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FIRST CHECKLIST OF THE NON-ACARINE ARACHNIDS (CHELICERATA: ARACHNIDA) OF THE CHAPADA DIAMANTINA NATIONAL PARK, BRAZIL

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ABSTRACT

This work aims to provide regionalized information on the non-acarine arachnids inhabiting the Brazilian Chapada Diamantina National Park (PARNA-CD), and its surroundings, to support studies for protecting endemic species and preventing human accidents by these animals. We used registers of five arachnological collections covering 36 years, validated by the world catalogs of each order. We found 67 arachnid species from five orders, 42 families, in the six municipalities surrounding PARNA-CD. Araneae (54 species) and Scorpiones (ten species) were the most representative orders. We found no records of the other orders except for Pseudoscorpiones (two species) and Amblypygi (one species). Only one spider species (*Tmesiphantes hypogeus*), and two scorpions (*Troglorhopalurus lacrau* and *T. translucidus*) were assessed on the IUCN criteria for conservation. Twenty-six species are endemic to Brazil, of which five have no records in any location other than PARNA-CD. At least one medically important species was encountered in each municipality, from the genera: *Latrodectus, Loxosceles, Phoneutria*, and *Tityus*. Given the recent rate of human-mediated changes (undue land-use) where several Brazilian caatinga areas were exposed, endemic species from this list should be the priority target for long-term ecological and behavioral studies.

Key-words: Arachnids, Biodiversity, Caatinga, Bahia.

RESUMEN

Primera lista de los arácnidos no acarinos (Chelicerata: Arachnida) del Parque Nacional Chapada Diamantina, Brasil. Este trabajo tiene como objetivo proporcionar información regionalizada sobre los arácnidos no-acáridos del Parque Nacional Chapada Diamantina (PARNA-CD, Brasil) y sus alrededores, para apoyar estudios destinados a protección de especies endémicas y prevención de accidentes humanos causados por estos. Utilizamos registros de cinco colecciones aracnológicas que abarcan 36 años, y de los catálogos mundiales de cada orden. Encontramos 67 especies de arácnidos de cinco órdenes y 42 familias en los seis municipios alrededor del PARNA-CD. Araneae (54 especies) y Scorpiones (dies especies) fueron los más representativos. No encontramos registros de otros órdenes, excepto Pseudoscorpiones (dos especies) y Amblypygi (una especie). Solo una especie de araña (*Tmesiphantes hypogeus*) y dos escorpiones (*Troglorhopalurus lacrau y T. translucidus*) están evaluados según los criterios de la UICN para la conservación. Veintiséis especies son endémicas de Brasil, donde cinco no tienen registros en ningún otro lugar que PARNA-CD. Se encontró al menos una especie de importancia médica en cada municipio, de los géneros: *Latrodectus*, *Loxosceles*, *Phoneutria*, *Tityus*. Dado el ritmo de cambios mediados por humanos (uso indebido de la tierra), en áreas de caatinga brasileña, las especies endémicas de esta lista, deberían ser el objetivo prioritario de estudios ecológicos y conductuales a largo plazo.

Palabras clave: Arácnidos, Biodiversidad, Caatinga, Bahía.

INTRODUCTION

The Chapada Diamantina National Park (PARNA-CD) is part of the ecoregion of Chapada Diamantina (Diamond Plateau), in the center of Bahia, northeast of Brazil (geographic coordinates: 12°20' - 12°25'S, 41°35' - 41°15'W). It is a Conservation Unit with "full protection" status, spanning 1,520 km² across six municipalities: Andaraí, Ibicoara, Itaeté, Lençóis, Mucugê, and Palmeiras (CNUC[1]). It is considered the main ecotourism hub in the State of Bahia (Santos, 2016), and one of the most representative Brazilian caatinga biome. Its name derives from the ecoregion

where it is located and refers to the mining activities that were intensely carried out dating back to the 19th century. This region became economically important in the early 1990s, due to diamond mining, and more recently, ecotourism. Both activities heavily impacted the environment, even more, understanding it is there that almost all of the principal rivers of Bahia, like Paraguaçu, Jacuípe, and Rio de Contas basins are born (SP, 2014).

All the ecoregion is formed by a set of mountains and plateaus of sedimentary origin as an extension of the Serra do Espinhaço (Espinhaço Mountain Range), which stretches from Minas Gerais to Bahia (Rocha, Chaves, Rocha, Funch and Juncá, 2005). It is important to know that The Espinhaço Mountain Range was named a Biosphere Reserve by UNESCO[2], and represents the largest and most continuous Precambrian orogenic belt in Brazilian territory, serving as a water divider between the São Francisco river basin and the hydrographic basins that flow directly into the Atlantic Ocean.

The entire region falls within the Caatinga biome but exhibits a mix of rocky countryside vegetation, Brazilian cerrado, and varying degrees of humid forest remnants (Velloso, Sampaio and Pareyn, 2002; Gonçalves and Azevedo-Gonçalves, 2016). The "campo rupestre" ("rupestrian grassland") characterizes the montane vegetation of the Espinhaço Range, is found at altitudes from 900 to 2.033 meters, and is characterized by dry winters and wet summers, strong winds, and high levels of irradiance (Silveira et al., 2016). It is the highest region within the Caatinga biome, forming a natural watershed where rivers flow into the São Francisco basin (Velloso et al., 2002). Endemism is a characteristic of this region due to its semi-arid climate, high potential evapotranspiration throughout the year, and low and erratic rainfall (MMA, 2007).

The PARNA-CD, like the entire Chapada Diamantina, is characterized by sedimentary terrain in stacked layers, which result from the alternation of geological environments that prevailed in the past. Ancient deserts, rivers, and their mouths, beaches, lakes, and marine environments alternated successively throughout geological time. Limestones, originating from ancient seas or lakes, are also present and, in the lands where they occur, are responsible for the formation of numerous natural cavities, such as caves, grottoes, and sinkholes, shaping underground environments and further contributing to the location of the diversity (MMA, 2007). There are 28 caves registered in PARNA-CD by the Brazilian National Cave Registry (CNC[3]): Andaraí-7, Ibicoara-2, Itaeté-3, Lençóis-1, Mucugê-2, and Palmeiras-13. In addition to the contribution they can make to science, caves are resources used to enrich public visits, such as Gruta do Lapão (Lençóis), Gruta do Castelo (Mucugê) and Gruna do Brejo (Andaraí). Many others have priority research and preservation potential, and cannot be visited (MMA, 2007). It is important to note that all caves in Brazil are property of the Union (Brazilian government) (CRFB-Brasil, 1988). In Bahia, they are areas of permanent protection (CRFB-Bahia, 1989). They are inalienable assets, and even though sustainable exploitation by private individuals such as tourism, is allowed, the relationship will be governed by public law norms rather than private law (Ribas and Carvalho, 2009).

Despite being one of the oldest UCs (Conservation Units) created in the country (Decreto nº 91.655 Brasil, 1985) and its Management Plan dating back to 2007 (MMA, 2007), the PARNA-CD still needs comprehensive studies on its biodiversity. Among the available literature, the representation of animal groups still shows an imbalance. A bibliographic examination using the main search databases identified about 100 works concerning fauna diversity within the Chapada Diamantina National Park. Besides, around 30 publications address arachnids in the PARNA-CD in some way, but none of them refers to an arachnid regional checklist. Knowledge of the regional fauna was limited to scattered publications focused on specific groups until the work organized by Juncá, Funch, and Rocha in 2005. This was the first to present faunal inventory results of the area. Nevertheless, it covered only part of the region and included just eight animal groups: four invertebrates (Insecta: wasps, bees, beetles, and dipterans) and four vertebrates (fish, reptiles, amphibians, and mammals). The arachnids of this region are best known for articles on underground fauna, most published by researchers from the Laboratory of Underground Studies at the Federal University of São Carlos, in S. Paulo (Trajano and Bichuette, 2010 a, b; Gallão and Bichuette, 2016; Trajano, Gallão and Bichuette, 2016).

Arachnids comprise a group of chelicerates with 16 orders (Ruggiero et al., 2015) covering 95.972 species worldwide (COL[4]). The best-known and most studied are terrestrial ones, such as spiders, scorpions, and parasitic mites. Coexistence with humans, mainly combined with the poisonous potential of some species, leads arachnids to have medical and/or agricultural importance, given the high frequency and severity of accidents that occur in various parts of the world and the damage caused by some mites to vegetable crops. Spiders and scorpions have been involved in human accidents and are considered an alarming public health

[1] Cadastro Nacional de Unidades de Conservação (National Register of Conservation Units)- CNUC: https://cnuc.mma.gov.br/

[2] United Nations Educational, Scientific and Cultural Organization-UNESCO. https://www.unesco.org/en/mab/espinhaco-range?hub=66369

[3] https://sbecnc.org.br/Regions.aspx#BA

[4] https://www.catalogueoflife.org/data/taxon/CCQKT, accessed on August 25, 2024.

issue, especially in Brazil where scorpion accidents have continuously and significantly increased over 12 years (2000-2012) (Reckziegel and Pinto, 2014). In 2023, the Northeast region reported the second-highest number of scorpion sting cases (76.893 notifications), where Bahia was the third Brazilian state with the highest frequency of reported cases (11.13%) and the second one for registered deaths (19.60%) (DATASUS-TABNET, 2024).

Historically, arachnids have been poorly studied in Northeast Brazil, especially in dry or semi-arid areas. The last major data compilation on arachnids from the Brazilian Semi-arid region, published in 2016, presented only 323 species, including 271 spiders, 28 scorpions, and 24 harvestmen (Carvalho and Oliveira, 2016). It is a meager species number if we consider the vast area covered, approximately 900.000 km², spanning nearly 8% of the national territory across nine states—an area larger than the combined territories of Spain and Portugal (Santos, 2016). One concerning factor is that these few species are known from a minimal number of records. About 200 species are known from only a single record. Besides, there are no compilations of information on other arachnid groups (e.g., amblypygids, mites, schizomids, etc.) in this region (Carvalho and Oliveira, 2016). This scenario is associated with the lack of financial incentives for research and a shortage of taxonomist arachnologists, mainly in the Northeast, North, and Central-West regions (Marques and Lamas, 2006; Oliveira, Brescovit and Santos, 2017).

Unlike the Atlantic Forest, the other Brazilian biomes are very little known regarding their arachnid fauna's species richness and composition. Most of the areas of these biomes still need records, and those already sampled had very few. In general, relatively well-sampled regions were restricted to easily accessible locations such as nearby cities, highways, or rivers. Thus, sampling effort is generally concentrated in small areas, typically easier to access, such as near highways or along the rivers. This collection bias may have strong implications for scientific knowledge and conservation. Thus, future studies on distant locations can considerably change the knowledge about species distribution throughout Brazilian territory (Oliveira et al., 2017).

The last published data on spiders recorded in Brazil was held in 2017 and shows 3.103 species, grouped into 649 genera and 71 families (Oliveira et al., 2017). There, the authors evaluated the influence of the spatial distribution of sampling efforts on the assessment of spider species richness in Brazil. They agreed that the Caatinga was the least sufficiently sampled, as this was the biome with the largest relative difference between the observed and estimated species richness. However, with only about 26% of their area examined, they found 72 endemic species (Oliveira et al., 2017), reinforcing the importance of prioritizing studies in this biome. The latest checklist for Bahia recorded around 400 spiders (Lira-da-Silva, 2011).

