

**ATLANTIC MAMMALS: a data set of assemblages of medium- and large-sized mammals
of the Atlantic Forest of South America**

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Introduction

Information for assessing the conservation status of biological communities, and identifying priority areas for conservation, originates from biodiversity inventories (Galetti et al. 2009). Biodiversity inventories also provide information for assessing population demography, species richness, community structure and ecological processes (Caro et al. 2001, Myers 2000). Such information is particularly essential in tropical regions, since forest loss for agriculture, cattle ranching and human infrastructure resulted in a decline in species richness of between 20 to 75% (Laurance and Vasconcelos 2009, Haddad et al. 2015, Gonçalves et al. 2017). Unfortunately, most biodiversity inventories in the Neotropical region are sparse and/or not openly available for scientific use, which preclude major analytical progress and long-term monitoring (Barlow et al. 2007, Chazdon et al. 2009, Gardner et al. 2009, Canale et al. 2012).

The Atlantic Forest is one of the most ecologically diverse tropical forests, hosting more than 334 mammal species (Paglia et al. 2012, Gonçalves et al. 2018a). Modern biological inventories of medium to large-sized mammals in the Atlantic Forest began in the 1970's (Robinson et al. 2000) and have since been carried out in all major biogeographical regions of the Atlantic Forest. These studies have shown the Atlantic Forest to be notable for high endemism of primates (Culot et al. 2018), medium and large-sized mammals (Lima et al. 2017), small mammals (Bovendorp et al. 2017) and bats (Muylaert et al. 2017).

ATLANTIC MAMMALS is part of the Atlantic Series collection of data papers, which also includes information on frugivory (Bello et al. 2017), small mammals (Bovendorp et al. 2017), mammals recorded with camera trapping (Lima et al. 2017), bats (Muylaert et al. 2017), birds (Hasui et al. 2018), mammal traits (Gonçalves et al. 2018a), non-volant mammals from the Upper Paraná River Basin (Gonçalves et al. 2018b), amphibians (Vancine et al. 2018), primates (Culot et

al. 2018), butterflies (Santos et al. 2018), bird traits (Rodrigues et al. in press) and epiphytes (Ramos et al. in press), and represents the largest open data set of inventories of medium and large-sized mammal communities and assemblages in the Neotropical Region. Here we compile and make openly available a data set of 129 studies covering 244 mammalian assemblages that sampled medium and/or large-sized mammals in the Atlantic Forest of Brazil, Argentina and Paraguay. The data set includes information on species composition, richness, density, abundance and sampling effort, which are essential data for population and community ecology studies. Based on this database, researchers will be able to assess patterns and be able to: 1) prioritize areas for conservation; 2) identify the minimal sampling protocol necessary for standardizing the study of mammals in the Atlantic Forest; 3) design wildlife ecological corridors based on the occurrence of mammals; 4) evaluate the ecological consequences of fragmentation and defaunation; 5) assess the importance of protected and unprotected areas; 6) aid in understanding community composition; 7) assess potential trophic cascade effects mediated by mammals (Jorge et al. 2013), and 8) help to understand the impact and occurrence of invasive species (Pedrosa et al. 2015).

METADATA

Class I. Data set descriptors

A. Data set identity:

Title: ATLANTIC MAMMALS: a data set of assemblages of medium and large-sized mammals of the Atlantic Forest of South America

B. Data set and metadata identification codes:

Suggested Data Set Identity Codes:

ATLANTIC_MID_LARGE_MAMMALS_assemblages_and_sites.csv

C. Data set description:

1. Principal investigators:

1. Yuri Souza and Mauro Galetti,

Instituto de Biociências, Universidade Estadual Paulista (UNESP), Departamento de Ecologia, Rio Claro, São Paulo, 13506-900, Brazil and Department of Biology, University of Miami, Coral Gables, FL, USA

2. Abstract

Biodiversity inventories contain important information about species richness, community structure and composition, and are the first step in developing any conservation and mitigation strategies. The Atlantic Forest of South America is home to around 334 species of small, medium and large-sized mammals, and is currently restricted to less than 12% of its original cover. Here we present the ATLANTIC MAMMALS, an open data set on information on medium and large-sized mammal assemblages in the Atlantic Forest of Brazil, Paraguay and Argentina. A total of 129 studies were compiled, including published and in press peer-reviewed papers, book chapters, theses and unpublished data. We mapped 244 assemblages, eight orders, 63 genera and 94 species (24 of which are classified as threatened by the IUCN Red List) distributed in 128 protected and 116 unprotected areas. Species richness of the mammalian assemblages varied from 1 to 39 species (mean 15). The most recorded species in the entire biome was *Dasypus novemcinctus*, followed by *Cerdocyon thous* and *Procyon cancrivorous*. These data can be useful in support of

macroecological studies and conservation planning strategies. Please cite this data paper when the data are used in publications. We also request that researchers and teachers inform us of how they are using the data.

D. Key words: inventories, beta diversity, sampling method, biogeography, threatened mammals, protected and unprotected areas, conservation, compilation, distribution, communities

E. Description

The data set incorporates data from investigations between 1970 to 2019 at 244 sites distributed throughout the Atlantic Forest of Brazil (242 sites), Argentina (1 site) and Paraguay (1 site) over 29 degrees of latitude, 23 degrees of longitude, and from sea level to 2,600m a.s.l. (figure 1). The database thus provides information on almost all of the 1.56 million km² of the Atlantic Forest domain (Muylaert et al. 2018) and on a wide range of environmental conditions, including 12 vegetation types, eight biogeographical sub-regions, 28 ecoregions and eight bioregions (figure 2 - Olson et al. 2001, Ribeiro et al. 2009), encompassing great variation in temperature, precipitation and elevation. Of the bioregions defined by Ribeiro et al. (2009), the one with the most assemblages was “Floresta de Interior”, while no systematic inventories of mammals were recorded in our review in “São Francisco” and “Brejo Nordestino”. Most references — around 64.3% — are articles in peer-reviewed journals, while 25.4% are unpublished data, 6.6% are theses, 3.7% are books. Ninety six percent of all community sites were during the 21st Century.

