



## Contributions to the knowledge of the biodiversity of Heteroptera (Insecta) in the Southern Cone, Argentina

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### Abstract

Insect studies for different regions are scarce as most of the material is collected in isolation, thus preventing extensive taxonomic listings. Conducting inventories of terrestrial biodiversity in a specific area is an arduous task, with many obstacles: mainly the lack of data on taxonomic and geographical distribution necessary to study them. The aim of this work is to present new contributions to the geographical distribution of Heteroptera in the Pampean, Espinal and Monte phytogeographic provinces, in the central region of Argentina, Southern Cone. Ten samples were taken, using the following methods, beating sheet, light trap and G-Vac (garden-vacuum). Each point within the site was sampled by each type of trap for one minute, leading to a total of 10 minutes per capture method in each site, except the light trap. Twenty-two species are recorded for the first time in the central region of Argentina, Southern Cone.

**Key words:** Andean, Neotropic, true bugs, La Pampa, list species, new record, first time

### Introduction

The action of man upon nature generally reduces the richness of species in ecosystems, causing loss of biodiversity (Wilson 1988). This is caused by changing natural environments through the development of agriculture and the introduction of animal practices, such as livestock raising; causing habitat fragmentation (Demaria *et al.* 2008).

While insects are greatly abundant, studies on them are scarce in different regions, as most of the collections are made in isolation, which prevents complete taxonomic listings (Brailovsky *et al.* 1992). In addition, most for several groups in South America, most of the known data comes from the records of old expeditions (Faúndez 2009). Also, most of these records belong to areas close to the coast where ships disembark; therefore most of the time central provinces were forgotten (E. I. Faúndez com. pers).

Conducting inventories of terrestrial biodiversity in a specific area is an arduous task, which involves overcoming several obstacles. Among these, the most important is the lack of taxonomic data to study, use and preserve existing resources properly (Whitmore *et al.* 2002). This reality calls upon the creation of policies and strategies to fill those taxonomic gaps (Campos & Fernández 2002). The environmental crisis faced by different countries, including Argentina, limits the timespan to conduct studies and provide answers to the basic questions related to the use, knowledge and preservation of biodiversity through the study of species from different places (Moreno *et al.* 2011).

Insects are the most abundant group of animals around the world: approximately one million of them have been recorded, but the exact number is unknown as many are yet to be discovered (Gullan and Cranston 2000; Erwin 1982, 1983; Holstein 2001). From an economic perspective, many insects are important because of the damage they cause to crops and stored products. From a medical point of view, other insects are important as transmitters of diseases causing serious problems in the health of humans and many animal species (Mitchell 2000). In Hemiptera, we can find the Heteroptera, with approximately [?] 40,000 species described (Schuh and

Slater 1995; Henry 2009; Weirauch & Schuh 2011; Panizzi & Grazia 2015). Individuals of this suborder have ecological importance on their interaction with plants and other arthropods, once the heteropterans are predators and herbivores (Mitchell 2000). In terms of the economic impact, many true bugs cause the loss of crops and ornamental flowers, becoming pests. In turn, the kissing bugs–triatomines– are vectors of the Chagas’ disease; also, other species can inflict painful adventitious bites; and bed bugs are currently a big issue because of its world level resurgence (Klots *et al.* 1970; Mitchell 2000; Zabala 2009; Hernández & Henry 2010; Faúndez & Carvajal 2014; Faúndez 2015; Faúndez 2016).

The probability of a great number of Heteropteran taxa in Argentina has long been appreciated, but seldom intensely studied. Except for the obsolete to especies or nomenclature of Berg (1878–1880) “Hemiptera Argentina: Ensayo de una monografía de los Hemipteros Heterópteros y Homópteros de la República Argentina” and the enumeration in the two volume Pennington (1920–1921) “Lista de los Hemipteros Heterópteros de la República Argentina” were he presents a list of 256 genera and 514 species without keys and the recent A catalogue of the Heteroptera (Hemiptera) or true bugs of Argentina Coscarón, (in press).

The aim of this work is to present new contributions to the geographical distribution of Heteroptera in the Pampean, Espinal and Monte phytogeographic provinces, in the central region of Argentina, Southern Cone.

## Materials and methods

The province of La Pampa (37° 07' 15.13" S 65° 51' 31.27" W) is located in the middle part of Argentina. The country is divided into phytogeographic territories, which are divided into Domains, Provinces and Districts (Cabrera 1994). In La Pampa, three phytogeographic provinces are represented (Espinal, Monte and Pampean) belonging to the Chaqueño domain (Fig. 1). Two samplings were conducted during 2010 and 2011 in 9 sites within the study area (Fig. 1, table 1).

**TABLE 1.** Georeferences of study sites in Southern Cone, Argentina.

Study sites	Georeference
Site 1 <b>(red circle)</b>	38°09'27.77" S 67°03'56.14" W
Site 2 <b>(yellow circle)</b>	37°58'50.54" S 65°35'32.85" W
Site 3 <b>(yellow square)</b>	36°13'55.22" S 66°56'15.19" W
Site 4 <b>(purple circle)</b>	35°46'36.13" S 63°56'22.41" W
Site 5 <b>(blue circle)</b>	35°52'44.57" S 63°56'21.36" W
Site 6 <b>(red triangle)</b>	36°03'59.07" S 63°56'36.66" W
Site 7 <b>(purple square)</b>	36°37'23.31" S 64°17'24.74" W
Site 8 <b>(red square)</b>	36°54'21.28" S 64°15'10.52" W
Site 9 <b>(yellow triangle)</b>	37°34'17.27" S 65°11'32.52" W