The scorpion fauna of Brazil currently consists of 182 species, grouped into 27 genera and four families (Bertani, Giupponi and Moreno-Gonzáles, 2024). It is not an impressive number if we think about the order Araneae, but the percentage of endemism mainly in the state of Bahia (25%) (Brazil and Porto, 2010; Porto, Brazil and Lira-da-Silva, 2010a) makes this group an expressive one. In Bahia, there are records of 30 species of scorpions (Bertani et al., 2024) in all biomes and phytophysiognomies, from the coastal zone to the high-altitude areas of the state. Still, Caatinga stands out for housing the greatest wealth of species (22), which represents almost 80% of the state (Porto et al., 2010a).

Among the lesser-known non-acarine orders, only eight have species registered in Brazil: Amblypygi (16 species), Palpigradi (3), Pseudoscorpiones (166), Ricinulei (9), Schizomida (11), Solifugae (9), Uropygi (7) (Harvey, 2013 a, b, c, d, e, f, g) and Opiliones (950) (Kury et al., 2023). Opiliones and Pseudoscorpiones are the best known. Information on lesser-known arachnids or smaller non-acarine groups remains limited and challenging to locate. The most complete world list of these orders can be found in the catalogs authored by Harvey (2003, 2013 a, b, c, d, e, f, g) from the Western Australian Museum[5]. However, Opiliones were not addressed there. For this taxa, Kury's *Laniatores Catalog* (Kury, 2003) and the *World Catalogue of Opiliones* (Kury et al., 2023) remain reliable sources about the group. In the case of acarines Sarcoptiformes and Trombidiformes (superorder Acariformes), as well as Holothyrida, Ixodida, Mesostigmata, and Opilioacarida (superorder Parasitiformes), no reliable records or recent catalogs provide a clear estimation of the orders present in Bahia. In this section, we will not delve into the group formerly known as Acari. Given recent taxonomic changes, the classification of this group has shifted significantly, and discussing it in detail would go beyond the scope of this work. Besides, no comprehensive work or listing is available, and the overall picture of these groups is incomplete for the region.

As we can see, despite its importance as a Brazilian conservation unit, records of the biodiversity in Chapada Diamantina National Park (PARNA-CD) are still scarce. In this article, we present the first annotated non-acarine arachnids list of PARNA-CD and its surroundings, in order to support studies not only for the effective protection of endemic species but also for the prevention of human accidents caused by these animals.

[5] https://museum.wa.gov.au/catalogues-beta/

MATERIAL AND METHODS

Animal data were obtained by the registers listed in five arachnological collections covering 36 years: 1988 (the date of the first arachnid record in one of the five collections) to 2024, in addition to Kury's Laniatores Catalog (Jury, 2003), and Harvey's Catalogues (Harvey, 2013 a, b, c, d, e, f, g). The records search was carried out by selecting the municipalities included in PARNA-CD: Andaraí, Ibicoara, Itaeté, Lençóis, Mucugê, and Palmeiras. We organized them in Excel spreadsheets, according to taxa, municipality of occurrence, number of records in the collections, and types of environments, which can be consulted in the Appendices of this work. Specimens are deposited in the following taxonomic collections (curators indicated in parentheses):

MHNBA - Museum of Natural History of Bahia, Federal University of Bahia, Salvador (T.K. Brazil) (n = 323 registers).

UFMG - Federal University of Minas Gerais (A.J. Santos) (n =10 registers).

UBTU - Spiders collection (Araneae) from Unesp, São Paulo State University (I.M.P. Rinaldi) (n = 52 registers).

IBSP – Butantan Institute, São Paulo (A.D. Brescovit) (n = 111 registers).

MNRJ - National Museum of Rio de Janeiro (A.B. Kury) (n = 17 registers).

All records from MHNBA, UFMG, and UBTU are available on the SpeciesLink platform (https://specieslink.net/) under the acronyms: UFBA-ARA, UFBA-ESC, UFBA-AMB, UFBA-OPI, UFBA-PSE (Arachnological Collection of the Museum of Natural History of Bahia), UFMG-ARA (Arachnological Collection of the UFMG Taxonomic Collections), and UBTU (Spiders collection (Araneae) from Unesp). All the MHNBA specimens were analyzed by the authors. Data from the IBSP and MNRJ collections were kindly provided by their respective curators.

The identified spiders and scorpions were validated by consulting the World Spider Catalog (2024) and The Scorpion Files (Rein, 2024) websites. Amblypygids, harvestmen, and pseudoscorpions were validated by Harvey's Catalogues (Harvey, 2013 a, f, g). Arachnids's English common names follow The American Arachnological Society (AAS, 2003). Geographic coordinates were obtained from the original record (when provided). Taxons without information on geographic coordinates were georeferenced using the SpeciesLink geoLoc tool (http://splink.cria.org.br/geoloc) for municipalities. The research area map was produced using the QGIS 3.34.6 software (QGIS Development Team, 2024). The base map was added by installing the QuickMapServices plugin via the Manage and Install Plugins menu, followed by selecting Google Satellite from the QuickMapServices; South America 2021, and BR/BA UF 2022 were sourced from the IBGE maps portal. The Chapada Diamantina National Park (PARNA-CD) boundaries were obtained from the Chico Mendes Institute for Biodiversity Conservation (ICMBio).

To evaluate the conservation status, we considered only the species-level identifications. For every species data related to regional, national (ICMBio, 2018), and global presence (IUCN, 2024a) in a conservation status, were collected. We used the conservation categories of The IUCN Red List Categories and Criteria (version 3.1): Extinct-EX, Extinct in the Wild-EW, Critically Endangered-CR, Endangered-EN, Vulnerable-VU, Near Threatened-NT, Least Concern-LC, Data Deficient-DD, Not Evaluated-NE (IUCN, 2024b). We consider species endemic to Brazil those that have not been recorded in any other country since their description, and local endemic ones, those that have not been recorded in any other locality than inside the PARNA-CD, after its description. To identify the records, we consulted the respective catalogs of each order. We took as a reference the work of Noguera-Urbano (2017), in an ecology and conservation approach, where endemism is interpreted concerning a geographic area of reference and within a specific period.

As medical or potentially medical importance species, we consider any species contained in the genera established by the Brazilian Ministry of Health[6] to be of medical importance. Those that have not yet been studied clinically or epidemiologically, were considered as potentially important from a medical point of view. We consider here the approach of Ward, Ellsworth and Nystrom (2018) and Rein and West (2024[7]), that harmless species, especially the ones closely related to those known to be dangerous, can also pose a threat to humans and should still be considered clinically relevant.

Research Area

The research area was restricted to the six municipalities of the PARNA-CD: Andaraí, Ibicoara, Itaetê, Lençóis, Mucugê, and Palmeiras (Fig. 1). The Park was created to enhance the Serra do Sincorá (Sincora Range) environment. Its management is under the ICMBio's responsibility, under the National System of Conservation Units (CNUC) (MMA, 2007). Inside the PARNA-CD there are some areas of conservation units at the state administrative level, like APA Marimbus-Iraquara (Lençóis), RPPN Córrego dos bois (Palmeiras), RPPN Adilia Paraguaçu (Mucugê), or municipal administrative levels like Mucugê Municipal Park (Mucugê), and Rota das Cachoeiras Municipal Natural Park (Andaraí) (SNUC[8]).

[6] https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/a/animais-peconhentos

[7] https://www.ntnu.no/ub/scorpion-files/medicallist.php

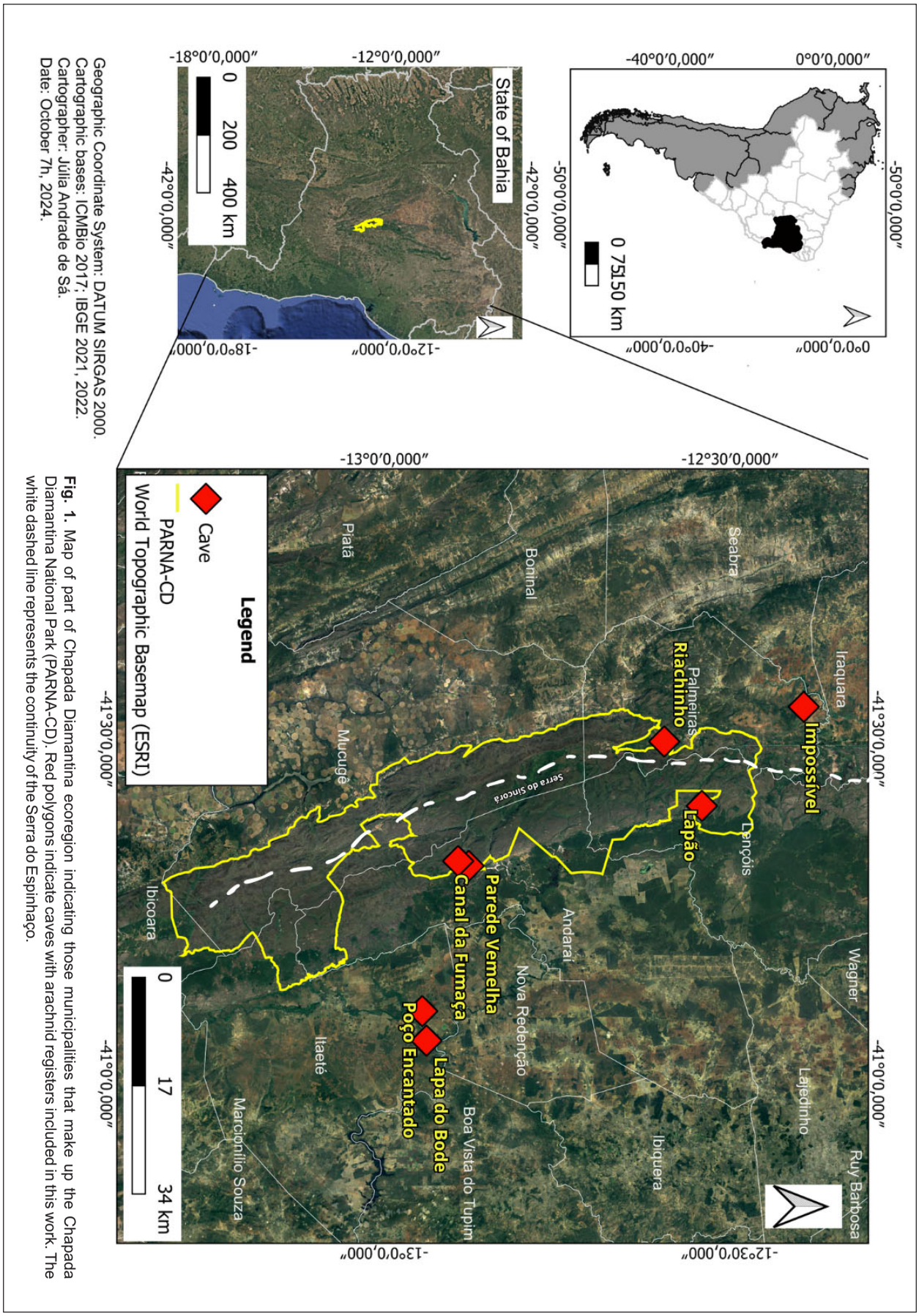

Fig. 1. Map of part of Chapada Diamantina ecoregion indicating those municipalities that make up the Chapada Diamantina National Park (PARNA-CD). Red polygons indicate caves with arachnid registers included in this work. The white dashed line represents the continuity of the Serra do Espinhaço.

