invertebrate order) in the diet of the Pernambuco Teiid (Stenolepis ridleyi) showing values (± standard deviation
in the REBIO Pedra Talhada, state of Alagoas, northeastern Brazil. Abbreviations are $f =$ frequency, $n =$ number, $v =$ volume, and the
importance indices based on individual stomachs (IPS) and pooled stomachs (ISS).

Food Item	f	f%	n	n%	V	V%	IPS	ISS
Araneae	3	9.68	$5 (\pm 0.69)$	10.87 (± 25.05)	274.9 (± 39.25)	11.82 (± 27.51)	10.79	9.73
Blattaria	4	12.9	$4 (\pm 0.39)$	8.7 (± 25.48)	295.8 (± 37.70)	12.72 (± 26.15)	11.44	10.70
Isoptera	7	22.6	13 (± 1.01)	28.26 (± 36.87)	92.72 (± 7.65)	3.99 (± 34.73)	18.28	18.66
Coleoptera	1	3.23	1 (± 0.21)	2.17 (± 10.66)	22.44 (± 4.78)	$0.96 (\pm 4.09)$	2.12	1.57
Hymenoptera	1	3.23	1 (± 0.21)	2.17 (± 7.11)	63.64 (± 13.57)	2.74 (± 11.71)	2.71	2.01
Orthoptera	15	48.4	22 (± 1.02)	47.83 (± 45.19)	1,576.1 (± 109.94)	67.77 (± 46.74)	54.66	57.33

colored pattern on the flanks, exhibiting light brown flanks and a cream-to-white venter (Fig. 2).

We found reproductive females in stages I (differentiated follicles, slightly convoluted oviduct) and II (well-developed ovarian follicles, developed oviduct, but no eggs) between March and December. We found females in stage III (two eggs in the oviduct) in March and August (Table 1). The smallest mature female was 35.94 mm SVL. The average egg volume was 101.4 ± 9.5 mm³, and the number of follicles present in all stages was 4.3 ± 1.3 . The female reproductive pattern indicated a continuous breeding period, with at least two egg deposition periods, one at the end of the dry season and another at the end of the rainy season. There was no significant correlation between SVL and mean egg volume (P = 0.170) for four females or between SVL and the number of follicles (P = 0.300) of seven females.

From March to July, the proportion of 14 reproductive males increased, with a higher peak in March. The smallest sexually mature male measured 47.18 mm SVL. The mean testis volume of 18 males was 16.4 ± 3.8 mm³. Males showed a significantly positive correlation between SVL and testis volume

(r = 0.77, t = 5.03, P = 0.020).

Of the 32 lizards we examined, 13 were infected with at least one species of parasite, with a total prevalence of 40.6%. We collected 170 helminths, with a mean total richness of 0.44 ± 0.10 (standard deviation). The helminth fauna of *S. ridleyi* was composed of three taxa: *Cosmocerca* sp., *Mesocoelium monas*, and one unidentified species of Acanthocephala. The most prevalent and abundant taxon was *Cosmocerca* sp. (P = 37.5%; AM = 5.2; Table 4). Five females (P = 45.45%) and eight males (P = 47.06%) were parasitized by at least one host. Females had higher AMP and MII (8.9, 19.1, respectively) than males (4.0, 9.0, respectively).

DISCUSSION

Stenolepis ridleyi is the most abundant Gymnophthalmidae lizard in the REBIO Pedra Talhada, occurring along a gradient of 500 up to 900 m elevation in dry and humid forest sites (Roberto et al. 2015). Most of the information about the species distribution indicates its rarity in the states of Ceará and Pernambuco (Roberto and Loebmann 2016; Bezerra

TABLE 3. Average morphometric measurements for male and female Pernambuco Teiids (*Stenolepis ridleyi*) from Pedra Talhada Biological Reserve, Alagoas, Brazil. Values represent mean \pm standard deviation of isometric body size and shape (size-free) variables. Raw values (mm) are in parentheses. U and P values are from Mann-Whitney tests comparing shape variables between sexes.