The records of the data set represent 94% of the known diversity of medium and large-sized mammals in the Atlantic Forest, which comprises almost 100 mammal species (Paglia et al. 2012, updated by Gonçalves et al. 2018a). We provide information on 244 mammalian assemblages (figure 1) from 129 studies (figure 2-3) distributed among 94 species, 63 genera and

nine orders (figure 4). Carnivora (28 species) was the richest order, followed by Primates (22 species). The primate species *Alouatta belzebul*, *Callicebus barbarabrownae*, *Leontopithecus caissara* and *Leontopithecus rosalia* were not present in our database but their distribution is well known (Culot et al. 2018). In addition, we registered four domestic species (*Bos taurus*, *Equus caballus*, *Canis familiaris*, *Felis catus*) and two invasive species (*Lepus europaeus* and *Sus scrofa*). A total of 24 species are considered threatened by the IUCN Red List (2018) (figure 4). We made an ANOVA analysis using *R* statistical program (R Core Team, 2013) and, as expected, we found a strong relationship between species richness and protected areas status, with greater richness in protected areas ($p = 0.01868$ - figure 5). We also made a table showing the number of studies and assemblages in each Atlantic Forest Bioregions and the total forest remnants sampled (0.089% - Table 1).

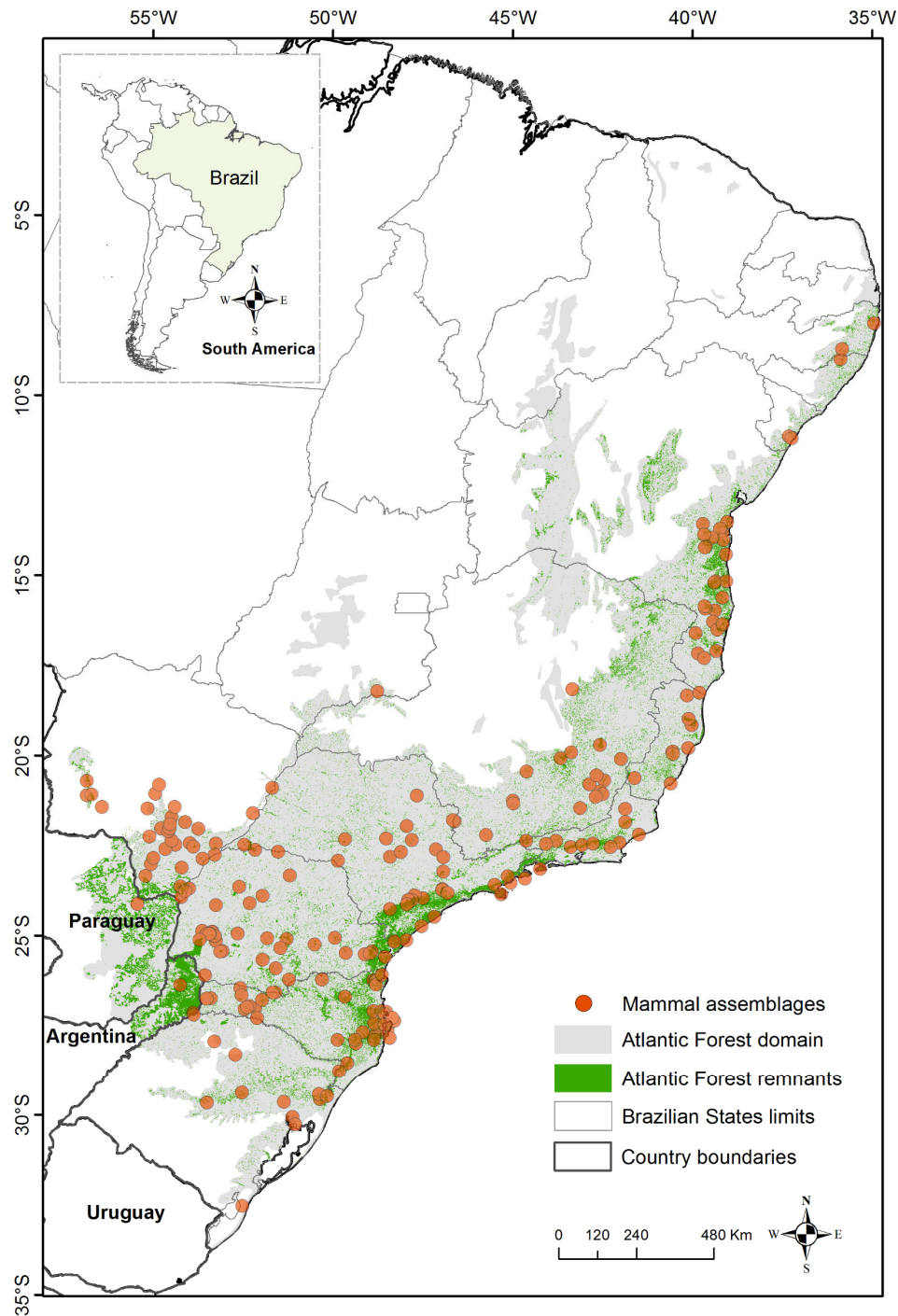


Fig 1. Distribution of records for medium and large-sized mammal assemblages in the Atlantic Forest. The original distribution of the Atlantic Forest is shaded gray while remaining Atlantic Forest patches (*sensu* Ribeiro et al., 2009) are green. Orange circles represent the sites of all 244 compiled assemblages. Gray lines delimit the South American countries and Brazilian states encompassed by the Atlantic Forest domain.

