

RESEARCH ARTICLE

## Mygalomorphae spiders (Araneae) recorded by the Sistema de Notificação de Animais Peçonhentos (SINAP) in the state of Paraná

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<https://zoobank.org/98A44C93-67B8-4D0C-B43B-C157B47B9268>

**ABSTRACT.** Despite their large size and intimidating appearance, most mygalomorph spiders do not cause severe envenomation in Brazil. “Programa Estadual de Vigilância de Acidentes por Animais Peçonhentos da Secretaria de Estado da Saúde do Paraná”, through the “Sistema de Notificação de Animais Peçonhentos” (SINAP), documents the occurrence of synanthropic species captured by the public and reported to municipal health services. In this study, we present a list of the mygalomorph species received by Secretaria de Saúde do Estado do Paraná (SESA) and their distribution across the state of Paraná, based on the SINAP reports. A total of 575 mygalomorph specimens were identified, originating from all 22 Regional Health Centers (RS) of SESA-PR. We identified species of four families: Actinopodidae (on species: *Actinopus itapitocai*); Dipluridae (1 species: *Diplura catharinensis*; Pycnothelidae (two species: *Psalistopoides emanueli*, and *P. fulvimanus*); and Theraphosidae (10 species in four genera: *Acanthoscurria paulensis*, *Eupalaestrus campestratus*, *Grammostola actaeon*, *Pterinopelma longisternale*, *Tekoapora wacketi*, *Vitalius dubius*, *V. lucasae*, *V. paranaensis*, *V. sorocabae* and *V. vellutinus*). Of the aforementioned species, *Vitalius paranaensis* has the widest distribution, occurring in all Regional Centers of Health except Paranaguá. The other most frequently collected species were *Pterinopelma longisternale*, *Vitalius sorocabae*, and *Psalistopoides emanueli*. In total, the 575 records resulted in only 12 accidents. The results highlight the broad distribution of some species; contributes to the identification of the main species encountered by the population and reported to SINAP in Paraná; and helps to bring attention to the low number of accidents caused by these large-sized spiders.

**KEY WORDS.** Accidents, Brazil, distribution, mygalomorphs, spiders.

### INTRODUCTION

“Programa Estadual de Vigilância de Acidentes por Animais Peçonhentos e Venenosos da Secretaria de Saúde do Estado do Paraná (PEVAAPV-SESA)” documents the presence of synanthropic species (regardless of whether they cause accidents) collected by the general public and referred to local health services. The aim of PEVAAPV-SESA is to identify venomous species that may cause accidents or are present within the state’s municipalities. This information

is important in the diagnosis and treatment of potential incidents (SESA 2023). After being received, the animals are sent for taxonomic identification and assessment of the severity of the risk in case of accidents, at the “Laboratório de Taxonomia” (LABTAX) of the “Centro de Informações e Assistência Toxicológicas” (CIATox-PR). Species’ identification reports are issued to the suppliers/collectors, as an attempt to provide guidance to prevent accidents. Generally, specimens in good morphological condition or those responsible for accidents are catalogued in the “Coleção Aracnológica” of

SESA, as representative material of the arachnological fauna of the state of Paraná. Currently, this collection houses over 13,600 tubes containing arachnids, most in the orders Araneae and Scorpiones.

Mygalomorph spiders are noteworthy for their comparatively large size, a characteristic that often instills fear in the general public. These animals typically have a hirsute body, and articulated chelicerae that move in a distinctive manner, parallel to the longitudinal axis of the body (orthognathous chelicerae). Although mygalomorph spiders have the potential to cause envenomation, they generally do not pose significant danger in Brazil (Brasil 2001). Among the Arachnida collection of SESA, mygalomorphs stand out in number of specimens received. Most belong in the family Theraphosidae (commonly known as “tarantulas”). The mygalomorph collection currently includes over 750 cataloged specimens preserved at LABTAX. Information about specimens is recorded in a spreadsheet within the database of the “Coleção Aracnológica” of SESA. We present a list including the distribution and material of mygalomorph species recorded in the state of Paraná and housed in the “Coleção Aracnológica” of SESA since it was implemented in the State.

## MATERIAL AND METHODS

A total of 757 mygalomorph specimens were examined (Figs 1–4), of which 575 were compiled from the “Coleção Aracnológica” of SESA and collected either by Paraná’s residents or health care professionals (Fig. 5). The remaining specimens were included based on historical records of mygalomorphs in Paraná (Figs 6–10; World Spider Catalog 2023).

The collection data of specimens from SESA (date, collector, locality, and notification of possible accidents) was included in the “Sistema de Notificação de Animais Peçonhentos” (SINAP), with the specimens sent to their respective Regional Centers of Health (RS) and then to LABTAX for analysis. The records compiled there range from 1991 up to 2019, considering the database of the SINAP, based on specimens sampled by local residents since 1991. Health care professionals in all 399 municipalities of Paraná have been trained in the fixation and transport of specimens, thus creating a standardized workflow for identification.

The material is deposited in the following institutions: LABTAX, CIATox-PR from SESA, Piraquara (SESA; curator: E. Marques-da-Silva), and Instituto Butantan, São Paulo (IBSP, curator: A.D. Brescovit). The list of species was organized following their respective families and genera. The data of the

species are noted for each taxon according to the following pattern: Historical records. PARANÁ: locality [geographical coordinates], data (when provided), collector (reference consulted); New records. PARANÁ: locality [geographical coordinates], data (when provided), collector (voucher). Records without any information about geographic coordinates were georeferenced using the geoLoc tool of species-Link (<http://splink.cria.org.br/geoloc>) for the localities, whereas records without exact location were not recorded in the maps. The number of records of species and species richness were calculated based on grids of 0.2°. All maps were prepared from DIVA-GIS version 7.5.0.0 (Hijmans et al. 2001). Information on the monthly numbers of species was analyzed based on adult specimens, since immatures are not registered in the collections. The graphs used were obtained from package “gplots” in the software R ver. 3.5.0 (R Core Team 2017) and the data used are from the last 10 years, which presents a large number of annual records.

## RESULTS

### Diversity and distribution

A total of 14 mygalomorph species were recorded from four families: Actinopodidae, with *Actinopus itapitocai* Miglio, Pérez-Miles & Bonaldo, 2020; Dipluridae, with *Diplura catharinensis* (Mello-Leitão, 1927); Pycnothelidae, with the species *Psalistopoides emanueli* Lucas & Indicatti, 2006 and *P. fulvimanus* Mello-Leitão, 1934 and finally the most richly collected family Theraphosidae, with four genera and 10 species, *Acanthoscurria paulensis* Mello-Leitão, 1923, *Eupalaestrus campestratus* (Simon, 1891), *Grammostola actaeon* (Pocock, 1903), *Pterinopelma longisternale* (Bertani, 2001), *Tekoapora wacketi* (Mello-Leitão, 1923), *Vitalius dubius* (Mello-Leitão, 1923), *V. lucasae* Bertani, 2001, *V. paranaensis* Bertani, 2001, *V. sorocabae* (Mello-Leitão, 1923), *V. vellutinus* (Mello-Leitão, 1923) (Table 1). In a preliminary analysis of the material, we have detected the unpublished females of *P. fulvimanus*, which were recently described by Brescovit et al. (2023).

The 17<sup>th</sup> RS area showed the highest number of species, with eight out of the 14 recorded species (Fig. 7). On the other hand, the 10<sup>th</sup> RS in western Paraná had the highest number of records, with 33 occurrences of mygalomorph species. Notably, within the same RS, we identified two areas with a substantial number of occurrences, one in the eastern and another in the western part of the municipality of Cascavel, which has one of the highest rates of mygalomorph encounters in the state (Fig. 8). Regarding the number of records, there is no information on the occurrence of mygalomorphs



Figures 1–4. Living mygalomorph spiders from Paraná state: (1) *Diplura catharinensis*, male; (2) *Actinopus itapitocai*, female; (3) *Vitalius sorocabae*, female; (4) *Vitalius paranaensis*, female.

in the border between the states of Paraná and São Paulo and in the metropolitan and coastal areas (1<sup>st</sup> and 2<sup>nd</sup> RS) (Fig. 8). Although the central area of Paraná has been relatively well sampled, there are still significant sampling gaps, particularly along the boundaries of the state. Mygalomorphs in the areas corresponding to the 1<sup>st</sup>, 7<sup>th</sup>, and 21<sup>st</sup> RS are notably underreported, with only three recorded instances (Figs 7, 8). Throughout RS in Paraná, we have documented at least one mygalomorph species.

Among the 575 examined species, only 12 caused accidents, as indicated in the registration information. The species *Pterinopelma longisternale* had the highest number

of accidents (n = 6) reported in five RS, followed by *Vitalius paranaensis* (n = 4) in four RS. Only one accident each was reported involving *Psalistopides emanueli* and *Vitalius sorocabae*. It is essential to highlight that none of these accidents resulted in records of clinically significant symptoms for the injured individuals.

The highest number of records correspond to *Pterinopelma longisternale* and *V. paranaensis*, each with 200 records (Fig. 10). *Vitalius paranaensis* has been reported in 21 out of the 22 RS, excepting the 1<sup>st</sup> RS (Paranaguá), in the coastal region of the state (Fig. 17). *Pterinopelma longisternale*, on the other hand, does not have any records in the

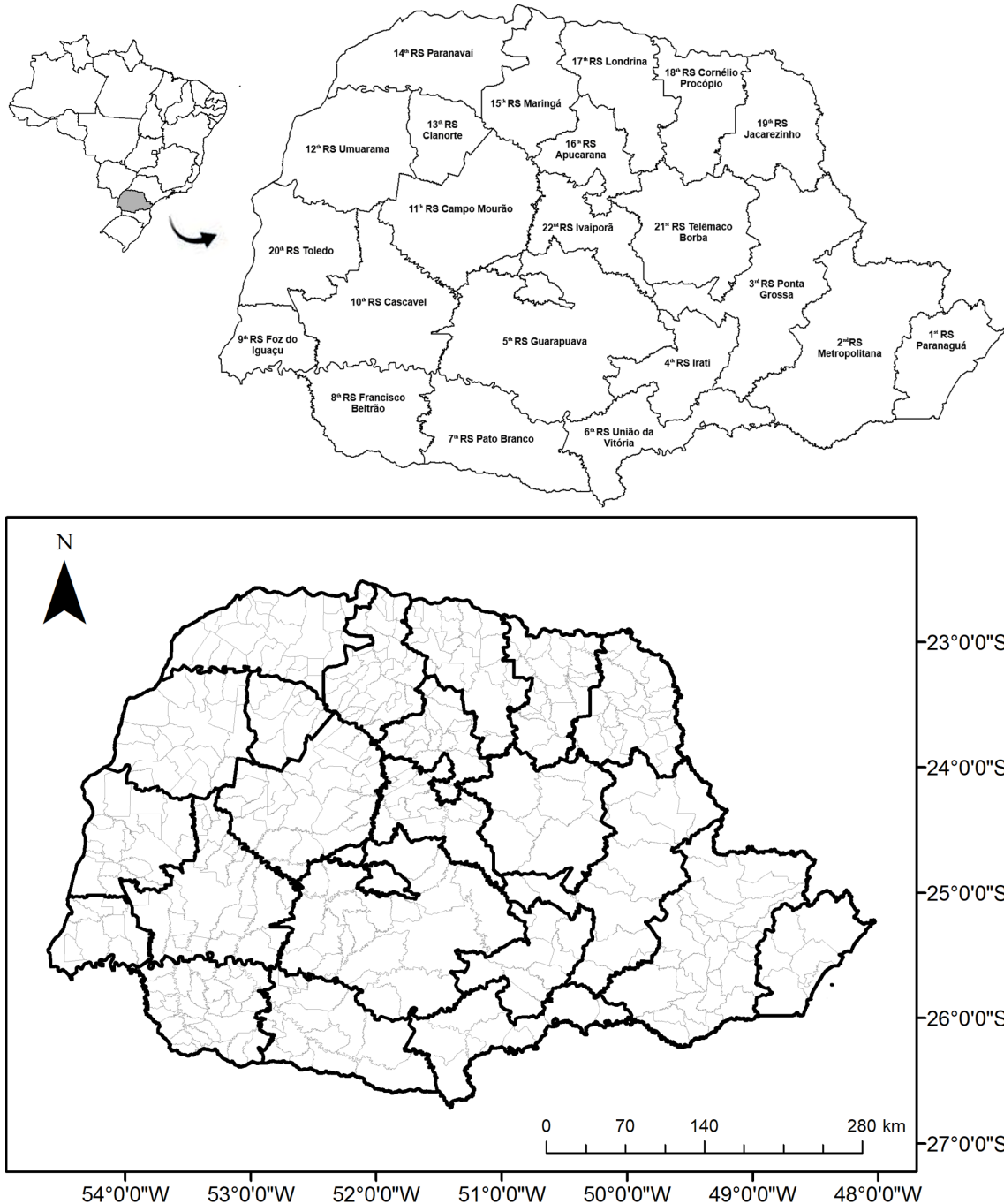


Figure 5. Map of Brazil with the Paraná state highlighted in grey, with all 22 Regional Centers of Health (RS). Municipal boundaries are displayed below with the RS locations.

1<sup>st</sup> and 6<sup>th</sup> RS (Fig. 15). Another widely distributed species is *Vitalius sorocabae*, but it is absent in the 1<sup>st</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 12<sup>th</sup>, and 13<sup>th</sup> RS (Fig. 18).

In time-series graphs over the last decade for all mygaleomorph species in the state of Paraná, there were more males than females on a monthly basis. Males

have a much higher incidence of interaction with humans because they wander in search of females during the mating season. Males occurred mainly between February and May,

compared to females, which apparently mature later, and are more frequently sampled between March and November each year (Figs 19–28).