The Sincorá range is an orographic system of north-south trend (coordinates: 12°15' - 13°45'S and 41°10' - 41°30'W) distant from the city of Salvador, the capital of the state, in about 400 km. The rocks that form the Sincorá range are mostly sandstones and conglomerates with diamond-bearing and have been washed since their discovery in 1844. After the discovery of diamonds in the Mucugê region, in 1844, the entire mountainous region was explored for approximately 25 years, mining from the Sincorá River to the Afrânio Peixoto region (south-north direction). Mining was intense, especially in the Andaraí and Igatu regions, where tailings from old mines can still be seen along the road. Diamond mining began to decline from 1871 onwards, and mechanized mining was introduced in the riverbeds inside and outside PARNA-CD, but they were definitively closed in March 1996 (Pedreira, 2001). Nowadays the most impactful activities in the region are the fires (mainly in the cities of Ibicoara, Mucugê, and Palmeiras) and the tourist flow, which the most affected areas are not specified in the Management Plan (MMA, 2007).

RESULTS AND DISCUSSION

In total, we found 67 arachnid species from five orders and 42 families, registered in the six municipalities of the PARNA-CD. As expected, the most representative orders were Araneae (54 species) and Scorpiones (ten species). Except for Pseudoscorpiones (two species) and Amblypygi (one), we found no species records of the other orders (APPENDICES A, B, C). We can consider these low numbers worrying, given the territorial extension of the six municipalities (approximately 8.00 km²) and the importance the biodiversity of PARNA-CD has for Brazil, and for the world (as a Biosphere Reserve).

The species records indicate no assessments of survival conditions for the majority (NE or DD= 64) (95.5%) (Tables 1, 2, 3). Most spiders and scorpions do not have data that could be evaluated within the IUCN evaluation criteria. Only one species of spider is considered CR (*Tmesiphantes hypogeus* Bertani, Bichuette and Pedroso, 2013) in Andaraí (Table 1), and two scorpions EN (*Troglorhopalurus lacrau* (Lourenço and Pinto-da-Rocha, 1997)) in Itaeté, and (*Troglorhopalurus translucidus* Lourenço, Baptista and Giupponi, 2004) in Lençóis (Fig. 2 A, B, C, D, Table 2). On the other hand, 26 species are endemic to Brazil, of which three spiders and two pseudoscorpions have no records in any location other than PARNA-CD and could be locally endemic (Tables 1, 3). In addition to being endemic, some are restricted to caves, which makes them even more fragile. We found 16 species registered in caves (12 spiders, two scorpions, and two pseudoscorpions), in Andaraí, Itaeté, Lençóis, and Palmeiras (APPENDICES A, B, C). We can understand that the fragile survival of these endemic cave species is directly related to the lack of long-term ecological and behavioral studies.

At least one species of each genus of medical importance was encountered in each municipality, between the seven spiders (Table 1), and five scorpions (Table 2). There were two *Latrodectus* species (*L. geometricus* C. L. Koch, 1841*; L. gr. mactans*) (Fig. 3 A, B), three *Loxosceles* (*L. chapadensis* Bertani, Fukushima and Nagahama, 2010*, L. karstica* Bertani, von Schimonsky and Gallão, 2018*, L. similis* Moenkhaus, 1898) (Fig. 3 C, D), two *Phoneutria* (*P. eickstedtae* Martins and Bertani, 2007, *P. nigriventer* (Keyserling, 1891)) (Fig. 3 E, F)*,* and five *Tityus (T. serrulatus* Lutz and Mello, 1922*, T. aba* Candido, Lucas, de Souza, Diaz and Lira-da-Silva, 2005*, T. kuryi* Lourenço, 1997, *T. neglectus* Mello-Leitao, 1932*, T. martinpaechi* Lourenço, 2001) (Fig. 4 A, B, C, D, E) that we can consider of medical (*T. serrulatus*) or potentially medical importance (the four others) in the boundaries of the PARNA-CD (Tables 1, 2). None of these species are recognized as any reported accident in Bahia (except *T. serrulatus*), which does not mean they can't be. Accidents reported by the Bahia health team have a suggestive diagnosis based on clinical symptoms or proven at the genus level but do not present proof of the species. This probably occurs for at least two reasons: because some are recently described species (like some *Loxosceles* spiders, and *Tityus* scorpions) and have not been evaluated for their risk to human health yet, and because of the lack of taxonomic identification by the health team providing care. We agree with Isbister and collaborators (2005), and Lopez and Couto (2024) referring to spider bites in Argentina, indicating that it is important to promote the implementation of taxonomy identification services linked to the health system. The health system should improve the recording of accidents, from the admission of the person bitten to the identification of the species of these arachnids.

Although *Latrodectus* weren´t recorded in all the municipalities, these spiders may be more widely distributed, which can be partly associated with their ballonism behavior (Mowery, Lubin and Segoli, 2022). Ballooning is a well-known dispersal mechanism for small spiders, typically in their first instars, allowing them to transport themselves by air currents, kilometers from their take-off point (Foelic, 2010). The genus still causes controversy about which are the species of *Latrodectus* in the *mactans-curacaviensis* complex, and where they are distributed in the Brazilian territory (Souza, 2016). *Loxosceles* are well known for their medical significance and have a widespread global distribution, with 22 species occurring in Brazil (World Spider Catalog, 2024), and

[8] https://www.gov.br/mma/pt-br/assuntos/biodiversidade-e-biomas/areas-protegidas/sistema-nacional-de-unidades-de-conservacao-da-natureza-snuc

Table 1. Distribution of spider species in the Chapada Diamantina National Park, Bahia, Brazil. Highlighted endangered, endemic, and medical (or potentially medical) importance species.

Municipality	Species	Conservation Status (UCN, ICMBio)	Endemic to: Brazil * PARNA-CD **	Medical Importance (*)
Andaraí	*Alpaida canoa*	NE	*	-
	Ctenus igatu	NE	**	-
	Crypsidromus multicuspidatus	NE	*	-
	Lasiodora klugi	NE	*	-
	Phoneutria eickstedtae	NE	*	*
	Plato novalima	NE	*	-
	Sicarius ornatus	NE	*	-
	Scytodes sincora	NE	**	-
	Tmesiphantes hypogeus	CR	**	-
Ibicoara	*Argiope argentata*	NE	-	-
	Corythalia latipes	NE	*	-
	Dolichothele rufonigra	NE	*	-
	Lasiodora klugi	NE	*	-
	Latrodectus geometricus	NE	-	*
	Latrodectus gr. mactans	NE	-	*
	Leprolochus birabeni	NE	-	-
	Meotipa pulcherrima	NE	-	-
	Oxyopes salticus	NE	-	-
	Peucetia flava	NE	-	-
	Pronous tuberculifer	NE	-	-
	Phoneutria nigriventer	NE	-	*
	Smeringopus pallidus	NE	-	-
	Teminius insularis	NE	-	-
	Umuara freddyi	NE	*	-
Itaeté	*Ischnothele annulata*	NE	-	-
	Loxosceles karstica	NE	*	*
	Nesticodes rufipes	NE	-	-
	Oecobius navus	NE	-	-
Lençóis	*Alpaida truncata*	NE	-	-
	Cheiracanthium inclusum	NE	-	-
	Creugas gulosus	NE	-	-
	Ctenus rectipes	NE	-	-
	Dolichothele exilis	NE	*	-
	Idiops rastratus	NE	*	-
	Gasteracantha cancriformis	NE	-	-
	Latrodectus geometricus	NE	-	*
	Loxosceles chapadensis	NE	*	*
	Micrathena fissispina	NE	-	-
	Micrathena plana	NE	-	-
	Misumenops maculissparsus	NE	-	-
	Nesticodes rufipes	NE	-	-
	Oxyopes candidoi	NE	*	-
	Oxyopes salticus	NE	-	-
	Oxyopes stephanurus	NE	*	-
	Peucetia flava	NE	-	-
	Peucetia rubrolineata	NE	-	-
	Plato novalima	NE	*	-
	Quemedice piracuruca	NE	-	-
	Selenops cf zumac	NE	-	-

Table 1. Cont..

Municipality	Species	Conservation Status (UCN, ICMBio)	Endemic to: Brazil * PARNA-CD **	Medical Importance (*)
	Scytodes globula	NE	-	-
	Thwaitesia affinis	NE	-	-
	Tidarren cf haemorrhoidale	NE	-	-
	Trachelopachys aemulatus	NE	-	-
	Trachelopachys af sericeus	NE	-	-
	Vectius niger	NE	-	-
	Wagneriana cf taim	NE	-	-
Mucugê	*Latrodectus geometricus*	NE	-	*
	Phoneutria eickstedtae	NE	*	*
	Polybetes germaini	NE	-	-
Palmeiras	*Argiope argentata*	NE	-	-
	Ctenus ornatus	NE	*	-
	Ctenus rectipes	NE	-	-
	Gasteracantha cancriformis	NE	-	-
	Iridopelma katiae	DD	*	-
	Latrodectus geometricus	NE	-	-
	Loxosceles chapadensis	NE	*	*
	Loxosceles similis	NE	*	*
	Phoneutria eickstedtae	NE*	*	
	Phoneutria nigriventer	NE	-	*
	Vectius niger	NE	-	-

Note: NE= not evaluated; NT= Near Threatened; DD=Data Deficient (IUCN). (*) according to the genera established by the Brazilian Ministry of Health (MS, 2001).

eight in Bahia: *L. amazonica* Gertsch, 1967*, L. boqueirao* Bertani and Gallão, 2024*, L. cardosoi* Bertani, von Schimonsky and Gallão, 2018*, L. carinhanha* Bertani, von Schimonsky and Gallão, 2018*, L. chapadensis, L. karstica, L. similis*, and *L. troglobia* Souza and Ferreira, 2018 (Andrade-de-Sá, Brazil, Lira-da-Silva and Brescovit, 2024). *Phoneutria* is considered a very defensive medically important spider (Foelix, 2010), but as mentioned, the accidents reported in the PARNA-CD municipalities aren't associated with any species yet (DATASUS-TABNET, 2024).

Of the 56 spider species, 12 of them were found in caves. Caves are unique environments: extremely stable, with high humidity, constant temperatures and absence of light, which favor the colonization and persistence of cave-dwelling spiders if there is sufficient food (Ferreira, Prous, Machado and Martins, 2005). Subterranean ecosystems are among the most widespread environments on Earth and we still have poor knowledge of their biodiversity. As these ecosystems have traditionally been overlooked in global conservation agendas and multilateral agreements, a quantitative assessment of solution-based approaches to safeguard subterranean biota and associated habitats is timely (Mammola et al., 2022). As we can see, cave-dwelling arachnids should be one of the priorities if we discuss conservation.

Unfortunately, for most of the spiders, the data were insufficient to be evaluated by the IUCN (Table 1). Between the two evaluated species, *Tmesiphantes hypogeus* is a CR, endemic to Brazil and PARNA-CD, known from only two caves in Igatu (Andaraí), with an estimated occurrence of less than 10 km². As the caves may form a single system, they can be considered in a single location, further restricting its occurrence and increasing the importance of studying this species. For *Iridopelma katiae* the data is deficient (DD).