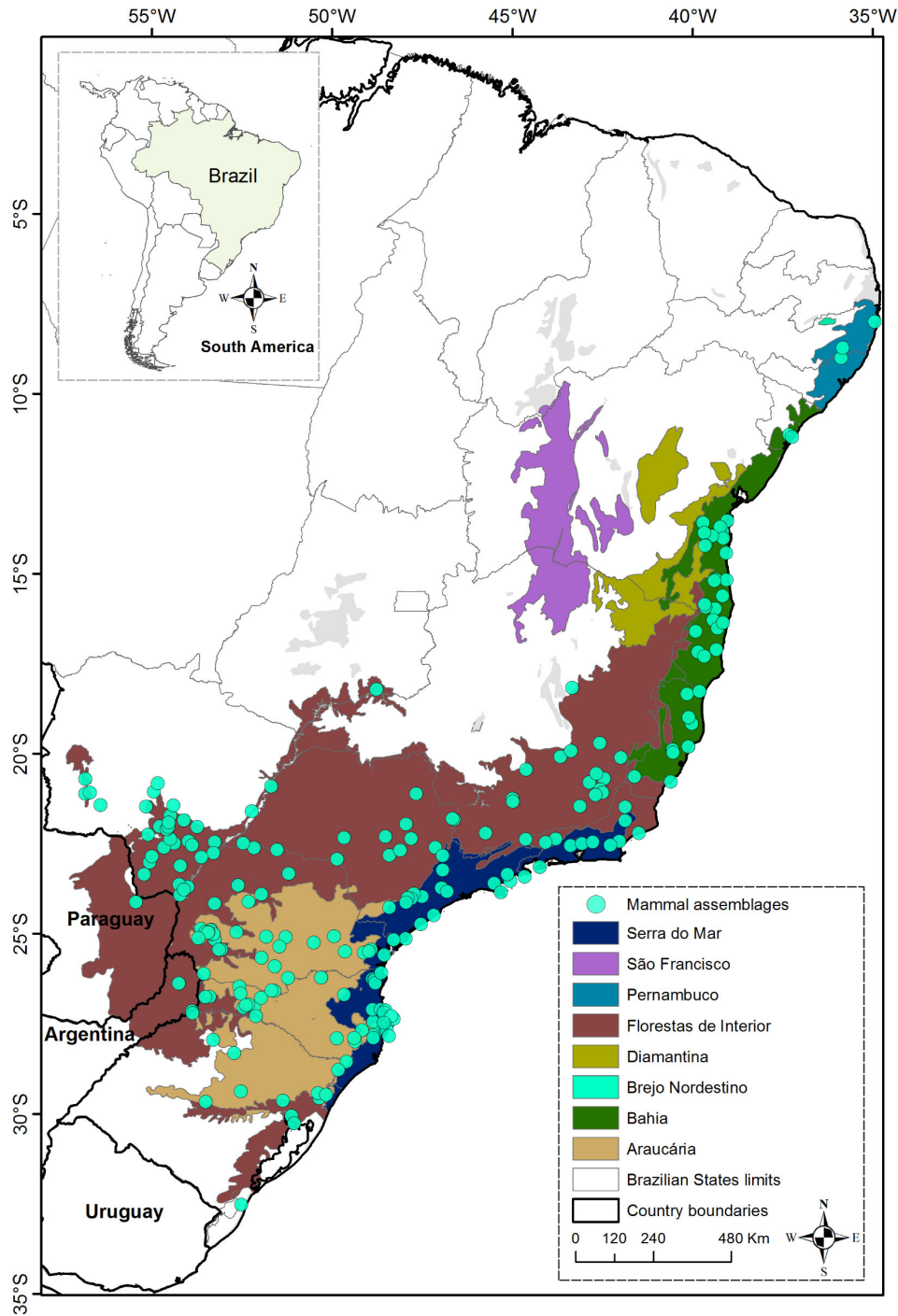


Fig 2. Distribution of medium and large-sized mammal assemblages among bioregions of the Atlantic Forest. Colors represent bioregions as suggested by Olson et al. (2001) and mapped by Ribeiro et al (2009) to compose the Atlantic Forest domain. Circles represent all the 244 sites of the compiled assemblages.