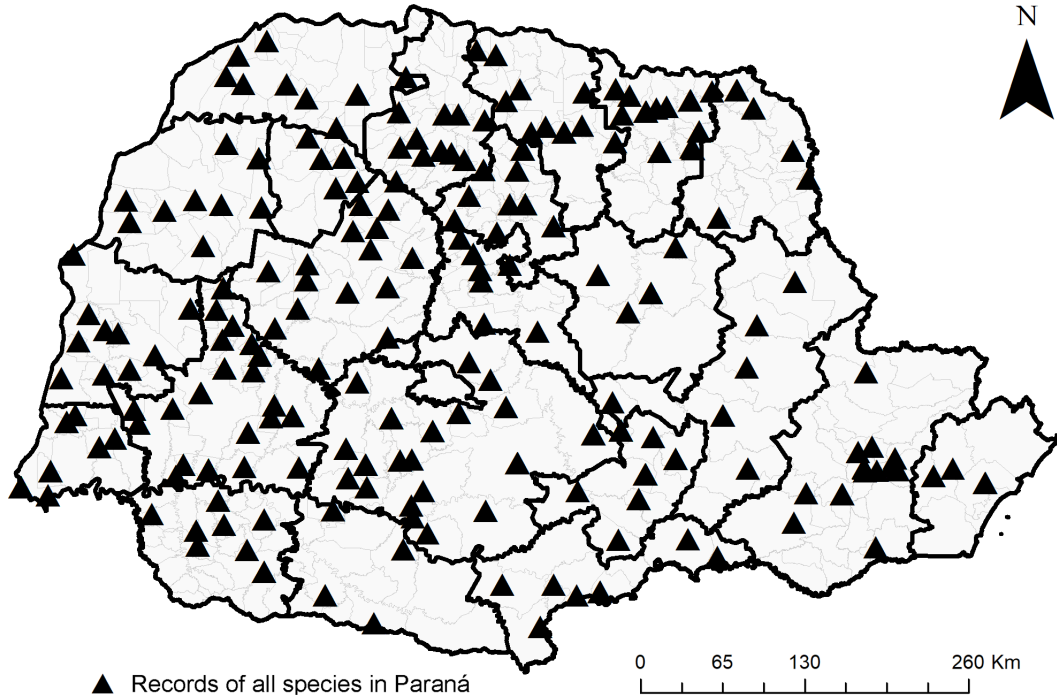
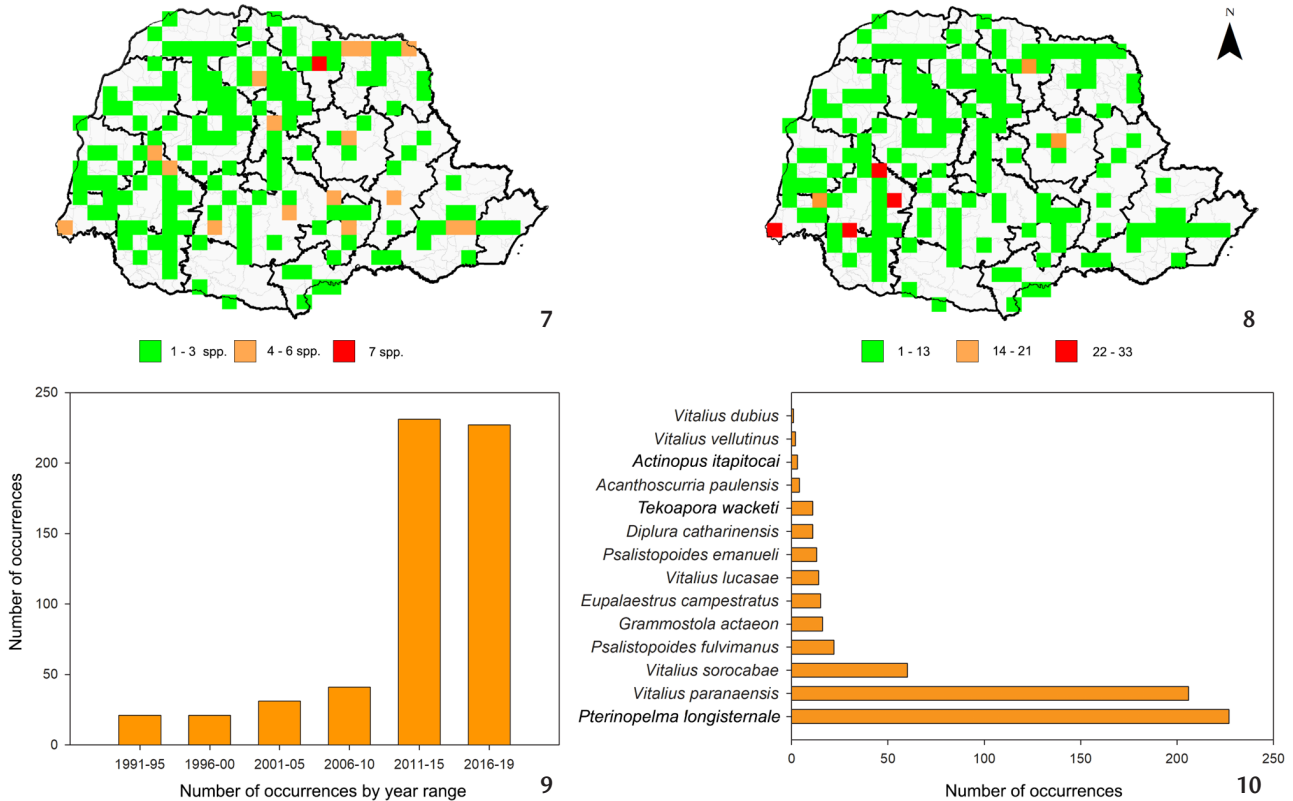


Figure 6. Map with the distribution records of Mygalomorphae species in the state of Paraná compiled from the “Coleção Aracnológica” of SESA and historical records.

Table 1. List of sampled species and occurrences by Regional Centers of Health in the state of Paraná, Brazil.

Species	Regional Centers of Health																						
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>	14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>	17 <sup>th</sup>	18 <sup>th</sup>	19 <sup>th</sup>	20 <sup>th</sup>	21 <sup>st</sup>	22 <sup>nd</sup>	
<b>Actinopodidae</b>																							
<i>Actinopus itapitocai</i> Miglio, Pérez-Miles & Bonaldo, 2020		X																					
<b>Dipluridae</b>																							
<i>Diplura catharinensis</i> (Mello-Leitão, 1927)		X		X												X	X		X			X	
<b>Pycnothelidae</b>																							
<i>Psalistopoides emanueli</i> Lucas & Indicatti, 2006					X					X	X		X		X	X	X		X		X	X	
<i>Psalistopoides fulvimanus</i> Mello-Leitão, 1934						X				X					X	X	X	X		X	X	X	
<b>Theraphosidae</b>																							
<i>Acanthoscurria paulensis</i> Mello-Leitão, 1923		X	X									X											
<i>Eupalaestrus campestratus</i> (Simon, 1891)				X	X	X	X	X		X	X				X							X	
<i>Grammostola actaeon</i> (Pocock, 1903)	X	X	X	X		X		X															
<i>Pterinopelma longisternale</i> (Bertani, 2001)		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Tekoapora wacketi</i> (Mello-Leitão, 1923)	X	X							X							X	X						
<i>Vitalius dubius</i> (Mello-Leitão, 1923)					X																		
<i>Vitalius lucasae</i> Bertani, 2001	X	X	X	X						X													
<i>Vitalius paranaensis</i> Bertani, 2001		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<i>Vitalius sorocabae</i> (Mello-Leitão, 1923)		X	X	X	X			X	X	X	X			X	X	X	X	X	X	X	X	X	
<i>Vitalius vellutinus</i> (Mello-Leitão, 1923)					X													X					



Figures 7–10. Relation of Mygalomorphae species in Paraná: (7) map with the species richness; (8) map with the number of occurrences of species; (9) relation of the number of occurrences of species per year; (10) relation of the number of occurrences by species.

### Species list

#### Araneae Clerck, 1757

#### Mygalomorphae Pocock, 1892

#### Actinopodidae Simon, 1892

#### *Actinopus itapitocai* Miglio, Pérez-Miles & Bonaldo, 2020

Figs 2, 11

*Actinopus itapitocai* Miglio et al., 2020: 89, figs 4C, 5D, F, 8B, 79A–F, 80A–D, 81A–F, 82A–D, 83A–D.

Historical records. PARANÁ: Curitiba (25°25'S; 49°6'W), ix.1946, Goffergé leg. (Miglio et al. 2020).

New records. PARANÁ: Pinhais (25°26'41"S; 49°11'33"W), 02.ix.2004, B. Camargo leg., 1 female (SESA); 10.iii.2011, V. de S. Oliveira leg., 1 female (IBSP 303190).

#### Dipluridae Simon, 1889

#### *Diplura catharinensis* (Mello-Leitão, 1927)

Figs 1, 12

*Pseudohermachura catharinensis* Mello-Leitão, 1927: 402.

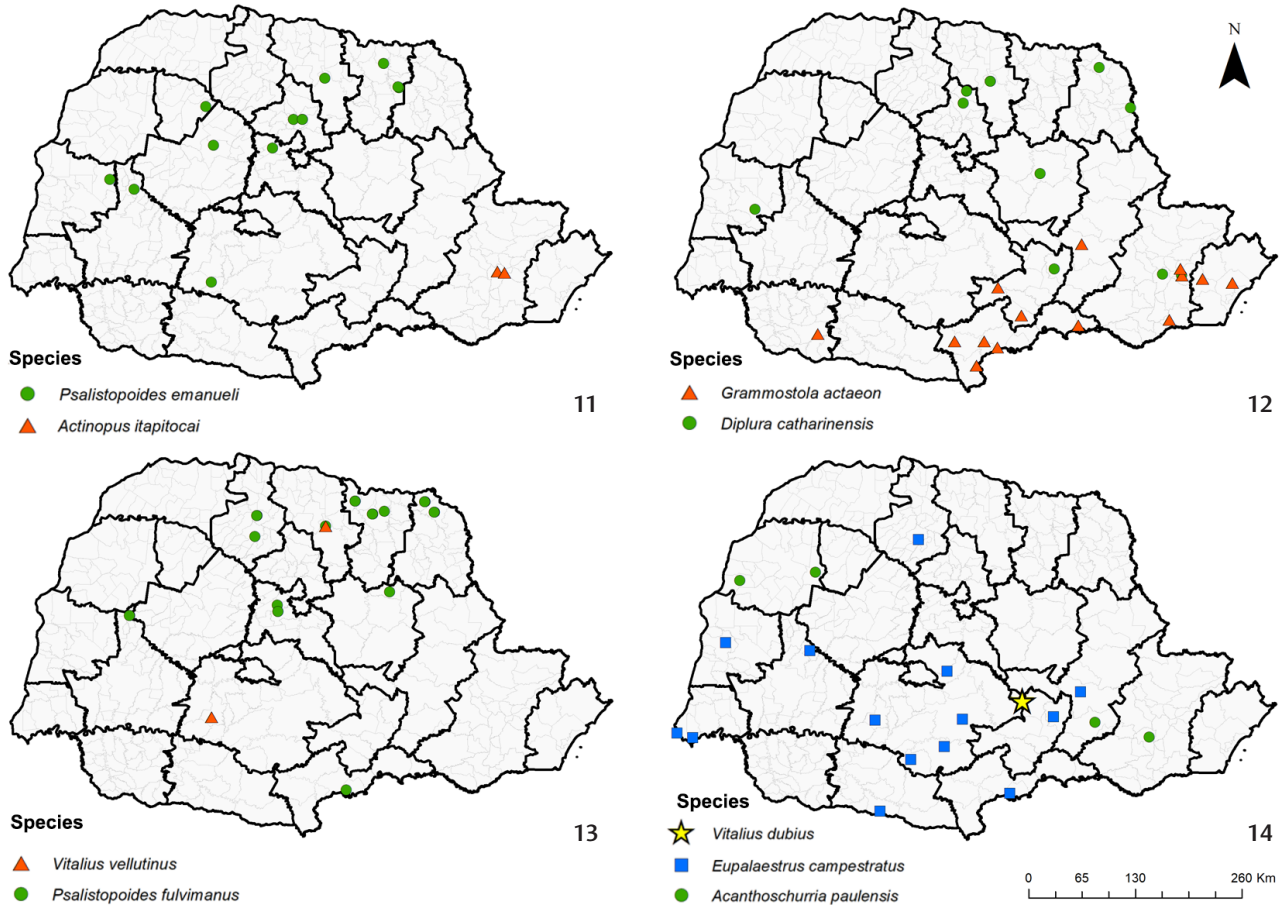
*Prosharmonicon maculatum*: Mello-Leitão, 1938: 313; 1947: 231.

*Harmonicon catharinensis* Bücherl, 1962: 261; Pedroso et al., 2018: 69 (Syn.).

*Diplura catharinensis*: Pedroso et al., 2018: 69.

Historical records. PARANÁ: Curitiba, Barigui (25°25'40"S; 49°16'23"W); Piraquara, Florestal (25°26'30"S; 49°03'48"W); Teixeira Soares, Rio d'Areia (25°22'06"S; 50°27'38"W) (Mello-Leitão 1947).

New records. PARANÁ: Telêmaco Borba (24°19'26"S; 50°36'57"W), Parque Limeira, 07.v.1996, E. Mustefaga leg., 1 male (SESA); Jacarezinho (23°9'39"S; 49°58'8"W), 11.x.2004, SAP leg., 2 females (IBSP 303197); Toledo (24°42'50"S; 53°44'34"W), Jardim Concórdia, 21.v.2013, Airton col., 1 male (IBSP 303196); Londrina (23°18'36"S; 51°9'46"W), Sítio Cachoeira, Granja Estrada Canaã, Distrito Maravilha, 22.iii.2018, A.S. Maff leg., 1 male (SESA); Londrina (23°18'36"S; 51°9'46"W); Sítio Santa Helena, Distrito Warta, 01.vii.2019, T. da S. Francioli leg., 1 male (SESA); Apucarana (23°33'3"S; 51°27'39"W), Parque Bela Vista, 06.vi.2018, T. Carneiro leg., 1 male (IBSP 303194); Arapongas (23°25'8"S; 51°25'26"W), Jar-



Figures 11–14. Distribution maps: (11) *Psalistopoides emanueli* (Pycnothelidae) and *Actinopus itapitocai* (Actinopodidae); (12) *Grammostola actaeon* (Theraphosidae) and *Diplura catharinensis* (Dipluridae); (13) *Vitalius vellutinus* (Theraphosidae) and *Psalistopoides fulvimanus* (Pycnothelidae); (14) *Vitalius dubius*, *Eupalaestrus campestratus* and *Acanthoscurria paulensis* (Theraphosidae).

dim Imperial, 19.iii.2019, Glauci leg., 1 female (IBSP 303193); Salto do Itararé (23°36'3"S; 49°37'33"W), Marimbondo, 17.vi.2019, G.T. de Moura leg., 1 male (IBSP 303195).