Of the 30 scorpions already recorded in Bahia, seven are endemic: *Ananteris evellynae* Lourenço, 2004*, A. kuryi* Giupponi, Vasconcelos and Lourenço, 2009*, Troglorhopalurus lacrau, T.translucidus, Tityus cylindricus* (Karsch, 1879)*, T.kuryi,* and *T. aba* (Porto et al., 2010a). The endemism of these species may be related to the lack of knowledge about their distribution, as in the case of *Ananteris evellynae, A. kuryi,* and *Tityus cylindricus*, but it may also reflect the occurrence in certain specific habitats, especially the cave ones as,

Table 2. Distribution of scorpion species in the Chapada Diamantina National Park, Bahia, Brazil. Highlighted endemic, endangered, and medical (or potentially medical) importance species.

Municipality	Species	Conservation Status (IUCN, ICMBio)	Endemic to: Brazil * PARNA-CD **	Medical Importance (*)
Andaraí	*Tityus kuryi*	NE	*	*
	Tityus serrulatus	NE	-	*
Ibicoara	*Tityus kuryi*	NE	*	*
	Tityus serrulatus	NE	-	*
Itaeté	*Tityus serrulatus*	NE	-	*
	Troglorhopalurus lacrau	EN	*	-
Lençóis	*Bothriurus asper*	NE	-	-
	Bothriurus rochai	NE	-	-
	Tityus martinpaechi	NE	*	*
	Tityus neglectus	NE	-	*
	Tityus serrulatus	NE	-	*
	Troglorhopalurus translucidus	EN	*	-
Mucugê	*Ananteris balzanii*	NE	-	-
	Bothriurus asper	NE	-	-
	Bothriurus rochai	NE	-	-
	Tityus aba	NE	*	*
	Tityus serrulatus	NE	-	*
Palmeiras	*Bothriurus asper*	NE	-	-
	Tityus kuryi	NE	*	*
	Tityus serrulatus	NE	-	*

Note: NE= not evaluated; EN= Endangered (IUCN). (*) according to the genera established by the Brazilian Ministry of Health (MS, 2001).

Table 3. Distribution of amblypygids and pseudoscorpions species in the Chapada Diamantina National Park, Brazil. Highlighted endemic and endangered species.

Municipality	Species	Conservation Status (IUCN, ICMBio)	Endemic to: Brazil * PARNA-CD **
Ibicoara	-	-	-
Itaeté	*Spelaeochernes bahiensis*	NE	**
Lençóis	-	NE	-
Mucugê	*Trichodamon princeps*	NE	*
Palmeiras	*Spelaeobochica allodentatus*	NE	**

Note: NE = not evaluated (IUCN).

Troglorhopalurus lacrau and *T. translucidus* (Porto et al., 2010a). Troglobite scorpions are rare, even those found inside caves, like some Buthidae species. They are considered trogloxenes, occurring inside and outside caves, and do not present defined troglophilic characters (Lourenço et al., 2004).

We found the registration of 10 scorpion species: *Ananteris balzanii* Thorell, 1891, *Bothriurus asper* Pocock, 1893*, B. rochai* Mello-Leitao, 1932, *Tityus aba, T. kuryi, T. neglectus, T. martinpaechi, T. serrulatus, Troglorhopalurus lacrau,* and *T. translucidus* (APPENDIX B, Table 2). Three of these are of recognized large distribution and probably occur in all regions, like *Bothriurus asper, B. rochai,* and the buthid *T. serrulatus. Tityus serrulatus* was registered in all of the six municipalities (Table 2) and is exactly the most important scorpion species regarding public health in Bahia (Brazil, Lira-da-Silva, Porto, Amorim

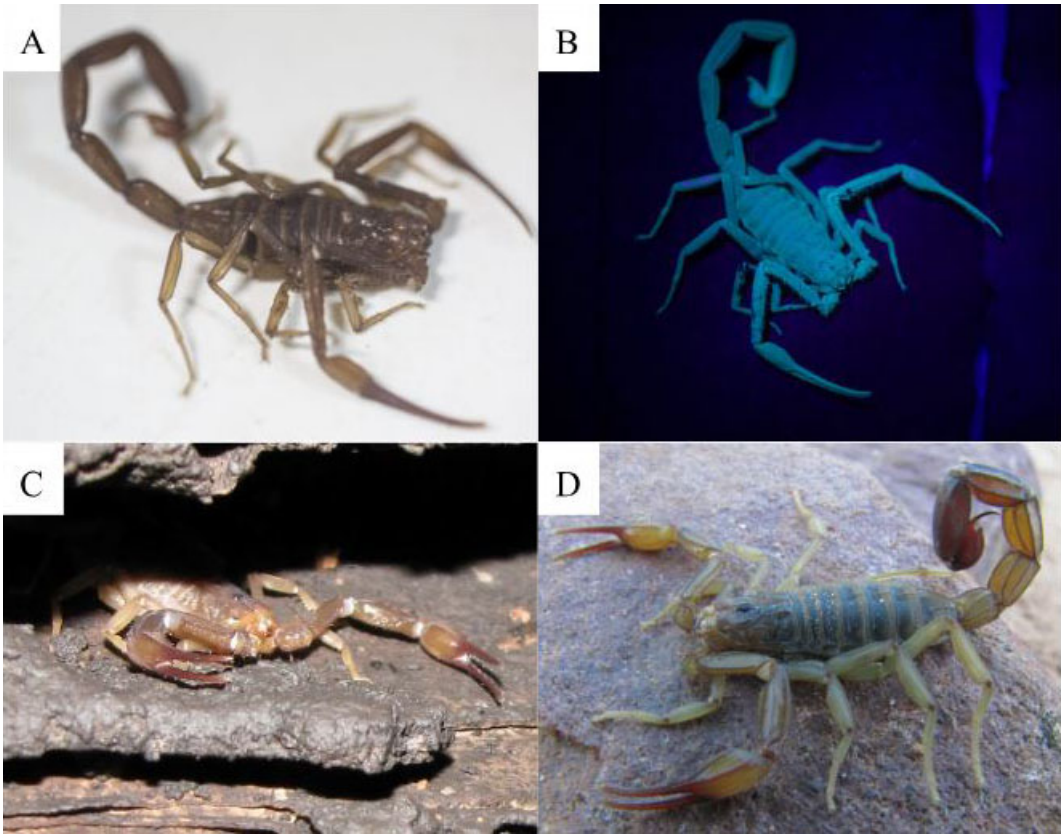

Fig. 2. Scorpions of conservation importance from the Chapada Diamantina National Park and surroundings. A, B: *Troglorhopalurus translucidus*. C, D: *Troglorhopalurus lacrau*. Photographs: Salete Maso (A, B-taken under ultraviolet light), Tiago Jordão Porto (C, D).

and Silva, 2009), which is worrying to the people of this region. It is considered the most dangerous species in South America, due to its high accident incidence and severity, which can lead patients to death due to its poison toxicity (Pucca et al., 2014; Cupo, 2015). It is a synanthropic animal, with high proliferation rates and colonization in urban environments (Lourenço and Eickstedt, 2009) mainly due to its parthenogenetic reproduction (Mathiessen, 1962). Three other buthids registered here (*Tityus aba, T. kuryi,* and *T. martinpaechi*) are of the same phylogenetic complex as *T. serrulatus* (known as *Tityus stigmurus* complex) (Souza, Candido, Lucas and Brescovit, 2009; Pereira, 2015). However, there is no record of accidents involving these species, except for *T. martinpaechi* in the Salvador Metropolitan Region (Porto, Caldas, Cova and Santo, 2010b). As we said previously, this does not mean that they cannot be involved in poisoning accidents, as the healthcare team notifies the diagnosis based only on clinical symptoms or those proven at the gender level. Therefore, there is no way to evaluate these species from a medical-epidemiological point of view. *Tityus kuryi* (Fig. 4A) and *T. aba* (Fig. 4E) are endemic to Bahia and occur preferentially in the Caatinga biome (Porto et al., 2010a). *Tityus kuryi* was restricted to three municipalities (Andaraí, Ibicoara, Palmeiras) and *T. aba* had a single register in Mucugê, inside a house (APPENDIX B). Both scorpions have very little information since their description in 1997 and 2005, respectively. It is almost an unknown species until now and should be included under the "vulnerable" category of the IUCN, as Porto et al. (2010a) reported. Different from the previous species, *Tityus martinpaechi* (Fig. 4B) is not endemic to Bahia, and was only found in the Lençóis municipality (APPENDIX B). This scorpion also occurs in Ceará and Paraíba states and occupies the Caatinga and the Atlantic Forest (Souza et al., 2009; Porto et al, 2010a). As *T. martinpaechi, T. neglectus* (Fig. 4C) is not endemic from Bahia, and had a single record in Lençóis. This species has been restricted to semi-arid coastal restinga and tabuleiro woodland (Santos, Araújo, Almeida and Coelho, 2006) occurring in Bahia, Pernambuco, Rio Grande do Norte and Sergipe. They are frequently found in terrestrial bromeliads, widespread plants in the Chapada Diamantina ecoregion (Versieux, Wendt, Louzada and Wanderley, 2008), close to the base of the leaves (Lourenço and

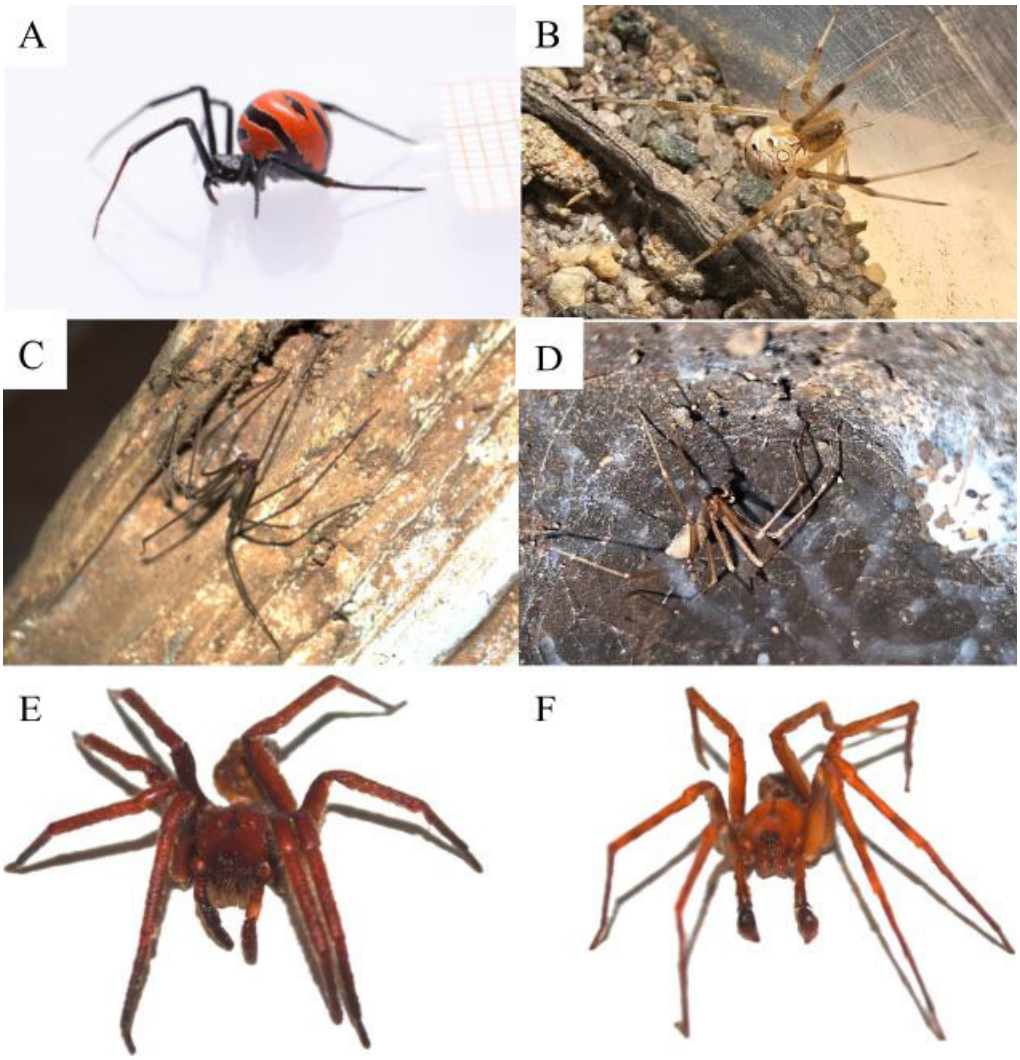

Fig. 3. Spiders of medical (or potentially medical) importance from the Chapada Diamantina National Park and surroundings. A: *Latrodectus gr. mactans*. B: *Latrodectus geometricus*. C: *Loxosceles chapadensis*. D: *Loxosceles karstica*. E: *Phoneutria nigriventer*. F: *Phoneutria eickstedtae* (E, F, from MHNBA collection). Photographs: Rafael Martins (A, B), Júlia Andrade-de-Sá (C, D, E, F).