Variables	Male	Female	U	P	
Body size	3.31 ± 0.16	3.09 ± 0.18			
Snout-vent length	$0.62 \pm 0.01 \ (53.8 \pm 6.2)$	$0.65\pm 0.01\;(48.4\pm 6.8)$	-4.187	0.001	
Tail base	$-0.38\pm0.02\;(5.3\pm0.8)$	$-0.40\pm0.03\;(4.3\pm0.7)$	-2.352	0.020	
Body length	$0.37\pm 0.02\;(30.1\pm 3.3)$	$0.41 \pm 0.02 \; (28 \pm 4.4)$	-3.481	0.003	
Head length	$-0.06\pm0.02\;(11.1\pm1.6)$	$-0.06\pm0.02\;(9.4\pm1.1)$	0.376	0.710	
Head width	$-0.26 \pm 0.02 \; (7.1 \pm 1.2)$	$-0.28\pm0.04~(5.7\pm0.7)$	-1.552	0.120	
Head height	$-0.34\pm0.03\;(5.9\pm1.1)$	$-0.39\pm0.03\;(4.4\pm0.7)$	-3.481	0.001	
Labial commissure	$-0.15\pm0.02\;(9\pm1.2)$	$-0.16\pm0.02\;(7.4\pm1.2)$	-0.847	0.400	
Forelimb length	$-0.03\pm0.03\;(11.7\pm1.1)$	$-0.003 \pm 0.04 \; (10.7 \pm 1.3)$	-2.117	0.030	
Hindlimb length	$0.23\pm 0.03\;(21.6\pm 2.0)$	$0.23\pm 0.02\;(18.5\pm 2.4)$	-0.611	0.540	

TABLE 4. Endoparasites of the Pernambuco Teiid (*Stenolepis ridleyi*) from REBIO Pedra Talhada, northeastern Brazil. Metrics given are the number of helminths (NH), amplitude of infection (AMP), prevalence (P), mean abundance and standard deviation (MA \pm SD), mean intensity of infection and standard error (MII \pm SE), and site of infection (SI): stomach (STO), small intestine (SIT), large intestine (LGI), or cavities (CAV).

	,					
	NH	AMP	P (%)	$MA\pm SD$	$MII\pm SE$	SI
Nematoda						
Cosmocerca sp.	166	0–56	37.5	5.19 ± 2.31	13.83 ± 5.4	SIT/LGI
Acanthocephala						
Cystacanths	3	0-1	9.38	0.09 ± 0.05	1.0 ± 0.0	CAV
Trematoda						
Mesocoelium monas	1	0–1	3.13	0.03 ± 0.03	1.0 ± 0.0	STO

et al. 2021), where it is classified as Endangered and Vulnerable, respectively. The REBIO Pedra Talhada appears to have an abundant population of *S. ridleyi*. This protected area is a key biodiversity area for the conservation of several squamates, including endemic and endangered species such as the snakes Forest Land Snake (*Atractus caete*), Head-striped Leaf-litter Snake (*Echinanthera cephalomaculata*), and *Leposoma baturitensis* (no common name; Roberto et al. 2015; Pereira-Filho et al. 2023).

Gymnophthalmid lizards are known as wideranging active foragers and predators (Rocha 1994; Vitt and Zani 1998). *Stenolepis ridleyi* at the REBIO Pedra Talhada is an opportunistic predator, including in its diet of low-vagility and colonial insects (termites) and active prey such as Blattaria and Orthoptera. We observed *S. ridleyi* foraging in different microhabitats in the REBIO Pedra Talhada: on the leaflitter, fallen logs, and rock surfaces inside the forest. Its lacertiform body shape, as opposed to a serpentiform shape, can facilitate the exploration of more microhabitats and consumption of a wide variety of prey by this lizard (Grizante et al. 2012).

The predominance of grasshoppers/crickets, roaches, and spiders has also been found in diets of other leaf-litter lizards with lacertiform bodies, such as other microteiid genera Micrablepharus, Alopoglossus, Cercosaura, Colobosaura, and *Ecpleopus* (Vitt et al. 1998, 2007; Barros et al. 2011; Maia et al. 2011; Dal Vechio et al. 2014). A similar dietary pattern with a preference for a particular food category can reflect prey item availability, predator preferences (Santos et al. 2012), or the evolutionary history of closely related species (Vitt et al. 2007). In the Iphisini, there is little information regarding diets of species in this tribe; however, there is information available for a leaf lizard, Colobosaura modesta, a closely related species to S. ridlevi. This species also shows a similar dietary preference and explores similar microhabitats (Barros et al. 2011), suggesting that the phylogenetic history follows this feeding pattern (Vitt and Zani 1998; Vitt et al. 2007).

Male *Stenolepis ridleyi* are larger than females and this pattern is also found in other gymnophthalmid and alopoglossid lizards (Ramos-Pallares et al. 2010; Garda et al. 2014; Silva-Neta et al. 2019). It is usually correlated with reproductive success, where larger males are more selected by females, can have access to mating, and provide advantages in male-male combat (Anderson and Vitt 1990). Larger hindlimbs in males have more muscle mass, which can increase fitness while helping in territorial maintenance and protection and the acquisition of females (Kaliontzopoulou et al. 2010; Juri et al. 2018).