**Pycnothelidae Chamberlin, 1917**

*Psalistopoides emanueli* Lucas & Indicatti, 2006

Fig. 11

*Psalistopoides emanueli* Lucas & Indicatti, 2006: 548, figs 4–6.

Historical record. PARANÁ: Ribeirão do Pinhal (23°24'27"S; 50°21'24"W) (Lucas and Indicatti 2006).

New records. PARANÁ: Nova Aurora (24°31'44"S; 53°15'21"W), Jardim Nova Aurora, 14.v.2015, Isabel leg., 1 male (IBSP 303201); 14.v.2015, no leg., 1 male (IBSP 303210); Jussara (23°37'15"S; 52°28'08"W), 18.xi.2015, L. Gotardo leg., 1 male

(IBSP 303213); Campo Mourão (24°02'45"S; 52°22'58"W), 08.i.2016, V. S. de Oliveira leg., 1 male (IBSP 303202); Santa Mariana (23°09'03"S; 50°31'08"W), Santa Rita, 26.x.2016, A. de Matos leg., 2 males (IBSP 303199); 27.x.2016, A. de Matos leg., 1 male (IBSP 303212); 30.xi.2016, A. de Matos leg., 1 male (IBSP 303200); Rio Bom (23°45'43"S; 51°24'39"W), 15.vi.2018, Pronto Atendimento Municipal leg., 1 male (SESA); 18.vi.2018, Pronto Atendimento Municipal leg., 1 male (SESA); Lunardelli (24°04'44"S; 51°44'16"W), 07.viii.2018, J. de S. Cavalcante leg., 1 male (IBSP 303203); Novo Itacolomi (23°45'50"S; 51°30'25"W), 25.ix.2018, E. Lameira leg., 1 male (IBSP 303208); Assis Chateaubriand (24°25'12"S; 53°31'15"W), Jardim América II, 31.x.2018, Cake House leg., 1 male (IBSP 303209); Porto Barreiro (25°32'49"S; 52°24'28"W), 22.iv.2019, A. C. de Oliveira leg., 1 male (IBSP 303204); Londrina (23°18'36"S; 51°09'46"W),

Chácara Grilo, Povoado Grilo, 02.viii.2019, Dirceu leg., 1 male (IBSP 303205); Rio Bom (23°45'43"S; 51°24'39"W), 06.vi.2019, Pronto Atendimento Municipal leg., 1 male (IBSP 303206); 05.vi.2019, Pronto Atendimento Municipal leg., 1 male (IBSP 303207); Distrito Maravilha, Fazenda Belarissa, 05.vi.2019, P. Nunes leg., 1 male (SESA); Maringá (23°25'30"S; 51°56'20"W), 08.ix.2015, Escola Municipal Professor José Marchesini leg., 2 imm. (IBSP 303211).

*Psalistopoides fulvimanus* Mello-Leitão, 1934

Fig. 13

*Psalistopoides fulvimanus* Mello-Leitão, 1934: 404, figs 3–4; Lucas & Bücherl, 1973: 240, fig. 2; Lucas & Indicatti, 2006: 548, figs 1–3 (Transf. from *Pselligmus*).  
*Pselligmus fulvimanus*: Raven, 1985: 107, figs 148–156; Brescovit et al., 2023 (Descr. female).

Historical records. PARANÁ: Jacarezinho (23°09'38"S; 49°58'10"W); Curiúva, Fazenda Figueira (24°01'57"S; 50°27'30"W) (Lucas & Indicatti 2006); Formosa do Oeste (24°17'34"S; 53°18'46"W); Cambará (23°02'45"S; 50°04'26"W); Cornélio Procópio (23°10'51"S; 50°38'49"W); Ângulo (23°11'42"S; 51°54'54"W); Sertaneja (23°02'13"S; 50°50'16"W); Ivaiporã (24°14'52"S; 51°41'6"W) (Brescovit et al. 2023).

New records. PARANÁ: Paula Freitas (26°12'28"S; 50°56'16"W), Rondinha, 26.iv.2011, S. Kovaleski leg., 1 male (IBSP 303217); Santa Mariana (23°09'03"S; 50°31'08"W), Santa Rita, 04.xi.2016, A. de Matos leg., 1 male (SESA); Londrina (23°18'36"S; 51°9'46"W), Fazenda Belarissa, Distrito Maravilha (23°27'39.1"S; 51°00'04.6"W), 17.vi.2019, R. M. DE Lima leg., 1 male (SESA).

Theraphosidae Thorell, 1869

*Acanthoscurria paulensis* Mello-Leitão, 1923

Fig. 14

*Acanthoscurria paulensis* Mello-Leitão, 1923: 304, figs 86–88, 178–179; Lucas et al., 2010: 564, figs 1–9.  
*Acanthoscurria atrox* Vellard, 1924: 143, pl. 8, fig. 35; Lucas et al., 2010: 564 (Syn.).  
*Acanthoscurria guaxupe* Piza, 1972: 161, fig. 1; Lucas et al., 2010: 564 (Syn.).

Historical records. PARANÁ: Palmeira (25°25'44"S; 50°00'21"W); Araucária (25°35'34"S; 49°24'36"W) (Lucas et al. 2010).

New records. PARANÁ: Altônia (23°52'26"S; 53°54'7"W), Centro, 04.v.2016, M.I. de S. da Silva leg., 1 male (SESA); Jardim Paraíso, 28.v.2019, A. A. Ferreira leg., 1 male (IBSP 302963); Cruzeiro do Oeste (23°47'6"S; 53°04'22"W), Jardim Cruzeiro, 11.iv.2016, J. de S. Xavier leg., 1 male (IBSP 302962).

*Eupalaestrus campestratus* (Simon, 1891)

Fig. 14

*Eurypelma campestratum*: Simon, 1891: 311.  
*Lasiodora campestrata*: Simon, 1897: 1.  
*Eupalaestrus pugilator* Pocock, 1901: 547; Pérez-Miles, 1992: 30 (Syn.).  
*Eupalaestrus campestratus*: Simon, 1903: 939.  
*Eupalaestrus tennuitarsus* Bücherl, 1947: 301, pl. 2–3; Pérez-Miles, 1992: 30 (Syn.).  
*Eupalaestrus guyanus* Gabriel, 2009: 87, fig. 1; Gabriel, 2020: 426 (Syn.).

Historical records. PARANÁ: Paula Freitas (26°12'30"S; 50°56'17"W); Laranjeiras do Sul (25°24'29"S; 52°24'59"W); Guarapuava (25°23'43"S; 51°27'29"W); Teixeira Soares (25°22'06"S; 50°27'38"W); Ponta Grossa (25°05'42"S; 50°09'43"W); Marechal Cândido Rondon (24°33'22"S; 54°03'24"W); Maringá (23°25'31"S; 51°56'19"W); Foz do Iguaçu, Parque Nacional do Iguaçu (25°36'00"S; 54°25'00"W); Usina Hidrelétrica de Itaipu (25°32'52"S; 54°35'17"W) (Bertani 2001).

New records. PARANÁ: Pinhão (25°41'45"S; 51°39'36"W), 15.iii.1994, F. Amaral leg., 1 male (IBSP 302959); Clevelândia (26°24'19"S; 52°21'47"W), 08.iv.2013, D. A. Vieira leg., 1 female (SESA); Reserva do Iguaçu (25°50'20"S; 52°01'40"W), Fazenda Wolbert, 14.ii.2014, E. A. Oliveira leg., 1 male (SESA); Boa Ventura de São Roque (24°52'8"S; 51°37'40"W), 18.vi.2014, V. Dalzotto leg., 1 male (IBSP 302961); Teixeira Soares, São Joaquim (25°22'4"S; 50°27'39"W), 07.iii.2016, O. Oestraich leg., 1 female (IBSP 302960); Anahy (24°38'38"S; 53°08'06"W), 25.iv.2016, J. de Oliveira leg., 1 male (SESA).

*Grammostola actaeon* (Pocock, 1903)

Fig. 12

*Citharoscelus actaeon* Pocock, 1903: 99.  
*Grammostola brevimetatarsis* Strand, 1907: 33; Bücherl, 1951: 119 (Syn.).  
*Grammostola actaeon*: Petrunkevitch, 1911: 67.

Historical records. PARANÁ: unknown exact location (Mello-Leitão 1921, 1941); Mallet (25°52'40"S; 50°49'15"W) (Bertani 2000).

New records. PARANÁ: Ponta Grossa (25°05'42"S; 50°09'43"W), 16.vi.1993, 3° RS Ponta Grossa leg., 1 male (IBSP 302985); Piraquara (25°26'31"S; 49°03'46"W), 30.ix.1996, Escola C. Q. Filho leg., 1 male (IBSP 302990); Morretes (25°28'37"S; 48°50'02"W), Serra do Mar, no data, C. Jordão leg., 1 female (IBSP 303001); Francisco Beltrão (26°04'51"S; 53°03'18"W), Bom Jesus, 16.iii.1998, A. Pilz leg., 1 male (IBSP 302994); Tijucas do Sul (25°55'40"S; 49°11'56"W), 04.x.2000, J. da Roça leg., 1 male (IBSP 302991); Paranaguá, Ilha do Mel, Praia de Encantados (25°30'42"S;



48° 20' 20" W), 04.iii.2002, G. Faição leg., 1 male (IBSP 302999); Morretes (25° 28' 37" S; 48° 50' 02" W), no data, no leg., 1 male (IBSP 302995); Quatro Barras (25° 21' 57" S; 49° 04' 37" W); no data, J. Sousa leg., 1 female (IBSP 302989); Bituruna (26° 09' 39" S; 51° 33' 10" W); Jardim Andrea, 31.viii.2010, J. de J. dos Santos leg., 1 female (IBSP 303000); Linha Jacutinga, 26.x.2011, J. dos S. Rodrigues leg., 1 male (IBSP 302987); União da Vitória (26° 13' 48" S; 51° 05' 09" W), Colonia Correntes, Vila Zulmira, 14.iii.2011, Ass. Beneficiente Profeta Daniel leg., 1 female (IBSP 302997); Porto Vitória (26° 09' 39" S; 51° 13' 55" W), Anta Gorda, 21.iv.2013, A. da C. M. Souza leg., 1 female (IBSP 303003); BR 153, 05.v.2014, A. da Cruz leg., 1 male (IBSP 302992); General Carneiro (26° 25' 40" S; 51° 18' 57" W), Monte Castelo, 16.ix.2014, Chalé do Produtor leg., 1 male (IBSP 302996); Estrada do Pizzatto, 21.xi.2016, Pizzatto leg., 1 female (IBSP 302988); Antônio Olinto (25° 59' 09" S; 50° 11' 49" W), Butiá dos Colaço, 13.vi.2016, C. Polat leg., 1 male (IBSP 302986); Inácio Martins (25° 34' 15" S; 51° 04' 44" W), Estrada Principal, 07.xi.2017, G. Komar leg., 1 male (IBSP 302993); Cachoeira, 28.i.2019, S. do C. Gravronski leg., 1 female (IBSP 303002); Rio de Areia, 22.iv.2019, L.L. de Quadros leg., 1 female (IBSP 302998).

### *Pterinopelma longisternale* (Bertani, 2001)

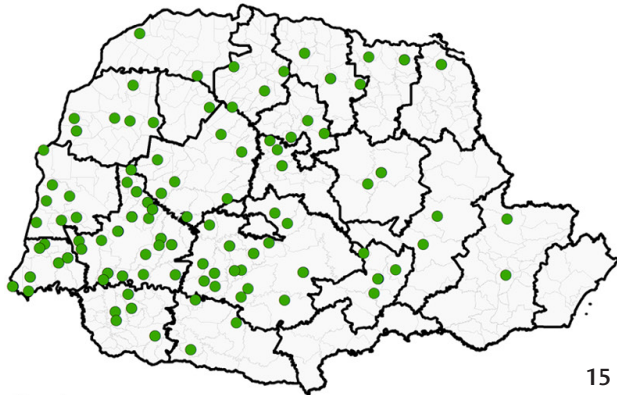
Fig. 15

*Vitalius longisternalis* Bertani, 2001: 297, figs 21, 87–90, 181.  
*Pterinopelma longisternalis*: Galletti-Lima et al., 2023: 08.  
*Pterinopelma longisternale*: World Spider Catalog, 2023.

Historical records. PARANÁ: Pato Branco (26° 13' 43" S; 52° 40' 14" W); Cândói (25° 39' 45" S; 52° 07' 35" W); Irati (25° 28' 02" S; 50° 39' 04" W); Curitiba (25° 25' 40" S; 49° 16' 23" W); Guarapuava (25° 23' 43" S; 51° 27' 29" W); Teixeira Soares (25° 22' 06" S; 50° 27' 38" W); Ponta Grossa (25° 05' 42" S; 50° 09' 43" W); Cascavel (24° 57' 21" S; 53° 27' 19" W); Castro (24° 47' 28" S; 50° 00' 43" W); Pitanga (24° 45' 26" S; 51° 45' 41" W); Ivaiporã (24° 14' 52" S; 51° 41' 05" W); Mangueirinha (25° 56' 28" S; 52° 10' 32" W); Foz do Iguaçu, Parque Nacional do Iguaçu (25° 36' 00" S; 54° 25' 00" W); Usina Hidrelétrica Foz da Areia (25° 32' 52" S; 54° 35' 17" W) (Bertani 2001); Altônia (23° 52' 26" S; 53° 54' 07" W); Andirá (23° 03' 03" S; 50° 13' 44" W); Cruzeiro do Iguaçu, Foz do Chopim, Usina Hidrelétrica Salto Caxias (25° 32' 36" S; 53° 29' 48" W); Cruzeiro do Oeste (23° 47' 06" S; 53° 04' 22" W); Fernandes Pinheiro, Floresta Nacional de Iratí (24° 30' S; 50° 0' W); Pinhão (25° 41' 45" S; 51° 39' 36" W); Três Barras do Paraná (25° 25' 08" S; 53° 10' 51" W) (Galletti-Lima et al. 2023).