Eickstedt, 1988, Lira and De Souza, 2014). In addition, we cannot forget that some opportunistic species, like *T. serrulatus* (Fig. 4D), could even benefit from a moderate degree of anthropogenic actions (Carmo, Amorim and Vasconcelos, 2013) which could become a serious public health problem for the people of those municipalities.

Concerning the non-medically important species, but the endemic ones, *Troglorhopalurus* is an endemic genus to northeastern Brazil and was considered a monotypic genus (*T. translucidus)* until Esposito, Yamaguti, Souza, Pinto-da-Rocha and Prendini, (2017) included another species, *Troglorhopalurus lacrau* (=*Rhopalurus lacrau*) (Fig. 3C, D). Both species belong to the same subterranean formation (Esposito et al., 2017) and are considered endangered (EN) according to the last revision of the Brazilian National Red List (ICMBio, 2018). *T. translucidus* is probably restricted to the central-north sandstone caves located above 500 m in Andaraí and Lençóis municipalities (Fig. 3A, B) (Gallão and Bichuette, 2016). *T. lacrau* is known only from two populations: in the state of Bahia, where they live under stones inside limestone caves in the PARNA-CD (Fig. 3C, D), and in the Chapada do Araripe, state of Ceará (Esposito et al., 2017). Beyond the obvious importance of being endemic and endangered, Gallão and Bichuette (2016) stand out two other conditions that change the way we look for these two species: the fact they are inside or outside the Chapada Diamantina National Park. If they are

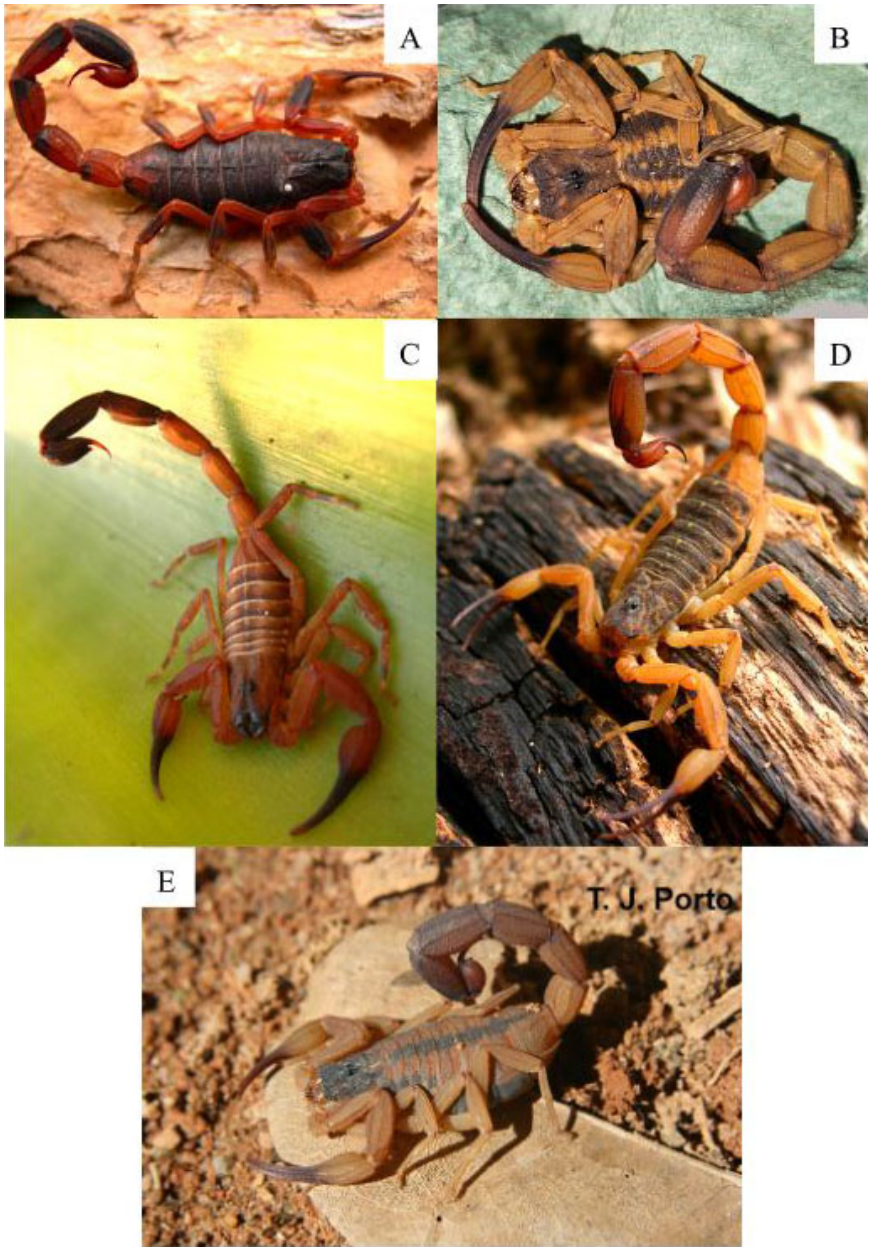

Fig. 4. Scorpions of medical (and potentially medical) importance from the Chapada Diamantina National Park and surroundings. A: *Tityus kuryi.* B: *T. martinpaechi*. C: *T. neglectus*. D: *T. serrulatus*. E: *T. aba*. Photographs: Tiago Jordão Porto (A, C, D, E), Rejâne Maria Lira-da-Silva (B).

inside, they are to some extent, protected. But if they are outside, they are unprotected and can only count on the local population to protect them, and without support from environmental agencies. This increases the urgency of studies on species like these, as they have a major risk of extinction.

Trichodamon princeps (= *T.froesi*) was the only amblypygid species registered in the PARNA-CD, in Mucugê (APPENDIX C, Table 3). Although the species record in Harvey's catalog (Harvey, 2003) still maintains *T. froesi*, a morphological and phylogenetic review of the genus showed high variability between the two unique species, indicating their synonymization (De Miranda, Kury and Giupponi, 2018).

The knowledge of the cave-dwelling pseudoscorpions from Brazil was summarized by Mahnert (2001), who recorded 25 species in seven families from about 100 caves, including the genus *Spelaeobochica* and the type species *S.allodentatus* Mahnert 2001 from Bahia (Ratton, Volker and Rodrigo, 2012). There is no information on the register numbers of the holotype and paratype in its description

(Mahnert, 2001). Although there are such number of species recorded in the state, only two can be reported for the PARNA-CD: *Spelaeobochica allodentatus* (Impossível cave, Palmeiras), *Spelaeochernes bahiensis* (Poço Encantado and Lapa do Bode caves, Itaeté) (Mahnert, 2001; Harvey, 2013a). As they have no records anywhere other than those in their description (Mahnert, 2001), we can consider them endemic to PARNA-CD.

Among the Solifugae, only one species has been recorded in Bahia, located in the Caatinga biome from the dunes of São Francisco River, but far from the Chapada Diamantina National Park. For Uropygi, just one species was recorded in the state, restricted to the Atlantic Forest region. For Opiliones, according to Kury's Laniatores Catalog (Kury, 2003), 32 species are present in Bahia, mostly in the Atlantic Forest, but none have been registered within the PARNA-CD. No occurrences of Palpigradi, Ricinulei, or Schizomida are recorded in Bahia.

Final considerations

Here, we provide a valuable basis for the diversity of extant arachnids in Chapada Diamantina National Park, which can be used for future assessments of habitat transformation, invasive alien species, and health human prevention. We know that knowledge of this arachnid biodiversity does not end here. We also know the difficulties of bringing registration data to a region so far from the few centers that train researchers, such as the Brazilian northeast region. As noted by Oliveira et al. (2017), the areas with the greatest concentration of species records in our country are generally located around the economically richest and most populous cities, near the coast. Not by chance these are also among the areas of initial colonization in the country, where the oldest and most representative collections and Museums are located, like in the cities of Rio de Janeiro, and São Paulo ("museum effect"). Consequently, we reinforce here the need for effective financial incentives for biodiversity research projects directed to PARNA-CD or the Chapada Diamantina ecoregion. Furthermore, in the medium or long term, it is necessary to invest in training arachnological researchers in less favored regions or far from the large research centers in the Brazilian Southeast region. There is no shortage of justifications for implementing measures aimed at preserving this mountainous complex, as UNESCO already states for a region considered a Biosphere Reserve. We can also add and reinforce the proposal of Gallão and Bichuette (2015), that the sandstone complex caves from Chapada Diamantina National Park need to be classified as being of high subterranean biodiversity in a global scope.

What promotes ecological damages to these arachnids (or even others) species that inhabit the Chapada Diamantina region is already known: deforestation of the surrounding areas for pastures, lowering the water table due to agricultural irrigation, uncontrolled tourist visitation, and limestone mining (Juncá, Funch and Rocha, 2005), mainly on cave species.

Missing data on species distribution and their threatened status make it difficult to promote mitigating actions toward their conservation, and eventual decisions about biodiversity conservation (Porto et al., 2010a). We also agree with Carmo et al. (2013) that local species are experiencing a major risk of extinction. Still, given the rate of human-mediated changes to which several caatinga areas have been recently exposed, endemic species should be the priority target for long-term ecological and behavioral studies (Carmo et al., 2023).

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APPENDIX A
Spider list of the Chapada Diamantina National Park, Brazil. Occurrence by Municipality.