Sexual dichromatism, as found in *Stenolepis ridleyi*, is characteristic of the Iphisini tribe (Rodrigues et al. 2007) and is also seen in the microteiids *Alexandresaurus*, *Colobosaura*, *Acratosaura*, and *Iphisa* (Rodrigues et al. 2007). Sex differences in coloration can be due to behavior and environmental pressures acting differently in both sexes and could be related to natural selection or sexual selection (Chen et al. 2012). It is not clear, however, what the possible causes of sexual dimorphism in color pattern are in Iphisini lizards.

Many tropical lizards have a continuous breeding period, with two or more clutches per year (Oliveira et al. 2014; Mesquita et al. 2015; Ribeiro et al. 2015). In the Atlantic Forest, the few ecological studies carried out with gymnophthalmid lizards indicate a prolonged reproductive season, with females with simultaneous reproductive stages, and multiple clutches of two eggs during the year (Vitt 1992; Balestrin et al. 2010; Garda et al. 2014). The fixed two egg clutch is a synapomorphy for the Gymnophthalmidae (*Stenolepis ridleyi* follows this pattern, similar to another sympatric species, the leaf lizard *Dryadosaura nordestina*; Garda et al. 2014). Females of both species are reproductive all year, with a reproductive peak between the end of the dry season to the end of the raining season. The apparent limited influence of seasonality on the reproduction of these species may indicate greater climatic stability in these areas, favoring reproduction all year (Ramos-Pallares et al. 2015).

We made the first records of parasitism in Stenolepis ridleyi, which is a paratenic host (the development of the parasite does not occur inside the intermediary host) of Acanthocephala and a definitive host of Cosmocerca sp. (Nematoda) and Mesocoelium monas (Trematoda). In a recent compilation of the parasites infecting reptiles in northeastern Brazil (Lacerda et al. 2023), there are only seven records for gymnophthalmid lizards as hosts: a leaf lizard, Acratosaura mentalis, Colobosauroides cearensis (no common name), blue-tailed lizards Drvadosaura Micrablepharus nordestina and maximiliani, Notobachia (Notobachia ablephara), Rodrigues's Red Teiid (Procellosaurinus ervthrocercus), and the Red-tailed Lizard (Vanzosaura multiscutata). All species have small body sizes and a low diversity of endoparasites (1-5). A similar pattern was found for S. ridleyi, with only three species. Only Dryadosaura nordestina shares one species of endoparasite with S. ridlevi, Cosmocerca sp., but with a low infection rate (Teixeira et al. 2018). In S. ridleyi, Cosmocerca sp. was the most abundant species of helminth, with the highest prevalence reported for Cosmocerca in gymnophthalmid lizards (Bursey and Goldberg 2004; Teixeira et al. 2018). Species of the genus Cosmocerca have monoxene cycles (restricted to a single host), and infection usually occurs through the entry of larvae into the integument (Bursey and Goldberg 2004). Cosmocerca larvae remain in small droplets of water (Anderson 2000), and the highest prevalence of Cosmocerca sp. may be related to the way of life of S. ridleyi, which inhabits the humid litter of forests.

Mesocoelium monas is a common parasite of reptiles and amphibians (Bursey et al. 2007; Ávila and Silva 2010). In Gymnophthalmidae, *M. monas* previously has been recorded only in the Masked Lizard (*Cercosaura eigenmanni*; Bursey and Goldberg 2004). The species has a complex life cycle and can have two intermediate hosts, the first a mollusk and the second an arthropod or another mollusk, while the definitive host is mainly a vertebrate (Cribb et al. 2003). The presence of the parasite in *S. ridleyi* may be linked to the ingestion of metacercariae present in the second intermediate host (Cribb et al. 2003). Infection of cystacanths was probably through

feeding because termites have already been recorded as intermediate hosts of acanthocephalans (Nickol et al. 2006; Amato et al. 2014) and was the second most frequent item in the diet of *S. ridleyi* (see Table 2).

We provide new information on diet, reproduction, sexual dimorphism, and parasitism for the Iphisini tribe. Our results elucidate the life-history aspects of a rare and elusive small lizard from the most threatened region in the Atlantic Forest. We highlight the importance of the REBIO Pedra Talhada as a key area for the protection of *Stenolepis ridleyi* and other endemic and threatened squamates that occur in the northern Atlantic Forest.

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