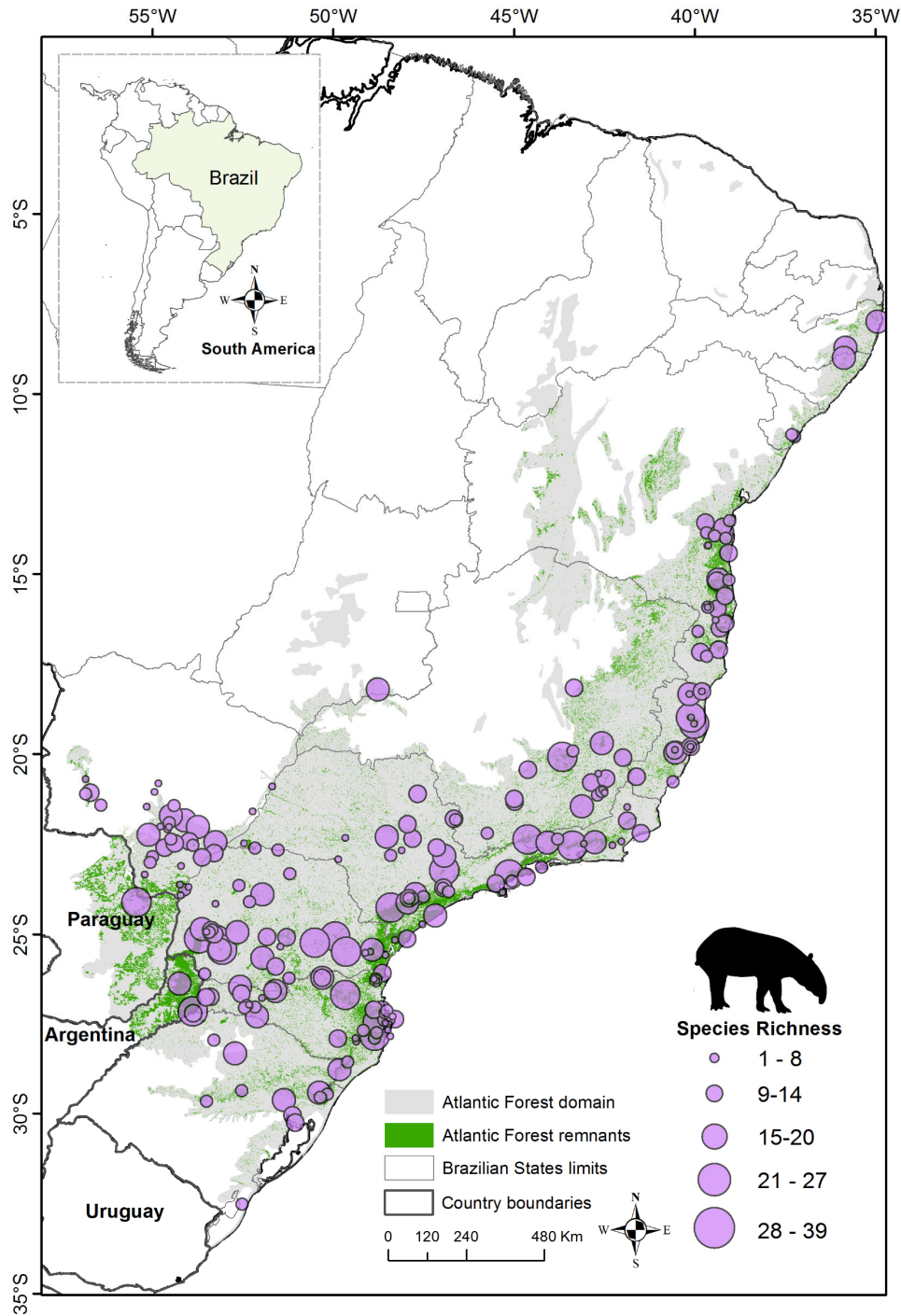


Fig 3. Species richness of medium and large-sized mammal assemblages in the Atlantic Forest. The size of the purple circles represents the species richness of each site. The original distribution of the Atlantic Forest is shaded gray while remaining Atlantic Forest patches (*sensu* Ribeiro et al., 2009) are green.

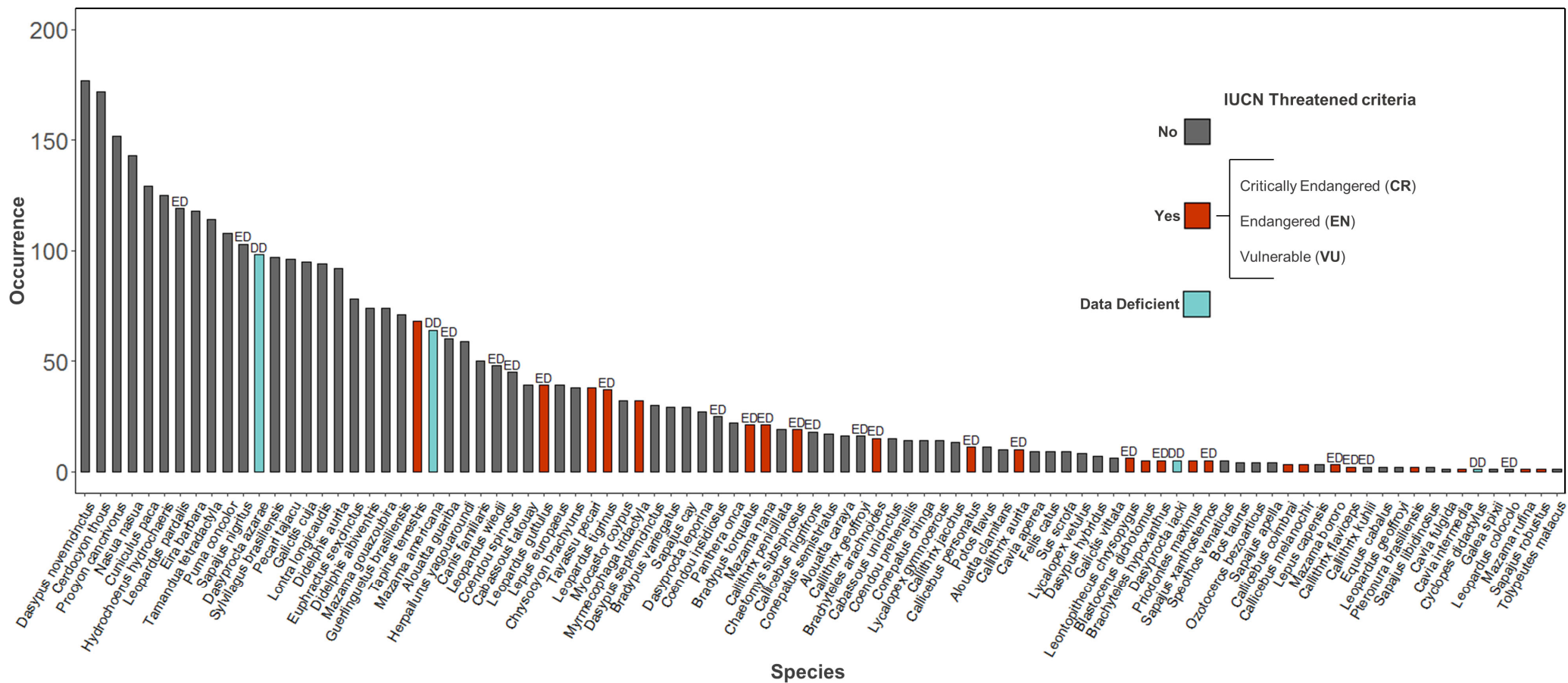


Fig 4. Frequency of occurrence of all medium and large-sized mammal species among compiled sites/assemblages/references and their respective conservation status according to IUCN Red List of threatened species. Species that are not considered to be under any level of threat are in gray, species with Data Deficient are in light blue color and indicated by DD, and species considered Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) are in red (IUCN, 2018). ED indicates endemic species of the Atlantic Forest.