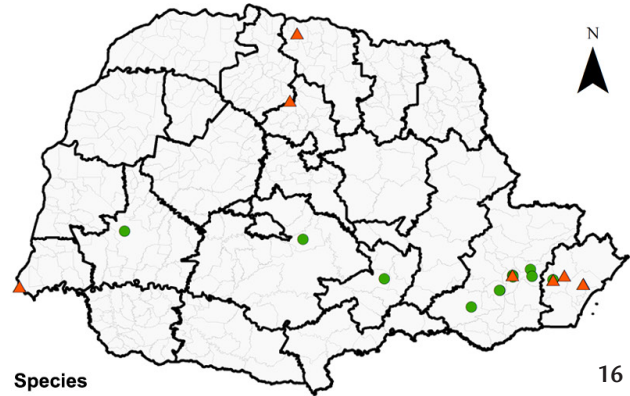
New records. PARANÁ: Salto do Lontra (25° 47' 2" S; 53° 18' 32" W), 05.iii.1994, S.M.V.S. 8° RS Francisco Beltrão leg.,

1 female (IBSP 303060); 20.iii.1995, Vig. Sanitária de Salto do Lontra leg., 1 female (SESA); Irati (25° 28' 01" S; 50° 39' 03" W), 25.iii.1994, J.M. Ferreira leg., 1 male (SESA); 04.xii.1999, no leg., 1 female (SESA); 08.iii.2004, L.X. de Almeida leg., 1 male (IBSP 303785); Rio Bonito, 25.x.2004, F. de Freitas leg., 1 female (SESA); Francisco Beltrão (26° 04' 51" S; 53° 03' 18" W), 25.iii.1994, Vigilância Sanitária leg., 1 male (SESA); Novo Mundo, 27.iii.2013, CMEI - Mundo Encantado leg., 1 male (SESA); Jardim Itatiaia, 27.iii.2013, M. Macedo leg., 1 male (SESA); Santa Izabel do Oeste (25° 49' 15" S; 53° 29' 02" W); 27.i.1994, SMVS 8ª R.S. Fco Beltrão leg., 1 female (SESA); 18.iv.1995, D. Moraes leg., 1 female (SESA); Astorga (23° 13' 58" S; 51° 39' 57" W), 30.ix.1992, no leg., 1 male (SESA); Nova Aurora (24° 31' 44" S; 53° 15' 21" W), 06.v.1997, Vigilância Sanitária leg., 1 male (SESA); no data, Equipe de Endemias leg., 1 female (IBSP 303181); Jardim das Oliveiras, 08.viii.2011, E.R. Oliveira leg., 1 female (SESA); Jardim Nova Aurora, 07.iv.2014, D.T. da Silva leg., 1 male (SESA); Jacarezinho (23° 09' 39" S; 49° 58' 08" W), 01.iii.1997, E.M. da Silva leg., 1 male (SESA); 10.xi.1999, M. E. Silva leg., 1 female (SESA); Guaraniaçu (25° 06' 03" S; 52° 52' 40" W), 02.xii.2001, V. França leg., 1 female (SESA); 12.viii.2004, D.D. Dudeck leg., 1 female (SESA); 31.i.2005, E. Dollo leg., 1 female (IBSP 303065); 01.vii.2002, no leg., 1 female (IBSP 303064); 16.iv.2015, Escola Professor Joaquim leg., 1 female (IBSP 303167); 19.v.2016, L.M. Junior leg., 1 male (SESA); 13.iv.2017, D.K. Soster leg., 1 male (SESA); 28.iv.2017, J. Rodrigues leg., 1 male (SESA); 25.v.2017, Marcia leg., 1 male (SESA); 21.v.2017, M. Liber leg., 1 male (IBSP 303071); 01.vi.2018, Maria leg., 1 male (IBSP 303796); Jardim Real, 12.iv.2017, F.J. Diniz leg., 1 male (IBSP 303230); 11.v.2017, F.J. Diniz leg., 1 male (SESA); Bairro Cazella, 25.vi.2018, C.R. Biavatti leg., 1 female (SESA); Telêmaco Borba (24° 19' 26" S; 50° 36' 57" W), 04.iii.2003, A.R. Meireles leg., 1 male (SESA); 13.xi.2003, D.M. Santos leg., 1 female (SESA); Cem Casas, 20.ii.2019, H. de S. Lemes leg., 1 male (SESA); Londrina (23° 18' 36" S; 51° 09' 46" W); Cambé, 16.vi.2004, L.A. Pacheco leg., 1 male 1 female (SESA); Pato Branco (26° 13' 44" S; 52° 40' 15" W); 15.vii.2004, M. Otoni leg., 1 female (SESA); Matelândia (25° 14' 27" S; 53° 59' 45" W), 29.v.2006, V. Soares leg., 1 female (IBSP 303070); 04.v.2014, E.V.M. Martins leg., 1 female (IBSP 303076); Jardim Tropical, 18.iii.2015, PROFAN leg., 1 male (IBSP 303081); 03.vi.2019, Luiz Gonzaga leg., 1 male (SESA); Vila Nova, 14.v.2015, B. C. Eich leg., 1 male (IBSP 303168); Pato Bragado (24° 37' 33" S; 54° 13' 30" W), 12.xii.2005, no leg., 1 male (IBSP 303165); Bandeirantes (23° 6' 36" S; 50° 22' 04" W), 27.iii.2007, L. Pimenta leg., 1 male (IBSP 303238), 02.ii.2017, R. Marqui leg., 1 female (IBSP 303246); Londrina (23° 18' 36" S; 51° 9' 46" W), Vila



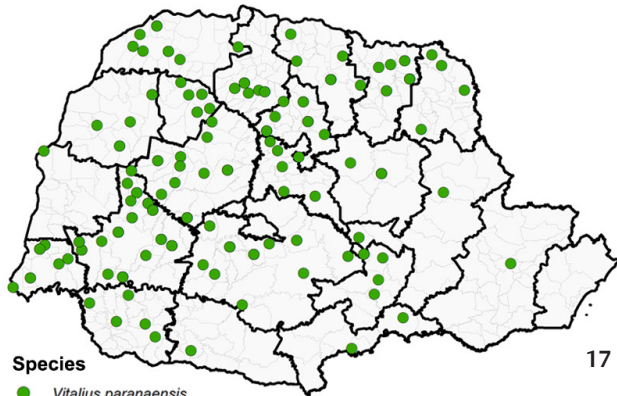
**Species**  
● *Pterinopelma longisternale*

15



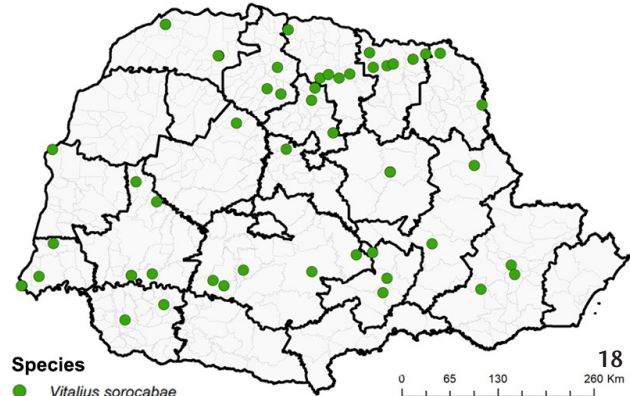
**Species**  
▲ *Tekoapora wacketi*  
● *Vitalius lucasae*

16



**Species**  
● *Vitalius paranaensis*

17



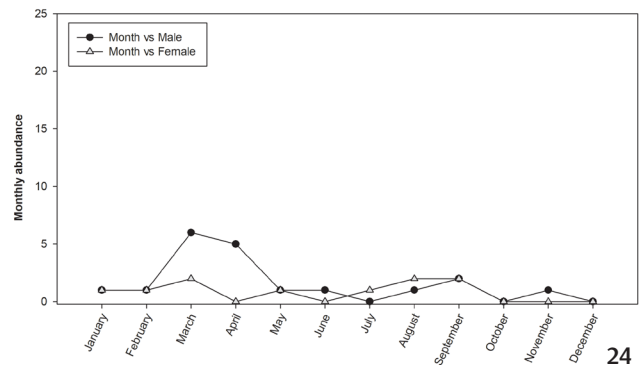
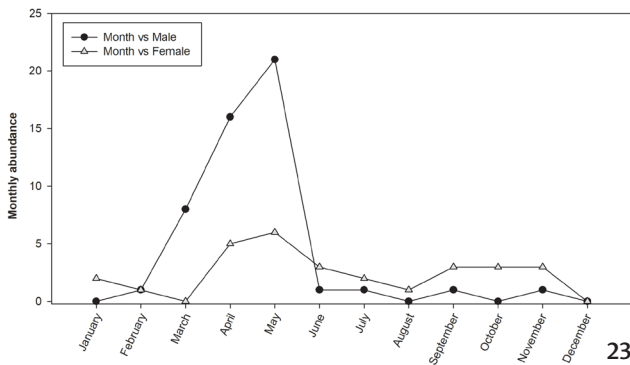
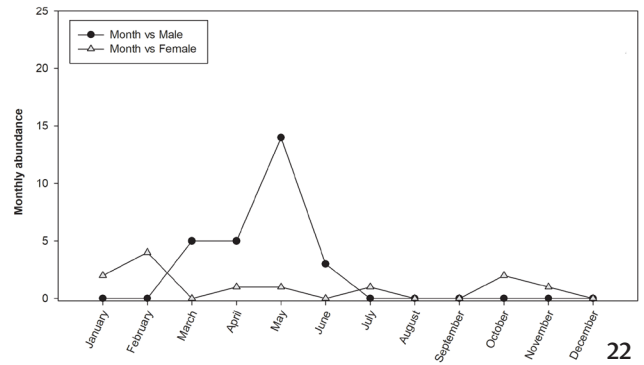
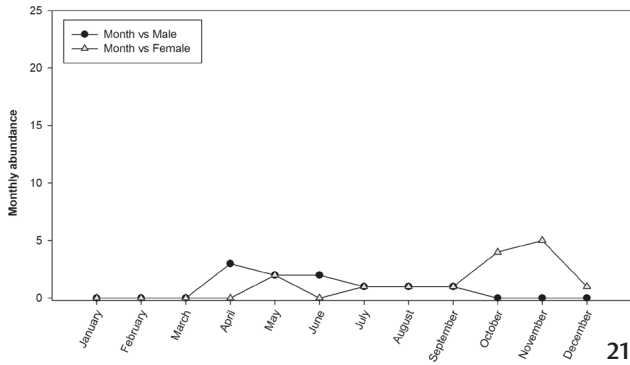
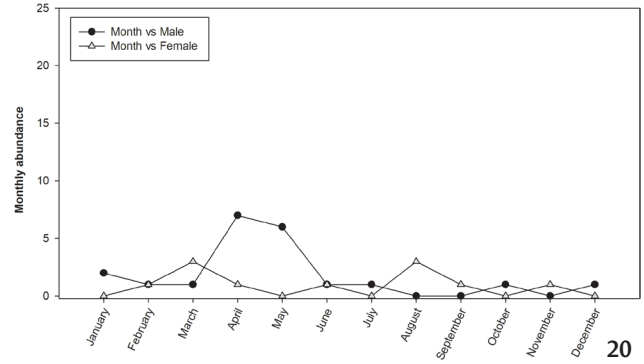
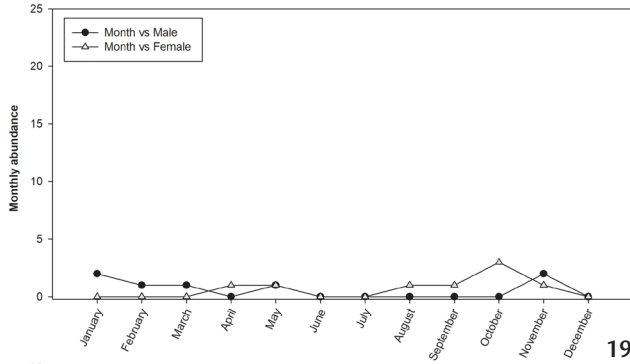
**Species**  
● *Vitalius sorocabae*

18

Figures 15–18. Distribution maps: (15) *Pterinopelma longisternale* (Theraphosidae); (16) *Tekoapora wacketi* and *Vitalius lucasae* (Theraphosidae); (17) *Vitalius paranaensis* (Theraphosidae); (18) *Vitalius sorocabae* (Theraphosidae).