Taxon	English name	Occurrence			Register in scientific collection (*)					Phytophisiognomy/ Environment
		municipality	locality	coordinates: Longitude, Latitude	UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	
MIGALOMORPHAE										
ACTINOPODIDAE										
Actinopus	mouse spiders	Itaeté	Poço Encantado's Cave	41W 06' 20", 12S 06' 40"	-	-	-	11539	-	Cave (BA-202)
Actinopus	mouse spiders	Andaraí	Indeterminate	41W 19' 53", 12S 48' 27"	-	-	167542	-	-	Indeterminate
DIPLURIDAE										
Diplura	funnelweb spider	Andaraí	Fazenda do Ouro Pousada Ecológica	41W 19' 53" 12S 48' 27"	-	-	-	4473	-	Indeterminate
Trechona	funnelweb spider	Palmeiras	Trilha Águas Claras	41W 33' 31", 12S 31' 44"	-	-	-	6997	-	Indeterminate
IDIOPIDAE										
Idiops rastratus O. Pickard-Cambridge, 1889	trapdoor spider	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	13024	-	Indeterminate
ISCHNOTHELIDAE										
Ischnothele annulata Tullgren, 1905	funnelweb spider	Itaeté	Indeterminate	40W 58' 20", 12S 59' 12"	-	-	113146	-	-	Urban
PYCNOTHELIDAE										
Rachias	trapdoor spider	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213640	-	-	Rupestrian grasslands
Stenoterommata	trapdoor spider	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213647	-	-	Rupestrian grasslands

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Taxon	English name	Occurrence			Register in scientific collection (*)					Phytophisiognomy/ Environment
		municipality	locality	coordinates: Longitude, Latitude	UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	
THERAPHOSIDAE										
Crypsidromus multicuspidatus Mello-Leitão, 1929	tarantula	Andaraí	Indeterminate	41W 19' 53", 12S 48' 27"	-	-	167540	-	-	Indeterminate
Dolichothele exilis Mello-Leitão, 1923	tarantula	Lençóis	Lapão's Cave mouth	41W 23' 22", 12S 33' 48"	-	-	124099	-	-	Cave (BA-41)
Dolichothele rufonigra Guadanucci, 2007	tarantula	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213708	-	-	Rupestrian grasslands
Iridopelma katiae Bertani, 2012	tarantula	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	3856	-	-	-	-	Indeterminate
Lasiodora	tarantula	Itaeté	Indeterminate	40W 58' 20", 12S 59' 12"	-	-	-	5061	-	Indeterminate
Lasiodora	tarantula	Itaeté	Indeterminate	40W 58' 20", 12S 59' 12"	-	-	111071	-	-	Urban
Lasiodora klugi C. L. Koch, 1841	tarantula	Andaraí	Xique-xique do Igatú	41W 19' 10", 12S 53' 44"	4320	-	-	-	-	Rupestrian grasslands
Lasiodora klugi C. L. Koch, 1841	tarantula	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1430	-	-	-	-	Indeterminate
Pterinopelma	tarantula	Andaraí	Igatú	41W 19' 10", 12S 53' 44"	-	-	-	5060	-	Indeterminate
Tmesiphantes	tarantula	Andaraí	Rodovia BA-142, Rio Paraguaçu's right margin	41W 19' 53" 12S 48' 27"	-	-	-	16021	-	Indeterminate
Tmesiphantes	tarantula	Andaraí	Igatú	41W 19' 10", 12S 53' 44"	-	-	-	16022	-	Indeterminate
Tmesiphantes hypogeus Bertani Bichuette & Pedroso, 2013	tarantula	Andaraí	Igatú, Parede Vermelha Cave	41W 19' 10", 12S 53' 44"	-	-	264841	4419, 4357	-	Cave (BA-1624)

APPENDIX A - Cont.

Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
ARANEOMORPHA										
EANAPIDAE										
Pseudanapis	anapid spiders	Andaraí	Igatú, Rio dos Pombos Cave	41W 19' 10", 12S 53' 44"	-	-	182470	-	-	Cave
ARANEIDAE										
Acacesia	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2089, 1323	Indeterminate
Alpaida	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15857	-	-	Indeterminate
Alpaida canoa Levi, 1988	orbweavers	Andaraí	Igatú, Canal da Fumaça Cave	41W 19' 10", 12S 53' 44"	-	-	182477	-	-	Cave (BA-1630)
Alpaida truncata Keyserling, 1865	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	395	Indeterminate
Argiope	garden orbweavers	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1433	-	-	-	-	Indeterminate
Argiope	garden orbweavers	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	953	-	-	-	-	Cave (BA-41)
Argiope argentata Fabricius, 1775	silver garden spider	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	4636	-	-	-	-	Indeterminate
Argiope argentata Fabricius, 1775	silver garden spider	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	5004	-	-	-	-	Indeterminate
Eriophora	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2477I	ndeterminate
Eustala	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1492, 1493, 2098	Indeterminate
Gasteracantha	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-		1271	Indeterminate

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
Gasteracantha cancriformis Linnaeus, 1758	spinybacked orbweaver	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	1580	-	-	-	-	Indeterminate
Gasteracantha cancriformis Linnaeus, 1758	spinybacked orbweaver	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	5005	-	-	-	-	Indeterminate
Spilasma	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2220	Indeterminate
Parawixia	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1563, 1801	Indeterminate
Parawixia	orbweavers	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	-	-	1800	Cave (BA-41)
Pronous tuberculifer Keyserling, 1881	orbweavers	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213719	-	-	Rupestrian grasslands
Mangora	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1262, 1754	Indeterminate
Metazygia	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1260, 1661, 1695, 1696	Indeterminate
Micrathena fissispina C. L. Koch, 1836	orbweavers	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	162300	-	-	Cave (BA-41)
Micrathena plana C. L. Koch, 1836	orbweavers	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	11030	162298, 162299	-	-	Cave (BA-41)
Wagneriana	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	1721, 2217	-	-	-	Indeterminate
Wagneriana cff. taim	orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1723	Indeterminate
ANYPHAENIDAE										
Aysha	ghost spiders	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	-	-	221464	-	-	Indeterminate

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Taxon	English name	Occurrence			Register in scientific collection (*)					Phytophisiognomy/ Environment
		municipality	locality	coordinates: Longitude, Latitude	UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	
Hibana	ghost spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213753	-	-	Rupestrian grasslands
Umuara freddyi Oliveira & Brescovit, 2015	ghost spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213744	-	-	Rupestrian grasslands
Teudis	ghost spiders	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	-	-	221475	-	-	Indeterminate
CHEIRACANTHIDAE										
*Cheiracanthium inclusum*spider Hentz, 1847	agrarian sac	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	1079	-	-	-	-	Indeterminate
CAPONIIDAE										
*Nops*caponii	spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213877, 213660	-	-	Rupestrian grasslands
CORINNIDAE										
Corinna	antmimic spiders	Palmeiras	Caeté-Açú	41W 29' 36", 12S 37' 10"	-	-	279801	-	-	Urban
Corinna	antmimic spiders	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1495, 1496	-	-	-	-	Indeterminate
Corinna	antmimic spiders	Mucugê	Indeterminate	41W 22' 15", 13S 00' 19"	42, 45, 5391	-	-	-	-	Indeterminate
Creugas	antmimic spiders	Andaraí	Indeterminate	41W 19' 53", 12S 48' 27"	-	-	182461	-	-	Indeterminate
Creugas gulosus Thorell, 1878	antmimic spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15853	-	-	Indeterminate
CTENIDAE										
Ancylometes	wandering spider	Palmeiras	Camping do Sr. Daí, Caeté-Açú	41W 29' 36", 12S 37' 10"	2491	-	-	-	-	Urban

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
Ctenus	wandering spider	Andaraí	Igatú Canal da Fumaça Cave	41W 19' 10", 12S 53' 44"	-	-	182487	-	-	Cave (BA-1630)
Ctenus igatu Polotow Cizauskas & Brescovit, 2022	wandering spider	Andaraí	Igatú Canal da Fumaça Cave	41W 19' 10", 12S 53' 44"	-	-	189131, 189132	-	-	Cave (BA-1630)
Ctenus rectipes F. O. Pickard-Cambridge, 1897	wandering spider	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	3628	-	-	-	-	Indeterminate
Ctenus rectipes F. O. Pickard-Cambridge, 1897	wandering spider	Palmeiras	Vale do Capão, Caete-Açú	41W 29' 36", 12S 37' 10"	4694	-	-	-	-	Urban
Ctenus ornatus	wandering spider	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	2675	-	-	-	-	Indeterminate
Isoctenus Keyserling, 1877	wandering spider	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15856	-	-	Indeterminate
Nothroctenus	wandering spider	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213727	-	-	Rupestrian grasslands
Nothroctenus	wandering spider	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15860	-	-	Indeterminate
Phoneutria	brazilian wandering spiders	Palmeiras	Vale do Capão, Caeté-Açú	41W 29' 36", 12S 37' 10"	4731	-	-	-	-	Urban
Phoneutria	brazilian wandering spiders	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	5606	-	-	-	-	Cave (BA-41)
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Andaraí	Vale do Paty	12°47'55.2"S, 41°19'24.8"W	2391	-	-	-	-	Rupestrian grasslands
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Mucugê	Sede do Projeto SempreViva	41W 22' 15", 13S 00' 19"	4342	-	-	-	-	Rupestrian grasslands

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Palmeiras	Vale do Capão, Caete-Açú	41W 29' 36", 12S 37' 10"	2526, 2527	-	-	-	-	Urban
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Mucugê	Indeterminate	41W 22' 15", 13S 00' 19"	2655	-	-	-	-	Indeterminate
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Mucugê	Estrada da Guiné	41W 22' 15", 13S 00' 19"	4956	-	-	-	-	Road
Phoneutria eickstedtae Martins & Bertani, 2007	brazilian wandering spiders	Palmeiras	Campping do Sr. Daí, Caeté-Açú	41W 29' 36", 12S 37' 10"	2490	-	-	-	-	Urban
Phoneutria nigriventer Keyserling, 1891	brazilian wandering spiders	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1461	-	-	-	-	Indeterminate
Phoneutria nigriventer Keyserling, 1891	brazilian wandering spiders	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	4336	-	-	-	-	Indeterminate
GNAPHOSIDAE										
Eilica	stealthy ground spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213716	-	-	Rupestrian grasslands
LINYPHIIDAE										
Agyneta	sheetweb and dwarf weavers	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213717	-	-	Rupestrian grasslands
LYCOSIDAE										
Aglaoctenus	wolf spiders	Lençóis	Indeterminated	41W 23' 23", 12S 33' 48"	-	-	-	-	1163, 2513, 2515, 2519, 2520, 2522	Indeterminate
Pavocosa	wolf spiders	Ibicoara	Espalhado	41W 09' 22",	-	-	213669	-	-	Rupestrian

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
			Municipal Natural Park	13S 19' 08"						grasslands
Trochosa	wolf spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213752	-	-	Rupestrian grasslands
MITURGIDAE										
Teminius insularis Lucas, 1857	prowling spiders	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1478, 1507	-	-	-	-	Indeterminate
OONOPIDAE										
Neotrops	dwarf sixeye spider	Andaraí	Igatú Canal da Fumaça Cave	41W 19' 10", 12S 53' 44"	-	-	182470	-	-	Cave (BA-1630)
Neotrops	dwarf sixeyed spider	Mucugê	RPPN Adília Paraguaçu Batista	41W 22' 15", 13S 00' 19"	-	-	56554	-	-	Indeterminate
Neotrops	dwarf sixeyed spider	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	296965	-	-	Cave (BA-41)
Neoxyphinus	dwarf sixeyed spider	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213730, 213740	-	-	Rupestrian grasslands
OECOBIIDAE										
Oecobius navus Blackwall, 1859	flatmesh weavers	Itaeté	Lapa do Bode Cave	40W 58' 20", 12S 59' 12"	-	-	71839	-	-	Cave (BA-34)
OXYOPIDAE										
Hamataliwa	lynx spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213748	-	-	Rupestrian grasslands
Oxyopes candidoi Garcia-Neto, 1995	lynx spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	269930	-	-	Indeterminate
Oxyopes salticus Hentz, 1845	striped lynx spider	Ibicoara	Parque Natural Municipal do Espalhado	41W 09' 22", 13S 19' 08"	-	-	213715	-	-	Rupestrian grasslands

APPENDIX A - Cont.

Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
Oxyopes salticus Hentz, 1845	striped lynx spider	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	167678	-	-	Indeterminate
Oxyopes stephanurus Mello-Leitão, 1929	lynx spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	269929	-	-	Indeterminate
Peucetia flava Keyserling, 1877	lynx spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213718	-	-	Rupestrian grasslands
Peucetia flava Keyserling, 1877	lynx spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15858	-	Indeterminate	
Peucetia rubrolineata Keyserling, 1877	lynx spiders	Lençóis	400m to Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	128001	-	-	Cave (BA-41)
Tapinillus	lynx spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	269928	-	1221, 1222, 1223, 2596, 2628	Indeterminate
OCHYROCERATIDAE										
Ochyrocera	ochyroceratid spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213726	-	-	Rupestrian grasslands
Theotima	ochyroceratid spiders	Andaraí	Igatú Lava Pé Cave	41W 19' 10", 12S 53' 44"	-	-	182473	-	-	Cave
PALPIMANIDAE										
Fernandezina	palpimanid spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213664	-	-	Rupestrian grasslands
Otiothops	palpimanid spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213663	-	-	Rupestrian grasslands
PHOLCIDAE										
Mesabolivar	cellar spiders	Andaraí	Igatú, Rio dos Pombos Cave	41W 19' 10", 12S 53' 44"	-	-	182491	-	-	Cave

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
Smeringopus pallidus Blackwall, 1858	cellar spiders	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1464	-	-	-	-	Indeterminate
SALTICIDAE										
Aillutticus	Jumping spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213713	-	-	Rupestrian grasslands
Corythalia	Jumping spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213665, 213650	-	-	Rupestrian grasslands
Corythalia latipes C. L. Koch, 1846	Jumping spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213750	-	-	Rupestrian grasslands
Nosferattus	Jumping spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213637	-	-	Rupestrian grasslands
Scopocira	Jumping spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213731	-	-	Rupestrian grasslands
SELENOPIDAE										
Selenops	selenopid crab spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	4551	-	-	-	-	Indeterminate
Selenops cf. zumac Corronca, 1996	selenopid crab spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-		2031	Indeterminate
SICARIIDAE										
Loxosceles	recluse spiders	Palmeiras	Riachinho Cave	41W 33' 31", 12S 31' 44"	4781	-	-	-	-	Cave (BA 198)
Loxosceles	recluse spiders	Ibicoara	Indeterminate Cave	41W 17' 04", 13S 24' 39"	-	-	-	-	-	Indeterminate
Loxosceles chapadensis Bertani,	recluse spiders	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	4375-4377, 4379, 4380, 4384-4392,	12103, 12105	165648, 165649,	6238	-	Cave (BA-41)

APPENDIX A - Cont.

Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
Fukushima & Nagahama 2010					4396, 4397, 4399, 4400, 4402- 4407, 4409-4411, 4414, 4415, 4418-4420, 4506, 4507, 4545, 4760, 4764, 3564, 3565, 3612, 3615, 3628, 3664, 4168, 4169, 4373,4374, 4378, 4381, 4382, 4393-4395, 4398, 4401, 4408, 4412, 4413, 4416, 4417, 4421, 4422, 4503, 4562, 4754, 4755, 4757, 4759, 4761, 4763, 4766-4768, 4772, 4776, 4823, 4900, 5444-5475, 5488, 5558, 5559, 5561-5567, 5569, 5571, 5572, 5597-5599, 5603-5605, 5607, 5608, 5629, 5631		165650, 165651, 165652, 165653, 165654			
Loxosceles chapadensis Bertani, Fukushima & Nagahama 2010	recluse spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	6049	-	Indeterminate
Loxosceles chapadensis Bertani, Fukushima & Nagahama 2010	recluse spiders	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	-	-	-	6047 (Holótipo) 6048 (Parátipo)	-	Indeterminate
Loxosceles chapadensis	recluse spiders	Lençóis	Serra das Paridas	41W 14' 33", 12S 14' 44"	5648	-	-	-	-	Rupestrian grasslands

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
Bertani, Fukushima & Nagahama 2010										
Loxosceles chapadensis Bertani, Fukushima & Nagahama 2010	recluse spiders	Palmeiras	Riachinho Cave	41W 33' 31", 12S 31' 44"	4491, 4779, 4780	-	-	-	-	Cave (BA 198)
Loxosceles karstica Bertani, von Schimonsky & Gallão, 2018	recluse spiders	Itaeté	Lapa do Bode Cave	40W 58' 20", 12S 59' 12"	5635, 5638, 5640, 5649	-	-	-	-	Cave (BA-34)
Loxosceles similis Moenkhaus, 1898	recluse spiders	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	-	-	165464	-	-	Indeterminate
Sicarius	sand recluse spiders	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	4901	-	-	-	-	Indeterminate
Sicarius	sand recluse spiders	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	-	6264	-	Cave (BA-41)
Sicarius	sand recluse spiders	Itaeté	near Natal Cave, Fazenda Rio Alegre	40W 58' 20", 12S 59' 12"	-	-	-	6261	-	Cave
Sicarius ornatus Magalhães, Brescovit & Santos, 2013	sand recluse spiders	Andaraí	Igatú	41W 19' 10", 12S 53' 44"	-	-	-	6355	-	Indeterminate
SCYTODIDAE										
Scytodes	spitting spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1416, 1417, 1418, 1419	Indeterminate
Scytodes globula Nicolet, 1849	spitting spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	39556	-	-	Indeterminate
Scytodes sincora Rheims & Brescovit, 2009	spitting spiders	Andaraí	Igatú Caverna Lava Pé	41W 19' 10", 12S 53' 44"	-	-	182460	-	-	Cave
SPARASSIDAE										

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
Olios	giant crab spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2021	Indeterminate
Polybetes germaini Simon, 1897	giant crab spiders	Mucugê	Indeterminate	41W 22' 15", 13S 00' 19"	5630	-	-	-	-	Indeterminate
Quemedice piracuruca Rheims, Labarque & Ramírez, 2008	giant crab spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15849	-	-	Indeterminate
Stasina	giant crab spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213636	-	-	Rupestrian grasslands
THOMISIDAE										
Misumenops	crab spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213736	-	-	Rupestrian grasslands
Misumenops maculissparsus Keyserling, 1891	crab spiders	Lençóis	Morro do Pai Inácio	41W 23' 23", 12S 33' 48"	-	-	26843	-	-	Rupestrian grasslands
TRACHELIDAE										
Trachelopachys aemulatus Gertsch, 1942	sac spiders	Lençóis	Morro do Pai Inácio	41W 23' 23", 12S 33' 48"	-	-	6841	-	-	Rupestrian grasslands
Trachelopachys aff. sericeus Simon, 1886	sac spiders	Lençóis	Morro do Pai Inácio	41W 23' 23", 12S 33' 48"	-	-	26840	-	-	Rupestrian grasslands
THERIDIIDAE										
Anelosimu	scobweb weavers	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213734	-	-	Rupestrian grasslands
Anelosimus	cobweb weavers	Mucugê	Indeterminate	41W 22' 15", 13S 00' 19"	-	-	124744	-	-	Indeterminate
Dipoena	cobweb weavers	Ibicoara	Espalhado	41W 09' 22",	-	-	213721	-	-	Rupestrian

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	Register in scientific collection (*): UFMG-ARA	Register in scientific collection (*): IBSP	Register in scientific collection (*): MNRJ	Register in scientific collection (*): UBTU	Phytophisiognomy/ Environment
			Municipal Natural Park	13S 19' 08"						grasslands
Euryopis	cobweb weavers	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213649	-	-	Rupestrian grasslands
Latrodectus geometricus C. L. Koch, 1841	brown widow	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213711	-	-	Rupestrian grasslands
Latrodectus geometricus C. L. Koch, 1841	brown widow	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15852	-	2044	Indeterminate
Latrodectus geometricus C. L. Koch, 1841	brown widow	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	3618	-	-	-	-	Indeterminate
Latrodectus geometricus C. L. Koch, 1841	brown widow	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1470, 1472, 1473	-	-	-	-	Indeterminate
Latrodectus g eometricus C. L. Koch, 1841	brown widow	Mucugê	Serra dos Gerais	41W 22' 15", 13S 00' 19"	2439	-	-	-	-	Rupestrian grasslands
Latrodectus gr. mactans	black widow	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1471	-	-	-	-	Indeterminate
Meotipa pulcherrima Mello-Leitão, 1917	cobweb weavers	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213733	-	-	Rupestrian grasslands
Nesticodes Lucas, 1846	rufipes cobweb weavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	15854	-	-	Indeterminate
Nesticodes rufipes Lucas, 1846	cobweb weavers	Itaeté	Indeterminate	40W 58' 20", 12S 59' 12"	-	-	66580	-	-	Urban
Steatoda	cobweb weavers	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	1476	-	-	-	-	Indeterminate
Theridion	cobweb weavers	Andaraí	Igatú,	41W 19' 10",	-	-	189081	-	-	Cave

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Taxon	English name	Occurrence: municipality	Occurrence: locality	Occurrence: coordinates: Longitude, Latitude	Register in scientific collection (*): UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	Phytophisiognomy/ Environment
			Parede Vermelha Cave	12S 53' 44"						
Tidarren cf. haemorrhoidale Bertkau, 1880	cobweb weavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2184, 2185, 2186, 2187, 2192, 2193, 2194	Indeterminate
Thwaitesia affinis O. Pickard-Cambridge, 1882	cobweb weavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	2161	Indeterminate
TROCHANTERIIDAE										
Vectius niger Simon, 1880	ground spiders	Palmeiras	Mata do Vale do Capão	41W 33' 31", 12S 31' 44"	-	-	304761	-	-	Indeterminate
Vectius niger Simon, 1880	ground spiders	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1619	Indeterminate
THERIDIOSOMATIDAE										
Plato novalima Prete, Cizauskas & Brescovit, 2018	ray orbweavers	Andaraí	Igatú, Lava Pé Cave	41W 19' 10", 12S 53' 44"	-	-	182462	-	-	Cave
Plato novalima Prete, Cizauskas & Brescovit, 2018	ray orbweavers	Lençóis	Lapão's Cave	41W 23' 22", 12S 33' 48"	-	-	124101	-	-	Cave (BA-41)
TETRAGNATHIDAE										
Leucauge	longjawed orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1255	Indeterminat
ULOBORIDAE										
Miagrammope	shackled orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1683	Indeterminate
Philoponella	hackled orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	-	-	1173, 1174	Indeterminate
Uloborus	hackled orbweavers	Lençóis	Indeterminate	41W 23' 23", 12S 33' 48"	-	-	38569	-	1526 ,1527	Indeterminate

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Taxon	English name	Occurrence			Register in scientific collection (*)					Phytophisiognomy/ Environment
		municipality	locality	coordinates: Longitude, Latitude	UFBA-ARA	UFMG-ARA	IBSP	MNRJ	UBTU	
ZODARIIDAE										
Epicratinus	zodariid spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213720, 213747	-	-	Rupestria grasslands
Leprolochus birabeni Mello-Leitão, 1942	zodariid spiders	Ibicoara	Espalhado Municipal Natural Park	41W 09' 22", 13S 19' 08"	-	-	213662, 213754	-	-	Rupestria grasslands

(*) = acronymes: UFBA-ARA - Coleção Aracnológica (ordem Araneae) do Museu de História Natural da Bahia, Universidade Federal da Bahia; UFMG-ARA - Coleção de Arachnida das Coleções Taxonômicas da UFMG; IBSP - Laboratório de Coleções Zoológicas, Instituto Butantan; MNRJ - Museu Nacional do Rio de Janeiro; UBTU- Spiders collection (Araneae) from Unesp, São Paulo State University.Caves: code in parenthesis refer to CNC's code (https://sbecnc.org.br/Regions.aspx#BA)

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APPENDIX B
Scorpion list of the Chapada Diamantina National Park, Brazil. Occurrence by Municipality.