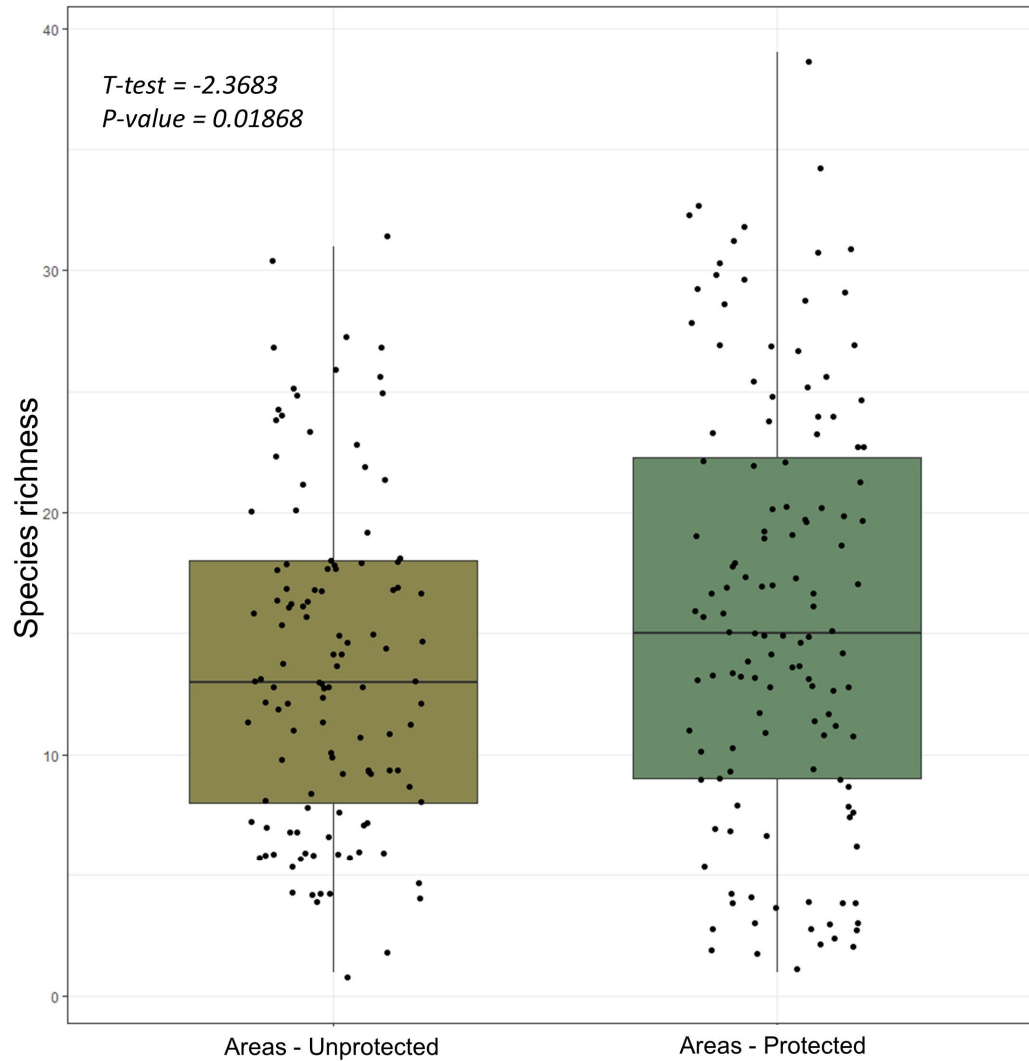


Fig 5. Relationship between protected and unprotected areas and species richness of medium and large-sized mammals within the Atlantic Forest of South America. There are 128 sites in protected areas with 1 – 39 (median 17) species, and 116 assemblages in unprotected areas with 1 – 34 (median 15). There is greater species richness in protected areas ($p = 0.01868$ from *log-scale* of Species richness and treatment).

Class II. Research origin descriptors

A. Overall project description

1. Identity: Compilation of assemblages of medium and large-sized mammals of the Atlantic Forest of South America, considering different methods of sampling.

2. Originators: The ATLANTIC MAMMALS was coordinated by Yuri Souza and Mauro Galetti. The database was compiled with help from Yuri Souza, Fernando Gonçalves, Laís Lautenschlager, Paula Akkawi, Calebe Mendes and Mariana Monteiro Carvalho. This is part of the ATLANTIC SERIES, which is led by Mauro Galetti and Milton Ribeiro at São Paulo State University (UNESP), Brazil.

3. Period of Study: 1970-2019.

4. Objectives: Our objectives for compiling these data were: (1) to summarize information about inventories of medium and large-sized mammals in the Atlantic Forest of South America by focusing on species occurrence, richness and abundance. Our data set represents the first attempt to make openly available on a large-scale inventories of medium and large-sized mammals in the Atlantic Forest of South America, with potential applications to the establishment of wildlife conservation corridors (Aars and Ims 1999), performing macroecological research (Galetti et al. 2013), the development of conservation strategies (Banks-Leite et al. 2014) and undertaking population and community ecology research (Pacheco et al. 2013).

5. Abstract: Same as above.

6. Source (s) of funding: This data set is the result of a long history of environmental projects, with its compilation being supported by grants and scholarships from the Fundação de Amparo à

Pesquisa do Estado de São Paulo (FAPESP: 2017/24252-0, 2014/01986-0, 2013/50421-2), CNPq (processes # 312045/2013-1; #312292/2016-3), Brazilian Research Council and the Coordination for the Improvement of Higher-Level Personnel.