Ricardo, 16.x.2007, C. Brito leg., 1 female (SESA); Assaí (23°22'22"S; 50°50'27"W), 17.iii.2009, S. Ferreira leg., 1 female (IBSP 303801); Prado Ferreira (23°02'20"S; 51°26'31"W), 08.i.2010, P. Moura leg., 1 male (IBSP 303819); São Pedro do Paraná (22°49'26"S; 53°13'12"W), Sítio São João, 01.iii.2010, P. Milare leg., 1 male (IBSP 303069); Jussara (23°37'15"S; 52°28'08"W), 13.ix.2010, Equipe Dengue leg., 1 female (IBSP 303250); Anahy (24°38'38"S; 53°08'06"W), 07.ii.2011, D. Pedroso leg., 1 female (IBSP 303806); 01.iv.2013, E. Felipe leg., 1 male (SESA); 19.iv.2013, Z. de Oliveira leg., 1 male (SESA); 07.v.2015, Loja da Silvana Presentes leg., 1 male (IBSP 303164); 17.v.2015, J. Caroline leg., 1 male (IBSP 303172); 26.v.2015, A.T. Padua leg., 1 male (IBSP 303184); 06.vii.2015, G. Bergamim leg., 1 male (SESA); 05.viii.2014, L. Guse leg., 1 female (IBSP 303062); 22.iv.2015, Centro de Saúde leg., 1 female (IBSP 303176); 22.ix.2015, Prefeitura Municipal leg., 1 female (SESA); 13.xi.2015, G.F. Dameda leg., 1 female (IBSP 303066);

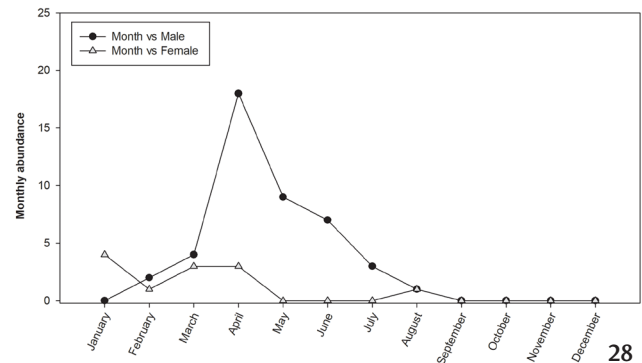
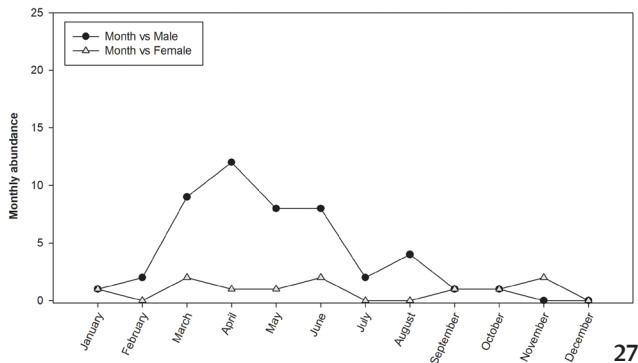
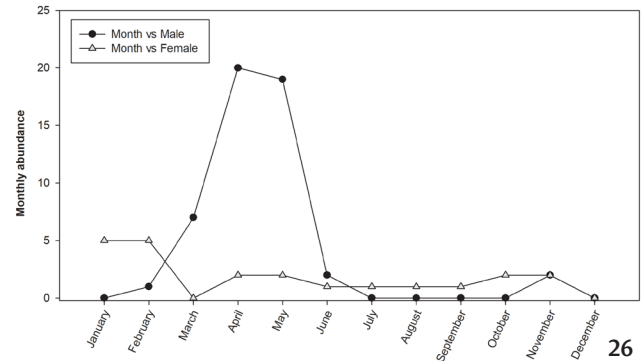
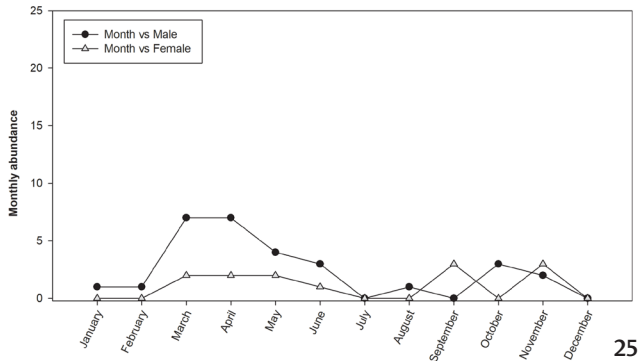
22.iv.2016, J. Vauna leg., 1 male (SESA); 19.vi.2016, J.M. Rotta leg., 1 male (SESA); Nova Prata do Iguaçu (25°37'58"S; 53°20'49"W), 20.iv.2012, L.K. Cardoso leg., 1 female (SESA); Vorazinho, 25.iv.2011, C. Weber leg., 1 male (SESA); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 24.iv.2011, N. Palma leg., 1 male (SESA); 29.iv.2011, E.F. dos Santos leg., 1 male (SESA); 17.x.2012, R. Nonato leg., 1 female (SESA); 01.xi.2013, I.Z. Freitas leg., 1 female (SESA); Céu Azul (25°8'49"S; 53°50'56"W), Parque Verde, 25.iv.2011, S. Alves leg., 1 male (SESA); Bairro União, 16.v.2011, N. Caetano leg., 1 male (SESA); 24.iv.2013, V.J. Francheschini leg., 1 male (SESA); 16.v.2019, CEMEI Santa Clara leg., 1 male (SESA); 22.v.2013, V. Franceschini leg., 1 female (SESA); Chacara da APAE, 24.v.2011, D.L. Otica leg., 1 male (IBSP 303179); Jardim Carombé, 11.vii.2013, V. Franceschini leg., 1 male (SESA); São Cristóvão, 16.v.2019, L. Freire leg., 1 male (SESA); Rebouças (25°37'15"S; 50°41'34"W), 29.iv.2011, V. Cabral leg., 1 male



Figures 19–24. Monthly records of males and females of Mygalomorphae species in the state of Paraná in the years: (19) 2010, (20) 2011, (21) 2012, (22) 2013, (23) 2014, and (24) 2015.

(SESA); Santa Tereza do Oeste (25°03'7"S; 53°37'58"W), 27.iv.2011, T.J. Rapas leg., 1 female (SESA); Ubiratã (24°32'42"S; 52°59'16"W), Zona Rural, 06.vi.2011, G.T. de Lima leg., 1 female (SESA); Campina do Simão (25°04'44"S; 51°49'37"W), Escola Municipal Vital Brasil, 26.iii.2012, I.P. Brasil leg., 1 male (SESA); Saudade do Iguazu (25°41'38"S; 52°37'08"W), 19.ix.2011, F. Janescko leg., 1 female (IBSP 303077); 25.iii.2013, L. Rodrigues leg., 1 male (SESA); Virmond (25°22'51"S; 52°11'56"W), 08.xi.2011, O. Donbroski leg., 1 female (IBSP 303067); 17.iii.2016, D. Danilavicius leg., 1 male (SESA); Corbélia (24°47'56"S; 53°18'25"W), 05.viii.2014, D.

Ribeiro leg., 1 male (IBSP 303079); 04.v.2015, M. da Silva leg., 1 female (IBSP 303185); Colonia Nova, 10.iv.2012, A.M.P. Lozowey leg., 1 male (IBSP 303163); 15.x.2013, G. Relly leg., 1 female (SESA); Alvorada do Sol, BR 369, 30.iv.2013, M. Ficanha leg., 1 male (SESA); Vila Rural, 01.v.2018, no leg., 1 male (IBSP 303161); Residencial Berté, 23.v.2017, E. Rupollo leg., 1 female (SESA); Ouro Verde do Piquiri, 30.v.2017, O.A. Liberi leg., 1 male (SESA); Vila Unida, 05.vi.2019, M. Correia leg., 1 male (SESA); Formosa do Oeste (24°17'34"S; 53°18'46"W), 12.v.2012, M. Calvacante leg., 1 male (IBSP 303822); 25.v.2015, D.S. Santana leg., 1 male (IBSP 303171); 11.v.2016, Gilceli leg.,



Figures 25–28. Monthly records of males and females of Mygalomorphae species in the state of Paraná in the years: (25) 2016, (26) 2017, (27) 2018, and (28) 2019.

1 male (SESA); 19.iii.2018, J. Viana leg., 1 female (IBSP 303800); Comunidade Barigui, 10.vi.2012, A.M. Painelli leg., 1 male (IBSP 303809); Laranjeiras do Sul (25°24'28"S; 52°24'57"W), Água Verde, 04.xi.2012, E.C. Becher leg., 1 female (SESA); Nova Laranjeiras (25°18'25"S; 52°32'27"W), Colina Verde, 14.iii.2013, C. de Oliveira leg., 1 male (SESA); São Jorge do Patrocínio (23°44'27"S; 53°55'37"W), Jardim Alvorada, 02.iv.2013, A. Gabiatti leg., 1 male (SESA); Xambrê (23°44'09"S; 53°29'24"W), 02.iv.2013, Creche Municipal de Xambrê leg., 1 male (SESA); São João do Ivaí (23°58'48"S; 51°49'04"W), 21.iii.2013, Secretaria Municipal de Saúde leg., 1 female (SESA); Ivatuba (23°37'08"S; 52°13'15"W), 25.iii.2013, V. Carneiro leg., 1 male (SESA); Santa Terezinha de Itaipu (25°26'49"S; 54°24'03"W), 26.iv.2013, K. Adamante leg., 1 male (SESA); Missal (25°05'31"S; 54°14'52"W), 23.iv.2013, J. Schons leg., 1 male (SESA); 23.iv.2013, J. Schons leg., 1 male (SESA); 23.iv.2013, J. Schons leg., 1 male (SESA); São Francisco, 05.v.2017, V. Lenhard leg., 1 female (SESA); Ouro Verde do Oeste (24°48'18"S; 53°54'10"W), 12.iv.2013, A.C. Américo leg., 1 male (SESA); Ampère (25°54'54"S; 53°28'22"W), Sítio Minas Gerais, 29.iv.2013, M.D. Mollin leg., 1 male (SESA); Rondinha, 26.xi.2014, C.A. Bazanela leg., 1 female (IBSP

303068); Medianeira (25°17'42"S; 54°05'38"W), 28.iv.2013, I. Botassoli leg., 1 male (SESA); Bairro IPE, 06.vi.2013, Elizandra leg., 1 male (SESA); Cerro Azul (24°49'26"S; 49°15'39"W), São Lucas, 03.vi.2013, N.M. dos Santos leg., 1 male (SESA); Porto Barreiro (25°32'49"S; 52°24'28"W), 31.v.2013, A. Marangoni leg., 1 female (SESA); Cantagalo (25°22'26"S; 52°07'33"W), Jardim Santana, 21.viii.2013, V. Maura leg., 1 female (SESA) Vera Cruz do Oeste (25°03'28"S; 53°52'37"W), 20.viii.2013, W.B. da Silva leg., 1 male (SESA); Jardim América, 12.i.2015, E.S. de Melo leg., 1 female (IBSP 303075); Marquinho (25°06'46"S; 52°15'14"W), 16.x.2013, D.M. dos Santos leg., 1 female (SESA); 08.iv.2014, I. de A. Pompeu leg., 1 male (IBSP 303080); 30.i.2017, R. da C. Nunes leg., 1 female (SESA); 23.iii.2017, V.G. de Moraes leg., 1 male (SESA); Espigão Alto do Iguaçu (25°25'26"S; 52°50'09"W), 25.xi.2015, M. Dalcuchi leg., 1 female (SESA); Recanto Feliz, 14.x.2013, Scheila leg., 1 female (SESA); Laranjal (24°53'13"S; 52°28'08"W), 31.iii.2014, S. Trindade leg., 1 male (SESA); Paraíso do Norte (23°16'51"S; 52°36'07"W), Vila Santa Tereza, 31.iii.2014, J. Patrocínio leg., 1 male (IBSP 303074); Santa Terezinha de Itaipu (25°26'49"S; 54°24'03"W), Barro Branco, 19.i.2015, A. Dalmargo leg., 1 female (IBSP 303083); Guaíra (24°04'48"S; 54°15'21"W),