Taxon	English name	Occurrence			Register in scientific collection (*)			Phytophisiognomy/ Environment
		municipality	locality	coordinates: Longitude, Latitude	UFBA-ESC	UFMG-ARA	IBSP	
ANANTERIDAE								
Ananteris	scorpion	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	-	-	7820	Rupestrian grasslands
Ananteris balzanii Thorell, 1891	scorpion	Mucugê	RPPN - Odilia Paraguassú	41W 22' 59", 12S 00' 00"	-	-	4689	Indeterminate
Ananteris balzanii Thorell, 1891	scorpion	Mucugê	Indeterminate	41W 22' 59", 12S 00' 00"	2157	-	-	Indeterminate
BOTHRIURIDAE								
Bothriurus	scorpion	Mucugê	Estrada de Guiné	41W 22' 59", 12S 00' 00"	3605	-	-	Domicile
Bothriurus asper Pocock, 1893	scorpion	Lençóis	Sítio Campo da Batalha	41W 23' 22", 12S 33' 48"	2490	-	-	Indeterminate
Bothriurus asper Pocock, 1893	scorpion	Lençóis	Capão	41W 23' 22", 12S 33' 48"	1831	-	-	Rupestrian grasslands
Bothriurus asper Pocock, 1893	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	-	-	8035, 8036	Rupestrian grasslands
Bothriurus asper Pocock, 1893	scorpion	Mucugê	Fazenda Caraiba	41W 22' 59", 12S 00' 00"	2129-2142, 2318, 3036	-	-	Indeterminate
Bothriurus asper Pocock, 1893	scorpion	Palmeiras	Vale do Capão, Caeté-Açú	41W 33' 31", 12S 31' 44"	1818	-	-	Rupestrian grasslands
Bothriurus rochai Mello-Leitão, 1932	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	-	-	6524	Indeterminate
Bothriurus rochai Mello-Leitão, 1932	scorpion	Mucugê	RPPN - Odilia Paraguassú	41W 22' 59", 12S 00' 00"	-	-	4690	Indeterminate
Bothriurus rochai Mello-Leitão, 1932	scorpion	Mucugê	Indeterminate	41W 22' 59", 12S 00' 00"	2153	-	-	Indeterminate
Bothriurus rochai Mello-Leitão, 1932	scorpion	Mucugê	Rio Piaba	41W 22' 59", 12S 00' 00"	3624	-	-	Rupestrian grasslands
BUTHIDAE								
Tityus aba Candido, Lucas, de Souza, Diaz & Lira-da-Silva, 2005	scorpion	Mucugê	Estrada da Guiné	41W 22' 59", 12S 00' 00"	3594, 3595, 3596	-	-	Inside a house
Tityus aba Candido, Lucas, de Souza, Diaz & Lira-da-Silva, 2005	scorpion	Mucugê	Indeterminate	41W 22' 59", 12S 00' 00"	3209	-	-	Indeterminate
Tityus kuryi Lourenço, 1997	scorpion	Andaraí	Igatu	41W 19' 10", 12S 53' 44"	3194, 3207	-	-	Indeterminate
Tityus kuryi Lourenço, 1997	scorpion	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	2451, 2572, 3056	-	-	Indeterminate
Tityus kuryi Lourenço, 1997	scorpion	Palmeiras	Mata do Capão	41W 33' 31", 12S 31' 44"	-	12527	-	Rupestrian grasslands

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Taxon Phytophisiognomy/	English name	Occurrence municipality	locality	coordinates: Longitude, Latitude	Register in scientific collection (*) UFBA-ESC	UFMG-ARA	IBSP	Environment
Tityus kuryi Lourenço, 1997	scorpion	Palmeiras	Mata do Capão	41W 33' 31", 12S 31' 44"	-	12528	-	Rupestrian grasslands
Tityus kuryi Lourenço, 1997	scorpion	Palmeiras	Cachoeira da Fumaça, Vale do Capão, Caetê-Açú	41W 33' 31", 12S 31' 44"	1000-1003, 1005, 1006, 1600- 1608, 1866, 2123, 2124, 2166, 2167, 2194, 2197, 2204, 2269, 2286, 2505, 2529, 2530, 2542, 2569-2571, 2643, 2644, 2766, 2775, 2778, 3000- 3005, 3105, 3143, 3295, 3296, 3498, 3499	-	-	Rupestrian grasslands
Tityus neglectus Mello-Leitao, 1932	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	-	-	8038	Rupestrian grasslands
Tityus martinpaechi Lourenço, 2001	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	-	-	8037	Rupestrian grasslands
Tityus serrulatus Lutz & Mello, 1922	scorpion	Andaraí	Indeterminate	41W 19' 53", 12S 48' 27"	71, 190, 2931, 2939	-	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Ibicoara	Indeterminate	41W 17' 04", 13S 24' 39"	790, 819, 1276, 1281, 1282, 1388, 1409, 1410, 1414, 1616, 1721, 2444	-	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Itaeté	Indeterminate	41W 06' 20", 12S 06' 40"	-	-	2952	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	34, 88, 122, 538, 556, 581, 752, 1575	-	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Quilombo do Remanso	41W 23' 22", 12S 33' 48"	3614, 3615	-	-	Urban
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Indeterminate	41W 23' 22", 12S 33' 48"	-	-	4517, 5707	Rupestrian grasslands
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Sítio Campo da Batalha sobre o Grisante	41W 23' 22", 12S 33' 48"	1527	-	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Área de Proteção Marimbus	41W 23' 22", 12S 33' 48"	-	12522	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Lençóis	Área de Proteção Marimbus	41W 23' 22", 12S 33' 48"	-	12526	-	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Mucugê	RPPN - Odilia	41W 22' 59", 12S 00' 00"	-	-	4688	Indeterminate
Tityus serrulatus Lutz & Mello, 1922	scorpion	Mucugê	Indeterminate	41W 22' 59", 12S 00' 00"	401, 3599	-	-	Indeterminate

APPENDIX B - Cont.

Taxon Phytophisiognomy/	English name	Occurrence municipality	locality	coordinates: Longitude, Latitude	Register in scientific collection (*) UFBA-ESC	UFMG-ARA	IBSP	Environment
Tityus serrulatus Lutz & Mello, 1922	scorpion	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	1192, 1193, 1212, 1549, 1576, 1577	-	-	Rupestrian grasslands
Tityus serrulatus Lutz & Mello, 1922	scorpion	Palmeiras	Indeterminate	41W 33' 31", 12S 31' 44"	216, 217, 227, 1643, 3578	-	-	Indeterminate
Troglorhopalurus lacrau Lourenço & Pinto-da-Rocha, 1997	scorpion	Itaeté	Lapa do Bode	41W 06' 20", 12S 06' 40"	3042, 3043, 3052, 3079, 3572, 3632	-	-	Cave (BA-34)
Troglorhopalurus translucidus Lourenço, Baptista & Giupponi, 2004	scorpion	Lençóis	Gruta do Lapão	41W 23' 22", 12S 33' 48"	3273	-	-	Cave (BA-41)

(*) acronymes: UFBA-ESC - Coleção Aracnológica (ordem Scorpiones) do Museu de História Natural da Bahia, Universidade Federal da Bahia; UFMG-ARA - Coleção de Arachnida das Coleções Taxonômicas da UFMG; IBSP - Laboratório de Coleções Zoológicas, Instituto Butantan
Caves: code in parenthesis refer to CNC's code (https://sbecnc.org.br/Regions.aspx#BA)

APPENDIX C

Amblypygids, harvestmen, and pseudoscorpions list of the Chapada Diamantina National Park, Brazil. Occurrence by Municipality.

Taxon	English name	Occurrence municipality	locality	coordinates: Longitude, Latitude	Register in scientific collection (*) UFBA	IBSP	Register in Harvey, 2013a	Phytophisiognomy/ Environment
AMBLYPYGI					**UFBA-AMB**			
Amblypygi 12S 33' 48"	whip spiders	Lençóis	Lapão Cave	41W 23' 22",	16, 19, 20	-	-	Cave (BA-41)
PHRYNICHIDAE *Trichodamon princeps* Mello-Leitão, 1935	whip spiders	Mucugê	Sempre-Viva Park	41W 22' 59", 12S 00' 00	18	-	-	Rupestrian grasslands
OPILIONES					**UFBA-OPI**			
Opiliones	harvestmen	Lençóis	APA Marimbus	41W 23' 22", 12S 33' 48"	-	11650	-	Indeterminate
Opiliones	harvestmen	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	-	11655	-	Indeterminate
Opiliones	harvestmen	Lençóis	Lapão Cave	41W 23' 22", 12S 33' 48"	20, 22, 26, 32, 33, 35, 38	11659	-	Cave (BA-41)
Opiliones	harvestmen	Ibicoara	Serra do Espalhado	41W 17' 04", 13S 24' 39"	-	12858	-	Rupestrian grasslands

APPENDIX C - Cont.

Taxon Phytophisiognomy/	English name	Occurrence municipality	locality	coordinates: Longitude, Latitude	Register in scientific collection (*) UFBA-ESC	UFMG-ARA	IBSP	Environment
PSEUDOSCORPIONES					**UFBA-PSE**			
Pseudoscorpiones	false scorpions	Palmeiras	Vale do Capão	41W 33' 31", 12S 31' 44"	-	3767	-	Indeterminate
BOCHINIDAE *Spelaeobochica allodentatus* Mahnert, 2001	false scorpions	Palmeiras	Impossivel's Cave	41W 04'10", 10°12'52"S	-	-	X	Cave
CHERNETHIDAE *Spelaeochernes bahiensis* Mahnert, 2001	false scorpions	Itaeté	Poço Encantado, Lapa do Bode	41W 06'06", 12°57'38"S	-	-	X	Cave (MZUSP 13780) (BA-202) (BA-34)

(*) acronymes: UFBA-AMB, UFBA-OPI, UFBA-PSE - Coleção Aracnológica do Museu de História Natural da Bahia, Universidade Federal da Bahia; IBSP - Laboratório de Coleções Zoológicas, Instituto Butantan.Harvey, 2013a: Pseudoscorpions of the World, version 3.0. Western Australian Museum, Perth. http://www.museum.wa.gov.au/catalogues/pseudoscorpions.Caves: code in parenthesis refer to CNC's code (https://sbecnc.org.br/Regions.aspx#BA)