B. Specific subproject description

1. Site description: The Atlantic Forest is home more than 100 medium and large-sized mammal species, including 17 endemics, more than 50% of which are globally threatened. They occur mainly in southern and southeastern lowlands, southeastern mountains and the Northeast Region of Brazil (Bencke et al. 2006; IUCN 2018). This high diversity is the result of high environmental heterogeneity due to wide latitudinal (3° to 33° S) and altitudinal (0 to ~2,600 m a.s.l.) ranges, diverse climate regimes (mean annual temperature ranges from 12.4 to 28.7°C, and annual rainfall ranges from 1,000 to 4,200 mm), and many different forest types (IBGE 2008, Ribeiro et al. 2011). This biogeographic realm stretches from northeastern to southern Brazil, includes northern Argentina and southeastern Paraguay, and covers around 1.56 million km² (Muylaert et al. 2018). More than 85% of domain's original extent has already been lost or fragmented (Ribeiro et al. 2009), with the main threats to biodiversity being forest loss, fragmentation and forest disturbance associated with human occupation and activity (e.g. logging and poaching) (Bencke et al. 2006). In addition, more than 80% of the remaining Atlantic Forest remnants are isolated (> 1 km from the nearest remnant), small (< 50 ha) and surrounded by agricultural areas (Ribeiro et al. 2009, Joly et al. 2014).

2. Data compilation: The mammal assemblages of ATLANTIC MAMMALS were obtained using search engines, regardless of publication year. We searched the terms (in English, Portuguese and Spanish) “non-volant”, “terrestrial”, “medium- to(and) large-sized(bodied) mammals” combined

with “Atlantic Forest”, in Scopus ([http:// www.scopus.com/](http://www.scopus.com/)), Web of Science ([https://apps.webofknowledge. com/](https://apps.webofknowledge.com/)) and Scielo (<http://www.scielo.br/>), in addition to searching the first 100 results of searches with Google Web (<https://www.google.com>) and ResearchGate (<https://www.researchgate.net/>). The searches were conducted from august of 2018 until January of 2019, and included published and in press peer-reviewed papers, book chapters, theses and unpublished data of studies throughout most of the original extent of the Atlantic Forest of South America.

3. Research methods: Studies were included in the database that reported sampling of medium and large-sized mammal species, and included information on sampling design, sampling effort and occurrence. Lack of information was reported as NA (Not Available). Some studies that did not provide substantial detailed information about assemblages and do not provide the geographical coordinate and/or use just camera traps, interviews or museum data as unique method to sampling the mammal assemblages and/or sampled a specific mammal group were excluded during the early stages of assembling the database. Inventory data that used interviewing methods, visualizations, vocalizations and animal tracks are referred as Mixed Methods. The same was done for inventories that did not specify which species were found by each sampling method. We also included information regarding geographical location by tabulating latitude, longitude, locality, municipality, state and country. As medium and large-sized mammals we considered species over 1kg (see Srbek-Araujo and Chiarello 2005), although we also included the genera *Callithrix* and *Guerlinguetus* because some inventories considered them as medium-sized mammals.

According to the studies, most medium and large-sized mammals were sampled through active searching along a linear transect (>1 km) at the edge of forest formations with direct observation in the field, by observing carcasses or isolated body parts, such as teeth and horns,

burrows (armadillos), feces (capybara and tapir), vocalizations (primates) and tracks. For *Mazama* spp., *Speothos venaticus* and smaller felids, tracks and direct observations were used together for identification of species. Additionally, at some sampling sites, medium and large-sized mammals were also surveyed using camera traps installed along dirt roads and forest trails in tree trunks. We do not include studies that used only interviews because of the inherent misleading of species identification. Likewise, studies that used only Museum sampled were also not considered due to lack of information regarding locality and sampling effort.

Data were compiled from Stallings et al. (1991), Pinto et al. (1993), Leonel (1994), Cherem and Perez (1996), Graipel et al. (1997), Machado (1998), Chiarello (1999), Chiarello (2000a), Chiarello (2000b), Passamani et al. (2000), Quadros et al. (2000), Robinson et al. (2000), Wallauer et al. (2000), Cullen et al. (2001), Briani et al. (2001), Graipel et al. (2001), Quadros and Cáceres (2001), Silva (2001), Mateos et al. (2002), Fernandes (2003), De Moura (2003), Geise et al. (2004), Pianca (2004), Pardini and Develey (2004), Gaspar (2005), Paglia et al. (2005), Passamani et al. (2005), Rocha-Mendes et al. (2005), Negrão and Valladares (2006), Cáceres et al. (2007), Bovendorp and Galetti (2007), Junior (2007), Kasper et al. (2007a), Kasper et al. (2007b), Koester-Gobbo (2007), Araujo et al. (2008), Cherem and Kammers (2008), Do Prado et al. (2008), Miranda et al. (2008), Modesto et al. (2008), Modesto et al. (2008), Penter et al. (2008), Salvador and Fernandez (2008), Abreu-Junior and Köhler (2009), Chagas (2009), Eduardo and Passamani (2009), Nacif et al. (2009), Chagas et al. (2010), Cunha (2010), Da Silva and Passamani (2010), Peters (2010), Cherem et al. (2011), Dotta and Verdade (2011), Duprat and Andriolo (2011), Espartosa et al. (2011), Marques et al. (2011), Alves et al. (2012), Brocardo and Cândido-Júnior (2012), Cherem and Salmoria (2012), Delciellos et al. (2012), Dias et al. (2012), Falcão et al. (2012), Junges and Cademartori (2012), Melo et al. (2012), Norris et al. (2012), Penido and Zanzini