- Jardim Guaíra, 10.iv.2015, G.V. da Silva leg., 1 male (IBSP 303085); Nova Laranjeiras (25°18'25"S; 52°32'27"W), 08.iv.2015, A. de O. Branco leg., 1 male (IBSP 303082); Loteamento Bueno, 05.iv.2016, C. Cavasoto leg., 1 male (SESA); Borrazópolis (23°56'27"S; 51°35'16"W), 15.iv.2015, L. da Silva leg., 1 male (IBSP 303084); Campina do Simão (25°04'44"S; 51°49'37"W), 22.iv.2015, A.M. Mayer leg., 1 male (IBSP 303078); Campo Bonito (25°01'51"S; 52°59'34"W), 04.v.2015, F. Drun leg., 1 male (IBSP 303162); Morada do Sol, 24.iv.2015, A. Moretto leg., 1 male (IBSP 303174); Iguatu (24°43'01"S; 53°05'02"W), 13.iv.2015, A. de Oliveira leg., 1 male (IBSP 303183); 15.iv.2015, J.E. Almerão leg., 1 male (IBSP 303182); 09.v.2015, P.F. do Amaral leg., 1 male (IBSP 303820); 11.v.2015, M.I. Correa leg., 1 male (IBSP 303170); 01.x.2015, C.M.A. Turkot leg., 1 female (SESA); 23.i.2017, P.F. do Amaral leg., 1 female (SESA); 24.iv.2017, R. Colla leg., 1 male (SESA); 22.v.2017, A. de Oliveira leg., 1 male (SESA); 09.x.2017, I. do Amaral leg., 1 female (SESA); 23.iv.2018, R. Colla leg., 1 male (IBSP 303803); 18.v.2018, D. dos Santos leg., 1 male (IBSP 303787); 15.iv.2019, A. Morais leg., 1 male (SESA); 09.v.2019, E. Baldissera leg., 1 male (SESA); 02.v.2019, L.B. Oliveira leg., 1 male (SESA); Santa Lúcia (25°24'25"S; 53°33'57"W), 13.v.2011, J. de Moraes leg., 1 male (SESA); 13.v.2015, Paroquia São Roque leg., 1 male (IBSP 303821); 21.vii.2015, J.J. Cardoso leg., 1 female (SESA); 26.iv.2017, A. Markendorf leg., 1 male (SESA); 28.v.2019, C.A. Gomes leg., 1 male (SESA); São Cristóvão, 13.v.2015, A. Dalazen leg., 1 male (IBSP 303175); 26.v.2015, A. Dallazen leg., 1 male (IBSP 303177); Ubiratã (24°32'42"S; 52°59'16"W), São Vicente, 13.v.2015, L.N. dos Santos leg., 1 male (IBSP 303818); Vila Recife, 07.v.2015, C. Ribeiro leg., 1 male (IBSP 303178); Peabiru (23°54'46"S; 52°20'34"W); 16.vi.2015, A. Rocha leg., 1 female (SESA); Iracema do Oeste (24°25'40"S; 53°21'18"W), 11.xi.2015, M.P. Pardim leg., 1 female (SESA); Goioxim (25°11'42"S; 51°59'34"W), Alto Alegre, 07.xii.2015, L. de O. Florão leg., 1 female (SESA); Bela Vista, 11.iv.2017, L.F. Pelin leg., 1 male (SESA); Jacutinga, 11.iv.2017, K. S. Pedrozo leg., 1 female (SESA); Alto dos Milagres, 28.v.2019, D. Britts leg., 1 male (SESA); Mauá da Serra (23°54'03"S; 51°13'44"W), Jardim São Luiz, 21.iii.2016, L.C. da Silva leg., 1 male (SESA); Ouro Verde do Oeste (24°48'18"S; 53°54'10"W), 01.iv.2016, A.C. Américo leg., 1 male (SESA); Leopólis (23°04'48"S; 50°45'03"W); 14.iii.2016, J.C. Massaro leg., 1 male (SESA); Laranjeiras do Sul (25°24'28"S; 52°24'57"W); 04.v.2016, L. Roth leg., 1 female 1 imm. (SESA); Guamiranga (25°11'27"S; 50°48'18"W); 19.xi.2016, R.V. da Cruz leg., 1 female (SESA); Douradina (23°22'51"S; 53°17'31"W); 03.ii.2017, A.P.C. Priori leg., 1 male (SESA); Campo Bonito (25°01'51"S; 52°59'34"W), Morada do Sol, 25.i.2017, M. Eloiza leg., 1 female (SESA); Rio Bonito do Iguaçú (25°29'27"S; 52°31'33"W), 04.iv.2016, Unidade de Saúde leg., 1 male (SESA); 02.iii.2016, Alvaro leg., 1 female (SESA); Altamira do Paraná (24°47'52"S; 52°42'46"W), 16.ii.2017, Prefeitura Municipal leg., 1 female (IBSP 303807); 12.ii.2017, R.A. Borges leg., 1 female (IBSP 303783); 02.v.2018, I. Barbosa leg., 1 female (SESA); Quatro Pontes (24°34'30"S; 53°58'37"W), Bairro Itatiaia, 19.iv.2017, G. Both leg., 1 male (SESA); Iretama (24°25'26"S; 52°06'21"W), 07.iv.2017, E.N. Oliveira leg., 1 male (SESA); Nova Esperança (23°11'02"S; 52°12'18"W), 07.iv.2017, A.S. Alves leg., 1 male (IBSP 303234); Roncador (24°36'10"S; 52°16'30"W), 11.iv.2017, E.R. Gonçalves leg., 1 male (SESA); Corumbataí do Sul (24°06'03"S; 2°07'12"W), 20.iv.2017, D. Camilo leg., 1 male (SESA); Umua-rama (23°45'57"S; 53°19'30"W), Jardim Dom Pedro II, 18.iv.2017, R.A.M. Bragato leg., 1 male (SESA); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 27.iv.2017, I.Z. Freita leg., 1 male (SESA); Itaipulândia (25°08'13"S; 54°18'07"W), 02.v.2017, J. Machado leg., 1 male (SESA); Mercedes (24°27'14"S; 54°09'43"W), 14.v.2017, O. Ekhardt leg., 1 male (SESA); Catanduvas (25°12'10"S; 53°09'25"W), Menino Deus, 11.v.2017, Delegacia de Polícia Civil leg., 1 male (SESA); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 14.v.2017, M. de L. Kubiaki leg., 1 male (SESA); Imbaú (24°26'42"S; 50°45'39"W), 01.viii.2017, E. Buda leg., 1 female (SESA); Goioerê (24°11'6"S; 53°01'40"W), Jardim Curitiba, 21.ix.2017, Cemitério Municipal leg., 1 female (IBSP 303790); Sarandi (23°26'38"S; 51°52'26"W), Estancia Zaúna, 10.iv.2018, S. Milan leg., 1 male (IBSP 303237); Boa Ventura de São Roque (24°52'08"S; 51°37'40"W), 19.vi.2018, O.F. de Arruda leg., 1 female (SESA); Itaipulândia (25°08'13"S; 54°18'7"W), Guaraci, 02.vii.2018, C. do Parque leg., 1 male (SESA); Curitibaano, 06.vii.2018, C. Vieira leg., 1 male (SESA); Juranda (24°25'12"S; 52°50'34"W), 12.vi.2018, M.F.F. de Araujo leg., 1 male (SESA); Rio Verde, 06.viii.2018, Escola Paulo Meniski leg., 1 male (SESA); Ibema (25°06'21"S; 53°0'43"W), 01.x.2018, M.M. de Camargo leg., 1 female (SESA); Bairro Fátima, 14.xi.2018, D.R. de Bomfim leg., 1 female (SESA); Braganey (24°48'57"S; 53°7'19"W), 09.i.2019, J.C. Pinheiro leg., 1 female (SESA); Lunardelli (24°04'44"S; 51°44'16"W), 28.i.2019, A.D. Novais leg., 1 female (SESA); Rio Bom (23°45'43"S; 51°24'39"W), 12.i.2019, P.C.R.F. dos Reis leg., 1 female (SESA); São José das Palmeiras (24°50'16"S; 54°03'50"W), 20.ii.2019, J.A.B. Sant'Ana leg., 1 female (SESA); Santa Helena (24°51'36"S; 54°19'58"W), Marinas, 22.iv.2019, J.A. da Silva leg., 1 male (SESA); Santa Terezinha de Itaipu (25°26'49"S; 54°24'03"W), Parque dos Estados, 22.iv.2019, A.M. Corrente leg., 1 male (SESA); Capitão Leônidas Marques (25°28'44"S; 53°36'50"W),

27.iii.2019, N. Zeniewicz leg., 1 male (SESA), 27.v.2019, T. de Avelar leg., 1 male (SESA); Santa Felicidade, 02.vii.2019, H. dal Bosco leg., 1 male (SESA); 02.vii.2019, H. dal Bosco leg., 1 male (SESA).

*Tekoapora wacketi* (Mello-Leitão, 1923)

Fig. 16

*Pterinopelma wacketi* Mello-Leitão, 1923: 185, figs 114–115.  
*Pamphobeteus insularis* Mello-Leitão, 1923: 241–242; Bertani, 2001: 294 (Syn.).  
*Pamphobeteus masculus* Piza, 1939: 6; Bertani, 2001: 294 (Syn.).  
*Pamphobeteus platyomma* Bücherl, 1949: 126, pl. II; Lucas et al., 1993: 245 (Syn.).  
*Pamphobeteus litoralis* Piza, 1976: 3; Bertani, 2001: 294 (Syn.).  
*Aphonopelma wacketi*: Schmidt, 1997: 19, figs 176, 183.  
*Vitalius wacketi*: Bertani, 2001: 294, figs 16, 83–86, 179–180.  
*Tekoapora wacketi*: Galleti-Lima et al., 2023: 7, fig. 7A–E

Historical records. PARANÁ: Paranaguá (25°31'12"S; 48°30'33"W); Morretes (25°28'37"S; 48°50'04"W); Antonina (25°25'43"S; 48°42'43"W); Curitiba (25°25'40"S; 49°16'23"W) (Bertani 2001).

New records. PARANÁ: Centenário do Sul (22°49'15"S; 51°35'42"W), 27.vii.1994, S.A. Morato leg., 1 female (IBSP 302966); Foz do Iguaçu (25°32'49"S; 54°35'11"W), no data, Departamento Veterinário leg., 1 female (IBSP 302972); Vila A, 04.v.2016, CZZ leg., 1 male (IBSP 302971); Mandaguari (23°32'52"S; 51°40'15"W), Santa Inez, 19.iv.2017, M. Conceição leg., 1 male (IBSP 302970).

*Vitalius dubius* (Mello-Leitão, 1923)

Fig. 14

*Pterinopelma dubium* Mello-Leitão, 1923: 188.  
*Pamphobeteus cesteri* Mello-Leitão, 1923: 236; Bertani, 2001: 298 (Syn.).  
*Pamphobeteus cucullatus* Mello-Leitão, 1923: 237; Bertani, 2001: 298 (Syn.).  
*Pamphobeteus piracicabensis* Piza, 1933: 119; Bertani, 2001: 299 (Syn.).  
*Pamphobeteus communis* Piza, 1939: 6, figs 7–9; Bertani, 2001: 299 (Syn.).  
*Pamphobeteus urbanicolus* Soares, 1941: 265, figs 6–7; Bertani, 2001: 298 (Syn.).  
*Pamphobeteus ypiranguensis* Soares, 1941: 268, figs 8–12; Bertani, 2001: 298 (Syn.).  
*Pamphobeteus mus* Piza, 1944: 274, pl. 2; Bertani, 2001: 299 (Syn.).  
*Eurypelma dubium*: Bücherl, 1957: 393, figs 43–43a.  
*Aphonopelma dubium*: Schmidt, 1993: 78, figs 176–177.  
*Vitalius dubius*: Bertani, 2001: 298, figs 10–11, 23, 91–100, 182–183.

Historical records. None.

New records. PARANÁ: Guamiranga (25°11'27"S; 50°48'18"W), 31.xii.2008, T. Shimiti leg., 1 female, 2 imm. (SESA); Cachoeira do Guamirim, 20.ii.2015, F. Baill leg., 1 female (SESA).

*Vitalius lucasae* Bertani, 2001

Fig. 16

*Vitalius lucasae* Bertani, 2001: 308, figs 125–128.

Historical records. PARANÁ: Araucária (25°35'35"S; 49°24'37"W); Irati (25°28'02"S; 50°39'04"W); Curitiba (25°25'40"S; 49°16'23"W); Morretes, Serra da Prata (25°28'37"S; 48°50'04"W) (Bertani 2001).

New records. PARANÁ: Cascavel (24°57'21"S; 53°27'18"W), 07.iv.1994, J. Bartzike & F. Elias leg., 1 male (IBSP 302976); Quatro Barras (25°21'57"S; 49°04'37"W), Colonia Maria José, 26.v.1994, Juarez leg., 1 male (IBSP 302974); Piraquara (25°26'31"S; 49°03'46"W), no date, no leg., 1 male (IBSP 302983); 22.v.1997, J.M. da Costa leg., 2 males (IBSP 302979); 25.v.2006, C.C. Borges leg., 1 male (IBSP 303004); Lapa (25°46'12"S; 49°42'57"W), 09.v.2005, D. Saito leg., 2 males (IBSP 302973); Turvo (25°2'34"S; 51°31'48"W), Loteamento Bettega, 04.vi.2017, I.T. de Almeida leg., 1 male (IBSP 302978).

*Vitalius paranaensis* Bertani, 2001

Figs 4, 17

*Vitalius paranaensis* Bertani, 2001: 306, figs 117–120, 186.

Historical records. PARANÁ: Curitiba (25°25'40"S; 49°16'23"W); Guarapuava (25°23'43"S; 51°27'29"W); Prudentópolis (25°12'47"S; 50°58'40"W); Ponta Grossa (25°05'42"S; 50°09'43"W); Jaguariaíva (24°15'04"S; 49°42'21"W); Engenheiro Beltrão (23°47'50"S; 52°16'09"W); Apucarana (23°33'03"S; 51°27'39"W); Marialva (23°29'06"S; 51°47'30"W); Maringá (23°25'31"S; 51°56'19"W); Arapongas (23°25'10"S; 51°25'28"W); Londrina (23°18'37"S; 51°09'46"W); Rolândia (23°18'35"S; 51°22'09"W); Cambé (23°16'33"S; 51°16'42"W); Ipirorã (23°16'09"S; 51°02'53"W); Uraí (23°11'51"S; 50°47'47"W); Iguaçu (23°11'49"S; 51°49'39"W); Cornélio Procópio (23°10'52"S; 50°38'48"W); Bandeirantes (23°06'36"S; 50°22'03"W); Paranavaí (23°04'23"S; 52°27'55"W); Andirá (23°03'02"S; 50°13'44"W); Cambará (23°02'47"S; 50°04'25"W); Sertaneja (23°02'13"S; 50°50'18"W); Balsa Nova, João Eugênio (25°35'02"S; 49°38'08"W); Foz do Iguaçu, Usina Hidrelétrica de Itaipú (25°32'52"S; 54°35'17"W) (Bertani 2001); Cornélio Procópio, Parque Estadual Mata São Francisco (23°09'35"S; 50°34'46"W) (Chavari et al. 2014).

New records. PARANÁ: Mandaguáçu (23°20'49"S; 52°05'42"W), 14.iv.1994, C. Batista leg., 1 female (SESA); Enéas Marques (25°56'31"S; 53°09'50"W), 15.iv.1994, S.M.V.S. 8° RS, F. Beltrão leg., 1 male (IBSP 303019); Jacarezinho (23°09'39"S; 49°58'08"W), 19.ix.1994, Tereza leg., 1 female

(SESA); Imbituva (25°13'48"S; 50°36'16"W), 28.ix.1996, S. Camargo leg., 1 male (IBSP 303142); 05.iv.2019, M. Wiezbicki leg., 1 male (SESA); Paiçandu (23°27'28"S; 2°02'56"W), 10.iv.1995, 15° RS Maringá leg., 1 female (SESA); Santa Isabel do Ivaí (23°0'19"S; 53°11'16"W), 03.ii.2000, C. Caroni leg., 1 female (SESA); Bom Sucesso (23°42'36"S; 51°45'50"W), 25.i.2002, V. Silva leg., 2 females (SESA); Cascavel (24°57'21"S; 53°27'18"W), 09.v.2002, J. Lonrosiski leg., 1 male (SESA); 15.iv.1997, C. Andrade leg., 1 female (SESA); 19.xi.2002, no leg., 1 female (IBSP 303020); 07.v.2009, I.F. dos Santos leg., 1 male (IBSP 303008); Telêmaco Borba (24°19'26"S; 50°36'57"W), 04.iii.2003, A.R. Meireles leg., 1 male (IBSP 303014); 04.xi.2003, L.N. Oliveira leg., 1 female (SESA); 20.ii.2006, V.L.P. Nunes leg., 1 male (SESA); 22.iii.2006, Samara leg., 1 female (SESA); Socomin, 17.i.2011, A.H. de Souza leg., 1 male (IBSP 303154); Jardim Progresso, 13.iii.2012, Edson leg., 1 male (SESA); Planaltina do Paraná (23°0'25"S; 52°54'50"W), no data, no leg., 1 female (SESA); Manoel Ribas (24°30'57"S; 51°40'04"W), 29.iii.2005, A.C. Wodile leg., 1 male (SESA); Nova Aurora (24°31'44"S; 53°15'21"W), 11.x.2006, 10<sup>a</sup> R.S. Cascavel leg., 1 female (SESA); Guaraniçu (25°06'03"S; 52°52'40"W), 07.vi.2002, no leg., 1 female (SESA); 19.xi.2008, V. Hugo leg., 1 male (IBSP 303028); 26.xi.2014, J. Amorim leg., 1 male (SESA); Jardim Real, 01.v.2017, M. dos S. Pereira leg., 1 male (SESA); Bairro Cazella, 04.vi.2018, F.J. Diniz leg., 1 male (IBSP 303026); 14.iv.2019, V. Alves leg., 1 male (SESA); 15.iv.2019, O. Rigo leg., 1 male (SESA); Assaí (23°22'22"S; 50°50'27"W), 07.iv.2009, E.A. Guadain leg., 1 female (IBSP 303127); Jussara (23°37'15"S; 52°28'08"W), 30.i.2010, M. das G. Silva leg., 1 male (IBSP 303134); Rio Bom (23°45'43"S; 51°24'39"W), 22.ii.2010, M.Z.C. Marques leg., 1 male (IBSP 303130); 05.iii.2017, T.C.C. da Costa leg., 1 male (SESA); 10.iv.2019, E. Ferreira leg., 1 male (SESA); 09.iv.2019, J. Maria leg., 1 female (SESA); Matelândia (25°14'27"S; 53°59'45"W), Jardim Guariacá, 22. iv.2010, V. Nahirne leg., 1 female (IBSP 303054); Colombo (25°17'31"S; 49°13'26"W), 28.v.2010, Caic leg., 1 male (IBSP 303158); Santa Terezinha de Itaipu (25°26'49"S; 54°24'03"W), Parque dos Estados, 23.v.2010, P. Batista leg., 1 female (IBSP 303021); 24.iv.2012, M. El Ani leg., 1 male (IBSP 303030); Guamiranga (25°11'27"S; 50°48'18"W), Rio Bonito, 27.x.2010, N. Leal leg., 1 female (IBSP 303155); 03.xi.2010, J.V. da Cruz leg., 1 female (IBSP 303149); Cachoeira do Guamirim, 11.iv.2013, G. Cavassin leg., 1 female (SESA); 11.iii.2015, J.I. Maier leg., 1 male (SESA); Boa Vista, 27.ii.2018, N.P. Cavassim leg., 1 male (SESA); Cruzeiro do Sul (22°57'43"S; 52°09'39"W), 24.xi.2010, E. da Cunha & M. César leg., 1 male (IBSP 303141); Santa Cruz do Monte Cas-