(2012), Pires and Cademartori (2012), Portella and Flynn (2012), Albuquerque et al. (2013), Bogoni et al. (2013), Carvalho et al. (2013), Flesher and Laufer (2013), Kionka (2013), Morcatty et al. (2013), Nunes et al. (2013), Oliveira (2013), Oliveira et al. (2013), Oliveira et al. (2013), Pazio (2013), Pereira et al. (2013), Spezia et al. (2013), Wolfart et al. (2013), Cáceres et al. (2014), Carvalho et al. (2014), Gatti et al. (2014), Juraszek et al. (2014), Lima and Pasciani (2014), Magioli et al. (2014), Reale et al. (2014), Rossaneis (2014), Tortato et al. (2014), Cherem and Althoff (2015), De Souza (2015), Fornitano et al. (2015), Hendges et al. (2015), Maciel and Maciel (2015), Rocha-Mendes (2015), Rocha et al. (2015), Vale and Pereira (2015), Albuquerque et al. (2016), Bogoni et al. (2016), De Oliveira et al. (2016), Lima (2016), Machado et al. (2016), Preuss et al. (2016), Santos et al. (2016), Xavier (2016), Dornelles et al. (2017), Huck et al. (2017), Pereira et al. (2017), Brocardo (2018), Cáceres et al. (2018), Culot et al. (2018), Graipel et al. (2018), Gonçalves et al. (2018), Fernandes-Ferreira (2018), Jorge et al. (2018), Pereira et al. (2018), Rosa (2018), Silva-Filho et al. (2018), Travassos et al. (2018), and Zago and Miranda (2018).

4. Taxonomic data: We followed Wilson and Reeder (2005) for the taxonomic classification of medium and large-sized mammal species compiled, except for the genera *Leopardus* and *Guerlinguetus* for which we followed Nascimento (2010) and de Patton et al. (2015), respectively. To confirm the weight of species, when necessary, we used the descriptions of Brazilian mammal species in Reis et al. (2006) and Reis et al. (2010).

C. Data limitations and potential enhancements

In general, a complete inventory of species richness for any organism is a hard task, and medium and large-sized mammals are no exception. Due to their elusive and nocturnal behavior, many terrestrial mammals are remarkably difficult to monitor and study. Furthermore, available

demographic data are often insufficient for appropriately guiding conservation actions or for better understanding the population biology of these mammals (Nowell and Jackson 1996; Macdonald and Loveridge 2010).

We also recognize that documenting all species of terrestrial mammals present in megadiverse ecosystems depends on sampling effort, the habitats sampled and the detectability of each species (Tobler et al. 2008a). Some species are too rare (e.g. *Panthera onca*, *Speothos venaticus*, *Priodontes maximum*) or move too fast to be easily recorded by images or traces (*Galictis* spp.), and thus require intensive sampling for their detection (Fusco-Costa and Ingberman 2013). Several species occur along water bodies (e.g., *Cuniculus paca*, *Hydrochoerus hydrochaeris*, *Lontra longicaudis*) and may not be recorded if this habitat is not sampled (Beca et al. 2017). Sampling along roads and large trails can also affect detectability and thus the species recorded (Harmsen et al. 2010, Bitetti et al. 2014). However, the sampling effort of the main method employed by the inventories (linear transect) has a relevant influence on medium and large-sized mammal species richness, with it being used exclusively in 66 assemblages, and with a maximum of 33 species registered only by this method.

Nevertheless, sampling medium and large-sized mammal is complex and demands a combination of survey methods, along with consistent sampling effort and indirect observations (tracks, footprints, scats and other sign) that can only be obtained with a large number of traps and/or long-term surveys (Fragoso et al. 2016). As an alternative, non-invasive genetic sampling has recently become a powerful tool for studying and monitoring elusive and low-density species (Waits and Paetkau 2005; Miotto et al. 2014). DNA from sources such as hair or feces can be used as molecular “tags” in mark–recapture population censuses (De Barba et al. 2010; Miotto et al. 2014). Each animal has a unique multilocus genotype, making individual identification possible.

In addition, sex, kinship and genetic variation of focal populations can also be assessed via fecal DNA, thus allowing sex ratios, inter-individual relationships (Miotto et al. 2012), genetic variation and gene flow among-populations (Miotto et al. 2011) to be estimated.

All of the studies compiled for medium and large-sized mammals used active and consistent sampling that involved both direct and indirect observations. These methods are efficient at recording a great number of mammal species (Galetti et al. 2015, Fragoso et al. 2016), but are dependent on the quality of the soil for observing tracks, sampling effort and researcher experience. Camera traps and non-invasive genetic sampling are certainly useful for detecting rare, elusive and nocturnal species; reducing the time that researchers must spend in field; and recording species which are difficult to identify by tracks and other sign, such as deer of the genus *Mazama* and some small cats (Tomas and Miranda 2012).

Although there are intense anthropogenic actions in the Atlantic Forest, it still shelters a rich fauna of medium and large-sized mammal species, of which more than 50% are considered vulnerable and/or near threatened with extinction on a global level. We also identified some regions of some Brazilian states with little if any information about medium and large-sized mammals, such as the northern region of Minas Gerais, the northern and interior regions of Bahia, Sergipe, Alagoas, Pernambuco and Paraíba, and the bioregions of “*São Francisco*” and “*Brejo Nordestino*”. This same pattern was also found by Lima et al. (2017) — another data paper on medium and large-sized mammals. Nevertheless, we recognize the impressive effort of the biologists who carried out the studies that now comprise the largest data set openly available for assemblages of medium and large-sized mammals of the Atlantic Forest. We expect that this database will allow researchers to recognize some patterns and be able to: 1) determine priority areas for sampling mammals; 2) determine the minimal sampling protocol necessary for

standardizing the study of mammals in the Atlantic Forest; 3) design wildlife corridors based on the occurrence of mammals; 4) evaluate the ecological consequences of landscape fragmentation and defaunation; 5) evaluate the importance of protected and unprotected areas; 6) better understand community composition, 7) identify potential trophic cascades mediated by mammals (Jorge et al. 2013), and 8) document the impact and occurrence of invasive species (Pedrosa et al. 2015, da Rosa et al. 2017).

CLASS III. DATA SET STATUS AND ACCESSIBILITY

A. Status

1. Latest update: May 2019

2. Latest archive date: May 2019

3. Metadata status: Last update 08 May 2019, version submitted

4. Data verification: Data is mostly from published sources. We searched for extreme values, corrected any transcription errors and homogenized taxonomic information.

B. Accessibility

1. Contact person: Yuri Silva-de-Souza (email: yuri.eco2013@gmail.com) and Mauro Galetti (email: mgaletti@rc.unesp.br) Departamento de Ecologia, Universidade Estadual Paulista, Rio Claro, São Paulo, 13506-900, Brazil. and Department of Biology, University of Florida, Coral Gables, USA.

2. Storage location

In addition to this Data Paper publication, the data set can be accessed on the GitHub Inc. repository (<https://github.com/yuri-eco/ATLANTIC-MAMMALS-of-medium-and-large-sized>) in .csv format.

3. Copyright restrictions: None.

4. Proprietary restrictions: Please cite this data paper when the data are used in publications. We also request that researchers and teachers inform us of how they are using the data.

5. Costs: None.

CLASS IV. DATA STRUCTURAL DESCRIPTORS

A. Data Set File

1. Identity: ATLANTIC_MAMMAL_MID_LARGE _assemblages_and_sites.csv

2. Size: 4681 rows, 40 columns and 244 assemblages, 2,321 KB

3. Format and storage mode: comma-separated values (.csv)

4. Header information: See column descriptions in section B.

5. Alphanumeric attributes: Mixed.

6. Special characters/fields: None

7. Authentication producers: None

B. Variable information

1) Table 1. Assemblages and Study sites information

Table 1. Information for medium and large-sized mammal sampling for each bioregion defined by Ribeiro et al. (2009), including the number of studies (out of the total 129 compiled), number of assemblages (out of the total 244 compiled), number of remaining fragments of Atlantic Forest (as mapped by Ribeiro et al., 2009) and the percentage of fragments sampled.

Bioregions	Number of studies	Number of assemblages	Number of fragments	% of fragments sampled
Serra do mar	30	53	20658	0.256
São Francisco	0	0	7919	0
Pernambuco	2	5	8518	0.058
Floresta de Interior	56	96	142346	0.067
Diamantina	1	1	14631	0.006
Brejo Nordestino	0	0	128	0
Bahia	15	44	35468	0.124
Araucaria	25	45	41875	0.107
TOTAL	129	244	271543	0.089

2) **Table 2.** Information on assemblages and study sites

Table 2. Information on assemblages and study sites: Description of the fields related to species information – ATLANTIC_MID-LARGE_assemblages and study sites.csv.

Type of information	FIELD	DESCRIPTION	LEVELS	EXEMPLE
SITE INFORMATION	ID	Identification code for each assemblages	AML01 – AML244	AML01
	reference_paper_number	Number of references on mammal assemblages	1-129	1
	country	Country of the study		Brazil
	state	State of the study		sao_paulo
	municipality	Municipality of the study		Botucatu
	study_location	Specific location of the study		Caetetus Ecological Station
	latitude	Decimal coordinates		-22,3333
	longitude	Decimal coordinates		-46,66667
	precision	Precision of the given coordinate	precise not-precise	not-precise
	size_ha	Forest size (in hectares)		2254

	temperature	Degrees Celsius (°C)		23
	altitude	Meters (m) above sea level		1190
	annual_rainfall	Mean annual precipitation (mm)		1230
	vegetation type	Atlantic Forest vegetation type		Tropical Evergreen Broadleaf Forest
	protect_area	Study site within protected area	yes no	yes
	matrix	Most common plantings around forest patch		Sugarcane and pasture
REFERENCE INFORMATION	reference	Extended information of the reference		Bovendorp, R. S. and Galetti, M. (2007). Density and population size of mammals introduced on a land-bridge island in southeastern Brazil. Biol. Invasions 9, 353-357
	publication_year	Year of publication		2007

	type_of_publication	Type of publication	Article Book Thesis Unpublished data	Article
CAPTURE INFORMATION	month_start	Month survey started	January-December	May
	year_start	Year survey started		2010
	month_finish	Month survey ended	January-December	September
	year_finish	Year survey ended		2011
	total_of_months	Total of months sampled		24
	sampling_habitat	Location of sampled habitat	Interior Edge Interior and Edge	Edge
	effort	Sampling effort		20

effort_method	Type of sampling effort	camera_days camera_hours days hours kilometers meters plot_day trap_nights	days
method	Sampling method	line_transect cam_trap live_trap sand_plot vehicles mixed_method	line_transect
order	Order		Carnivora
genus_on_paper	Genus		<i>Puma</i>
species_name_on_paper	Species, as reported in the reference		<i>Felis yagouaroundi</i>
actual_species_name	Species, as reviewed by specialist		<i>Puma yagouaroundi</i>
number_of_record	Total number of records		15

density_ groups/km2	Density of groups per km ²		1.4
density_ ind/km2	Density of individuals per km ²		0.04
density_ ind/km10	Density of individuals per km ¹⁰		0.0595
abundance_%	Species percentage abundance		44
abundance_ relative	Species relative abundance		0.12
abundance_10/ km	Abundance of species per km ¹⁰		0.38
voucher_ specimens	Voucher specimens in collection or museum cited in reference		FURB 12245

C. DATA ANOMALIES: If no information is available for a given record, this is indicated as 'NA'.

CLASS V. SUPPLEMENTAL DESCRIPTORS

A. Data acquisition

1. Data request history: None

2. Data set updates history: None

3. Data entry/verification procedures

G. History of data set usage:

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