telo (22°57'10"S; 53°17'49"W), 13.x.2010, P. Saraiva leg., 1 female (IBSP 303152); Amaporã (23°05'45"S; 52°47'16"W), 01.xii.2010, S.J.M. de Moura leg., 1 male (IBSP 303136); São Pedro do Paraná (22°49'26"S; 53°13'12"W), Marrecas, 21.iii.2011, J.P. Negrizolli leg., 1 female (SESA); Nova Prata do Iguaçu (25°37'58"S; 53°20'49"W), 18.v.2011, M. Minozzo leg., 1 male (SESA); Pato Branco (26°13'44"S; 52°40'15"W), Cristo Rei, 03.viii.2011, M. Martinello leg., 1 female (IBSP 303053); Ortigueira (24°12'28"S; 50°56'56"W), 01.viii.2011, V. Grein leg., 1 female (SESA); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 25.i.2012, K. Vargas leg., 1 female (IBSP 303157); Ibaiti (23°50'56"S; 50°11'16"W), Vila Guay, 24.i.2012, D.D.B. Bráz leg., 1 female (IBSP 303007); Campina do Simão (25°04'44"S; 51°49'37"W), 02.ii.2012, J.A. Brey leg., 1 female (IBSP 303024); Iracema do Oeste (24°25'40"S; 53°21'18"W), 09.ii.2012, R. de F.C. Besson leg., 1 female (IBSP 303049); Indianópolis (23°28'33"S; 52°41'45"W), 24.ii.2012, J. Alexandre leg., 1 female (SESA); Formosa do Oeste (24°17'34"S; 53°18'46"W), Comunidade Guaporé, 07.iii.2012, V. Edrez leg., 1 male (IBSP 303047); Nova Aurora (24°31'44"S; 53°15'21"W), Povoado São João, 04.iv.2012, L. Sansel leg., 1 male (IBSP 303050); Rebouças (25°37'15"S; 50°41'34"W), 02.iv.2012, R.L. Cosa leg., 1 male (SESA); Carlópolis (23°25'30"S; 49°43'15"W), Asilo São Vicente de Paula, 27.iii.2012, A. Guarnieri leg., 1 male (SESA); Mamborê (24°19'08"S; 52°31'48"W), Comunidade Pensamento, 15.iii.2012, L.C. Leonço leg., 1 male (SESA); Foz do Jordão (25°44'13"S; 52°07'08"W), 24.v.2012, R. Guizzo leg., 1 male (IBSP 303057); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 21.v.201, S. de Mello leg., 1 male (IBSP 303055); 22.v.2012, E.M. de O. Levinski leg., 1 male (IBSP 303131); 23.v.2012, E. de M. Pinto leg., 1 male (IBSP 303031); 15.v.2015, A. de A. Lieber leg., 1 female (IBSP 303044); 25.v.2015, E.M. de Oliveira leg., 1 male (IBSP 303043); 01.vi.2017, A. Batista leg., 1 male (IBSP 303032); 08.v.2018, A.P. de Lima leg., 1 male (IBSP 303035); Anahy (24°38'38"S; 53°08'06"W), 29.v.2012, L. Leão leg. 1 male (IBSP 303056); 02.ii.2014, J. Orlando leg., 1 female (IBSP 303017); 27.vi.2016, N.B. Rotta leg., 1 female (SESA); 28.xi.2016, N.B. Rotta leg., 1 female (IBSP 303039); Missal (25°05'31"S; 54°14'52"W), 30.v.2012, Lúcia leg., 2 males (IBSP 303027); 29.v.2012, Sandra leg., 1 male (IBSP 303042); 29.iv.2018, V. Lenhard leg., 1 male (IBSP 303025); Planalto (25°42'57"S; 53°45'57"W), 28.v.2012, E.C. Reinehr leg., 1 male (IBSP 303059); Itaipulândia (25°08'13"S; 54°18'07"W), 01.vi.2012, Joice leg., 1 male (IBSP 303036); Nova Aurora (24°31'44"S; 53°15'21"W), Colégio Machado de Assis, 28.vii.2012, R.E.D. Sabino leg., 1 female (IBSP 303015); Piraí do Sul (24°31'33"S; 49°56'56"W), Vila Brasi-

linha, 26.x.2012 J.V.B. de Deus leg., 1 female (SESA); Nova Fátima (23° 25'55"S; 50° 33'50"W), 26.ii.2013, M. de O. Nacur leg., 1 female (SESA); Mandaguaçu (23° 20'49"S; 52° 05'42"W), 12.iii.2013, A.G. Amaral leg., 1 female (SESA); Mandaguari (23° 32'52"S; 51° 40'15"W), Jardim Esplanada, 14.iii.2013, F.D. Magine leg., 1 male (SESA); Céu Azul (25° 08'49"S; 53° 50'56"W), Parque Verde, 08.iv.2013, T. Blodow leg., 1 male (SESA); Nova União, 25.iv.2013, L. Secco leg., 1 male (SESA); 15.v.2013, A. Michelon leg., 1 male (IBSP 303037); Marilena (22° 44'09"S; 53° 02'24"W), Sítio Tres Irmãos, Assentamento Santo Angelo, 12.xi.2013, M.N. Netzkal leg., 3 females (SESA); Sertanópolis (23° 03'32"S; 51° 02'09"W), 02.x.2013, C.A. Torres leg., 1 female (SESA); Centenário do Sul (22° 49'15"S; 51° 35'42"W), 09.xii.2013, Dejair leg., 1 female (SESA); Santa Mariana (23° 09'03"S; 50° 31'08"W), Vila Trevo, 24.iii.2014, A. de M. Silva leg., 1 female (IBSP 303146); Laranjal (24° 53'13"S; 52° 28'08"W), 31.iii.2014, S. Trindade leg., 1 male (IBSP 303029); Marquinho (25° 06'46"S; 52° 15'14"W), Vila Coaming, 01.iv.2014, L. Namiuk leg., 1 male (IBSP 303045); 18.iii.2015, S. dos Santos leg., 1 male (SESA); 28.iii.2016, E. Luczinski leg., 1 male (SESA); Vila Rosinski, 09.i.2017, E. Rizisk leg., 1 female (SESA); 23.iii.2018, Y.G. dos Santos leg., 1 male (IBSP 303133); Ubiratã (24° 32'42"S; 52° 59'16"W), Jardim Josefina, 16.iv.2014, L.C. Guedes leg., 1 male (SESA); Jaguapitã (23° 06'46"S; 51° 31'55"W), 31.vii.2014, S. da Silva leg., 1 female (SESA); Araruna (23° 55'55"S; 52° 29'45"W), 18.viii.2014, F. Costa leg., 1 female (SESA); São Pedro do Ivaí (23° 51'54"S; 51° 51'21"W), 05.iii.2015, M.C. Pereira leg., 1 male (SESA); Cianorte (23° 39'46"S; 52° 36'18"W), 19.iii.2015, A. Ferreira leg., 1 male (SESA), Distrito de Vidigal, 03.iii.2013, W.S. Madela leg., 1 male (SESA), Jardim São Francisco, 01. iv.2014, A.R. Almeida leg., 1 male (IBSP 303160); Alto Piquiri (24° 01'40"S; 53° 26'27"W), 26.ii.2015, M.R. Puziol leg., 1 male (SESA); Ivaí (25° 0'39"S; 50° 51'32"W), São Roque, 01.iv.2015, Unidade de Saúde São Roque leg., 1 male (SESA); Paula Freitas (26° 12'28"S; 50° 56'16"W), 09.iv.2015, F. Palhano leg., 1 male (SESA); Francisco Beltrão (26° 04'51"S; 53° 03'18"W), Jardim Itália II, 22.iv.2015, G.M.W. de Oliveira leg., 1 male (SESA); Planaltina do Paraná (23° 0'25"S; 52° 54'50"W), 09.iii.2015, V. Barbosa leg., 1 male (SESA); Luiziana (24° 17'09"S; 52° 16'33"W), 14.iv.2015, A. Veris leg., 1 female (IBSP 303052); 08.iv.2015, L. Martins leg., 1 male (SESA); Chácara Julia, 29.iv.2015, S. Gonçalves leg., 1 male (SESA); 08.v.2017, R.A. Montealto leg., 1 male (IBSP 303005); Goioerê (24° 11'06"S; 53° 01'40"W), Vila Guaíra, 17.iii.2015, PSF Vila Guaíra leg., 1 male (SESA); Bairro Santa Casa, 23.iv.2019, S.M. Paiva leg., 1 male (SESA); Laranjeiras do Sul (25° 24'28"S; 52° 24'57"W), 05.v.2015, C.M. Bortoluzzi leg., 1

female (IBSP 303038); Janiópolis (24° 08'31"S; 52° 46'55"W), 15.iv.2015, A.P. Soares leg., 1 female (SESA); Nova Aurora (24° 31'44"S; 53° 15'21"W), Jardim Nova Aurora, 14.v.2015, no leg., 1 female (IBSP 303046); Vera Cruz do Oeste (25° 03'28"S; 53° 52'37"W), Linha Jangada, 19.v.2015, M.C. de Noronha leg., 1 female (IBSP 303040); Formosa do Oeste (24° 17'34"S; 53° 18'46"W), 20.v.2015, V.T. Santana leg., 1 male (IBSP 303051); Iguatu (24° 43'01"S; 53° 05'02"W), 24.v.2015, C.C.G. de Oliveira leg., 1 male (IBSP 303041); 08.v.2017, C.C.G. de Oliveira leg., 1 male (SESA); 01.v.2018, E. Baldissera leg., 1 male (IBSP 303016); 18.v.2018, D. dos Santos leg., 1 male (IBSP 303023); Corbélia (24° 47'56"S; 53° 18'25"W), 27.v.2015, J.C. Silva leg., 1 female (SESA); Vila Nova Nazaré, 13.i.2017, Juliana leg., 1 female (SESA); Japurá (23° 28'12"S; 52° 33'10"W), Jardim Liberdade, 17.vi.2015, D.L. dos Santos leg., 1 female (SESA); Medianeira (25° 17'42"S; 54° 05'38"W), 22.vi.2015, O. Botassoli leg., 1 female (SESA); Pérola (23° 48'18"S; 53° 41'02"W), 13.vii.2015, V. Malheiro leg., 1 female (SESA); Nova Laranjeiras (25° 18'25"S; 52° 32'27"W), Bairro Cohapar, 14.viii.2015, C. Cavasotto leg., 1 female (SESA); Juranda (24° 25'12"S; 52° 50'34"W), 16.x.2015, P. Wipieski leg., 1 female (SESA); Turvo (25° 02'34"S; 51° 31'48"W), Jardim Alegre, 16.iii.2016, E. Peske leg., 1 male (SESA); 11.v.2017, C. Routh leg., 1 male (SESA); Cafelândia (24° 37'04"S; 53° 19'12"W), 15.iii.2016, A. Hanauer leg., 1 male (IBSP 303048); Sarandi (23° 26'38"S; 51° 52'26"W), Parque Alvarado, 18.ii.2016, A. Rosa leg., 1 male (SESA); Jardim Bom Pastor, 06.viii.2019, José leg., 1 female (SESA); Goioxim (25° 11'42"S; 51° 59'34"W), Alto dos Milagres, 04.iv.2016, E. Foss leg., 1 male (SESA); Jacutinga, 28.iv.2016, J. Lorenzet leg., 1 female (SESA); Bela Vista, 21.iv.2017, D. Britz leg., 1 male (IBSP 303022); Alto Alegre, 16.x.2017, J.G. Kintof leg., 1 female (SESA); Iretama (24° 25'26"S; 52° 6'21"W), 20. iii.2016, E.N. de Oliveira leg., 1 male (SESA); Catanduvas (25° 12'10"S; 53° 09'25"W), Alto Alegre, 18.v.2016, L. Bonatto leg., 1 female (SESA); Céu Azul (25° 08'49"S; 53° 50'56"W), Bairro São Lucas, 01.vi.2016, L. Mazarollo leg., 1 male (SESA); Mandaguaçu (23° 20'49"S; 52° 05'42"W), Jardim Europa, 09.viii.2016, Leda leg., 1 male (IBSP 303144); Japurá (23° 28'12"S; 52° 33'10"W), Estrada Aporé, 15.ix.2016, E.P. Silva leg., 1 female (SESA); Boa Esperança (24° 14'31"S; 52° 47'20"W), 19.ix.2016, C. Rebequi leg., 1 female (SESA); Comunidade João Senna, 03.iv.2017, F.P. de Almeida leg., 1 female (SESA); Ourizona (23° 24'18"S; 52° 11'56"W), 25. iii.2014, G.C. Juventus leg., 1 male (IBSP 303129); 09.xii.2016, M.F. de Souza leg., 1 female (SESA); Califórnia (23° 39'00"S; 51° 21'18"W), Novo Horizonte, 08.iii.2017, R. Sponton leg., 1 male (IBSP 303140); Nova Olímpia (23° 28'19"S; 53° 5'20"W),



08.iii.2017, J. Francisco leg., 1 male (IBSP 303148); Mauá da Serra (23°54'03"S; 51°13'44"W), 21.iii.2017, I. Hart leg., 1 male (SESA); Alto Piquiri (24°01'40"S; 53°26'27"W), 16.iii.2017, J.G. de Oliveira leg., 1 male (SESA); São Pedro do Ivaí (23°51'54"S; 51°51'21"W), 16.iii.2017, G.L. da Silva leg., 1 male (IBSP 303147); Altamira do Paraná (24°47'52"S; 52°42'46"W), 09.iv.2017, A.A. dos Santos leg., 1 male (IBSP 303013); 17.iv.2017, A.A. dos Santos leg., 2 males (IBSP 303012); 30.vi.2017, Z.M. Amaral leg., 1 female (SESA); 16.iv.2018, C.S. dos Santos leg., 1 male (SESA); São João do Ivaí (23°58'48"S; 51°49'04"W), Residencial Calefi II, 25. iv.2017, G.D. Filho leg., 1 male (IBSP 303011); Grandes Rios (24°08'45"S; 51°30'21"W); Ribeirão Bonito, 03.v.2017, L.E.F. dos Santos leg., 1 male (SESA); Campo Bonito (25°01'51"S; 52°59'34"W), São Sebastião, 10.v.2017, C. do Nascimento leg., 1 male (SESA), 09.iv.2015, 1 male (SESA); Morada do Sol, 11.vi.2018, R. Pinheiro leg., 1 male (IBSP 303009); 20.v.2015, UBS-Campo Bonito leg., 1 male (IBSP 303058); Santa Tereza do Oeste (25°03'07"S; 53°37'58"W), 22.v.2017, F. da Silva leg., 1 male (IBSP 303033); Mandaguari (23°32'52"S; 51°40'15"W), 24.v.2017, M.P. Viana leg., 1 male (SESA); Abatiá (23°18'14"S; 50°18'46"W), 20.vii.2017, Prefeitura Municipal de Abatiá leg., 1 female (IBSP 303139); 13.iii.2018, M. Carvalho leg., 1 male (IBSP 303153); 21.iii.2018, CMEI leg., 2 male, 1 imm. (IBSP 303128); Vila Nova, 30.v.2018, S.R. Barbosa leg., 1 male (IBSP 303145); Mandaguacu (23°20'49"S; 52°05'42"W), Lagoa Dourada, 16.xi.2017, R.M. Roman leg., 1 female (SESA); Guaporema (23°20'34"S; 52°46'44"W), 21.xi.2017, Alex leg., 1 female (SESA); Guaíra (24°04'48"S; 54°15'21"W), Jardim Guaira, 11.xi.2017, Paulo leg., 1 male (IBSP 303143); Vila Rica, 22.i.2018, J.S. Lima leg., 1 female (IBSP 303151); Lunardelli (24°04'44"S; 51°44'16"W), 19.iii.2018, J.C.O. da Silva leg., 1 female (IBSP 303150); Terra Boa (23°46'04"S; 52°26'38"W), Bairro Malu, 22.iii.2018, S.G. dos Santos leg., 1 male (IBSP 303125); Vera Cruz do Oeste (25°03'28"S; 53°52'37"W), 02.iv.2018, Sitio Mazera, Equipe de Endemias leg., 1 male, 1 imm. (IBSP 303034); Nova Fátima (23°25'55"S; 50°33'50"W), 13.iii.2018, C. de Oliveira leg., 1 male (IBSP 303156); Ampére (25°54'54"S; 53°28'22"W), Nossa Senhora das Graças, 30.i.2018, D.S. Zboralski leg., 1 male (IBSP 303018); Itaipulândia (25°08'13"S; 54°18'07"W), 13.iv.2018, F. Zimpel leg., 1 male (IBSP 303010); Ivaiporã (24°14'52"S; 51°41'06"W), Bairro Guanabara II, 24.v.2018, M.E.P. Santos leg., 1 male (IBSP 303132); Nova Olímpia (23°28'19"S; 53°05'20"W), 23.iii.2018, D. da Silva leg., 1 male (IBSP 303159); 13.iii.2018, R.A. Ribeiro leg., 1 male (IBSP 303135); Itaipulândia (25°08'13"S; 54°18'07"W), 18.v.2018, C. Vieira leg., 1 male (IBSP 303006); São Mateus do Sul (25°52'26"S;

50°22'58"W), Vila Pinheirinho, 06.iv.2019, M.A. Lima leg., 1 male (SESA); São Pedro do Ivaí (23°51'54"S; 51°51'21"W), 16.iv.2019, J. Paixão leg., 1 male (SESA); Cândido de Abreu (24°34'01"S; 51°19'58"W), Bela Vista, 06.v.2019, J. Terezinha leg., 1 male (SESA); Vera Cruz do Oeste (25°03'28"S; 53°52'37"W), 30.iv.2019, A. Silva leg., 3 males (SESA); Umua-rama (23°45'57"S; 53°19'30"W), Belo Monte, 21.iii.2019, K.K. Silva leg., 1 female (SESA).

### *Vitalius sorocabae* (Mello-Leitão, 1923)

Figs 3, 18

*Pamphobeteus sorocabae* Mello-Leitão, 1923: 233.

*Vitalius sorocabae*: Lucas, Silva & Bertani, 1993: 243, figs 1–3.

Historical records. PARANÁ: Araucária (25°35'35"S; 49°24'37"W); Curitiba (25°25'40"S; 49°16'23"W); Castro (24°47'28"S; 50°00'43"W); Bandeirantes (23°06'36"S; 50°22'03"W) (Bertani 2001).

New records. PARANÁ: Paranavaí (23°04'22"S; 52°27'54"W), Jardim Renascer, 02.ii.2006, M.M. da Silva leg., 1 male (IBSP 303095); Sumaré, 15.ii.2011, M.S. Navarro leg., 1 male (IBSP 303087); Telêmaco Borba (24°19'26"S; 50°36'57"W), Bairro Macopa, 07.ii.2007, L.L. de Oliveira leg., 1 male (IBSP 303103); 17.i.2011, E.C. Alves leg., 1 male (IBSP 303111); 16.iv.2018, M.de F. de Oliveira leg., 1 male (IBSP 303104); 27.ii.2018, A.C. Ribeiro leg., 1 male (IBSP 303090); Irati (25°28'01"S; 50°39'03"W), 03.x.2007, A.M. Zapotogny leg., 1 male (IBSP 303116); Dois Vizinhos (25°45'0"S; 53°03'25"W), Guanabara, 10.xi.2010, Adolar leg., 1 male (IBSP 303097); Guamiranga (25°11'27"S; 50°48'18"W), Cachoeira do Guamirim, 25.iii.2011, J. Ribas leg., 1 male (IBSP 303107); Virmond (25°22'51"S; 52°11'56"W), 12.xii.2011, D. Danilavicius leg., 1 male (IBSP 303093); Boa Vista da Aparecida (25°26'09"S; 53°24'28"W), 06.v.2012, J. Signorini leg., 1 male (IBSP 303092), 02.v.2012, E. de Oliveira leg., 1 male (IBSP 303094); Rio Bonito do Iguacu (25°29'27"S; 52°31'33"W), 09.v.2012, G. Postigler leg., 1 female (IBSP 303117); Santa Terezinha de Itaipu (25°26'49"S; 54°24'03"W), 23.iv.2012, A.R. de Almeida leg., 1 male (IBSP 303121); Missal (25°05'31"S; 54°14'52"W), 03.v.2012, A. Guiu leg., 1 male (IBSP 303123); Iracema do Oeste (24°25'40"S; 53°21'18"W), 12.v.2012, S.M. de Carvalho leg., 1 male (IBSP 303124); Salto do Itararé (23°36'03"S; 49°37'33"W), Vila Nova, 01.vii.2013, G. de S. Borges leg., 1 female (IBSP 303099); Três Barras do Paraná (25°25'08"S; 53°10'51"W), Alto Campo, 01.ix.2013, N. Fachini leg., 1 male (IBSP 303102); Marilena (22°44'09"S; 53°02'24"W), Sítio Três Irmãos, Assentamento Santo Angelo, 12.xi.2013, M.N. Netzkal leg., 1 female (IBSP 303119); Cafeeira (22°47'34"S; 51°42'57"W), 15.i.2014, C. Sperandio leg., 1

female (IBSP 303112); Marilena (22°44'09"S; 53°02'24"W), 15.ix.2014, Q.M. da Silva leg., 1 female (IBSP 303120); Anahy (24°38'38"S; 53°08'06"W), 23.iv.2015, D. Luiza leg., 1 female (IBSP 303122); Mauá da Serra (23°54'03"S; 51°13'44"W), 16.v.2017, M.I. Bueno leg., 1 male (IBSP 303096); Jardim São Luiz, 24.v.2018, M. Rocha leg., 1 male (IBSP 303110); Lunardelli (24°04'44"S; 51°44'16"W), 02.iv.2018, A.M. dos Santos leg., 1 male (IBSP 303106); Ampére (25°54'54"S; 53°28'22"W), 20.vii.2017, M.W. Dalazen leg., 1 male (IBSP 303109); Foz do Iguazu (25°32'49"S; 54°35'11"W), Jardim Novo Horizonte, 13.iv.2018, E. Zimm leg., 1 male (IBSP 303086); 20.iv.2018, M.A. da Silva leg., 1 female (IBSP 303098); Bairro Carimã, 01.ii.2019, CCZ leg., 1 male (IBSP 303108); Guaíra (24°4'48"S; 54°15'21"W), Vila Velha, 10.iv.2018, M. Barbeiro leg., 1 male (IBSP 303100) Porto Barreiro (25°32'49"S; 52°24'8"W), 03.ix.2018, R. Duminelli leg., 1 female (IBSP 303105).

### *Vitalius vellutinus* (Mello-Leitão, 1923)

Fig. 13

*Pterinopelma vellutinum* Mello-Leitão, 1923: 186, figs 112–113.  
*Vitalius vellutinus*: Bertani, 2001: 302, figs 101–111, 184.

Historical records. None.

New records. PARANÁ: Laranjeiras do Sul (25°24'28"S; 52°24'57"W), 16.iv.2015, L. Gazzieiro leg., 1 male (IBSP 302964); Londrina (23°18'36"S; 51°09'46"W), Parque Guanabara, 16.iv.2015, V.A. Diena leg., 1 male (IBSP 302965).

## DISCUSSION

Local residents in Paraná municipalities have collected the majority of the examined material since 1991, mainly in and around households. The records remained relatively stable until 2010, with an average not exceeding 50 occurrences within each interval of five years. In 2011, there was an update in the method of data reception, and the SINAP was made available on an online platform (Ministério da Saúde 2022). As a result of this update, there was a significant increase of almost four times in the number of entries for mygalomorph species in the SESA (Fig. 9).

According to our results, it becomes evident that the venomous animal notification system implemented by the health department of the state of Paraná is efficient as a tool for the population to become familiar with the mygalomorph spiders in their cities. Despite their appearance and size, South American Mygalomorphae are not dangerously venomous, and have not caused significant accidents involving the population, since the number of cases has proven to be

lower than expected (see Lucas et al. 1994). Nevertheless, in Brazil, data regarding accidents involving mygalomorphs are negligible, with only a few studies addressing the topic and presenting limited species records. Lucas et al. (1994) presented a report of 91 cases of bites by mygalomorphs, covering 25 years of records at the Vital Brazil Hospital, Instituto Butantan. It corresponds to an average that does not exceed four cases per year, confirming the non-aggressive nature of these spiders and their lack of threat to public health.

Despite this, we cannot fail to highlight that in at least two species, a protein with high identity with neprilysins (NEPs) was detected, "Ajur\_Neprilysin" (Nascimento et al. 2021). NEPs are a type of metalloendopeptidase that is known to be present in the venom of different animals, but in mygalomorphs this enzyme has only been identified in *Trittame loki* Raven, 1990 (Barychelidae) (Undheim et al. 2013) and in *Avicularia juruensis* Mello-Leitão, 1923 (Theraphosidae) (Nascimento et al. 2021). Its function has not yet been elucidated. Even so, this compound does not seem to pose a danger to humans in the case of Mygalomorphae, with few exceptions, but few venoms have been analyzed (Hauke and Herzog 2017).

Regarding records of different species obtained through the venomous animal surveillance system, these are significantly superior in comparison to historical records. Historical data is mainly derived from publications and these are from spiders deposited in scientific collections. Those originating from collections are often from specific sampling from researcher expeditions (Brescovit et al. 2011, Oliveira et al. 2017). The knowledge of the distribution of most species discussed here is significant, and many records are attributed to SINAP, which since 2010 has been expanding information and enabling the documentation of the diversity in several areas of the state of Paraná that previously had no records of mygalomorphs (Fig. 9). This shows the undeniable power of harnessing citizen naturalists. Furthermore, the data provided by SINAP in the last decade allows us to observe a high number of adult male records in the first half of each year. This suggests that male mygalomorphs in the state of Paraná were proportionally more common during the months of February to May, reaching maturity before their female counterparts. These generally matured later in the year (Figs 19–28). However, it is important to highlight that the majority of spiders were captured in urban areas, within the context of SINAP notifications.

Despite the fact that data in this work has significant urban influence, the results reveal a notable diversity of mygalomorph species in the state of Paraná. These findings

contribute to expanding our understanding of the species encountered by the population around their homes or peri-urban areas and subsequently sent for identification. This work draws attention to potential accidents caused by mygalomorph in Paraná, with the hope that the scientific community will collaborate with policy makers and the public to mitigate risk and raise awareness.

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