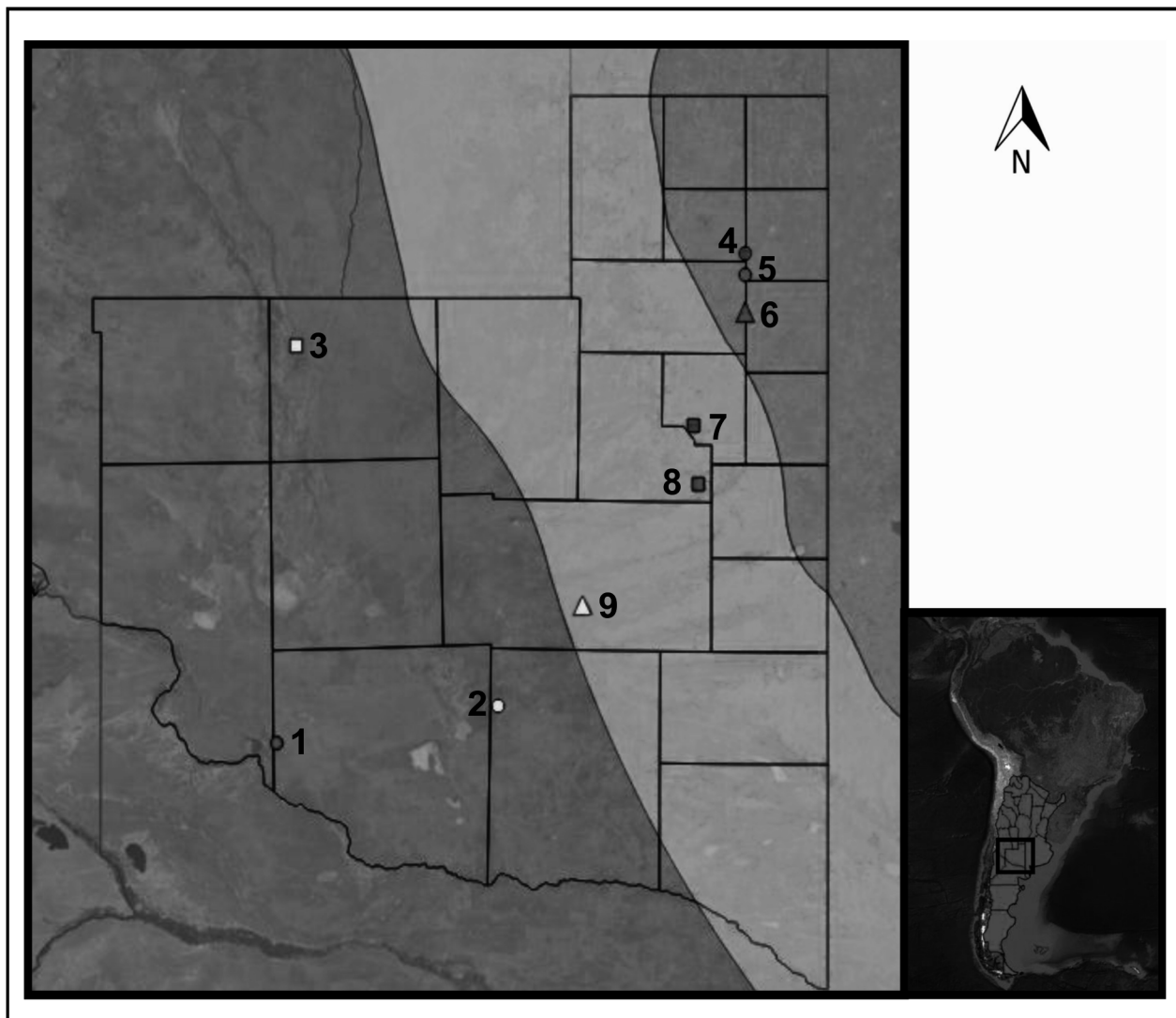
Ten samples were taken at each site, using the following methods: 1) Beating sheet, 2) Light trap, and 3) G-Vac (garden-vacuum). Each point within the site was sampled by each type of trap for one minute, leading to a total of 10 minutes per capture method in each site, except the light tramp.

Firstly, the material was separated and identified to family and genus levels in the laboratory. The material was then specifically identified using dichotomous keys, scientific literature and comparison with collection material

deposited in the Museum of Natural Sciences of La Plata (MLP). The reference material is deposited in the Museum of Natural Sciences of La Plata, Bs. As., Argentina.

For the construction of geographic distribution map we used the program QUANTUM-GIS 2.8.2 (<http://www.qgis.org>) (Fig. 1).

The material was photographed using a Kodak Easy Share camera (12 megapixels) and a binocular microscope Wild M-Stereomicroscope 72. All measurements are in millimeters.



**FIGURE 1.** Location of the province of La Pampa in Argentina and the Southern Cone; distribution of sampling points: red circle, Site 1; yellow circle, Site 2; yellow square, Site 3; purple circle, Site 4; blue circle, Site 5; red triangle, site 6; purple square, Site 7; red square, Site 8; and yellow triangle, Site 9. Phytogeographic regions: Red, Pampean phytogeographic region; Green, Espinal phytogeographic Region; and blue, Monte phytogeographic region.

## Results

A total of 22 species were obtained (Table 2). Of these species, the following were recorded for the first time in the central region of Argentina, province of La Pampa.

### Coreidae

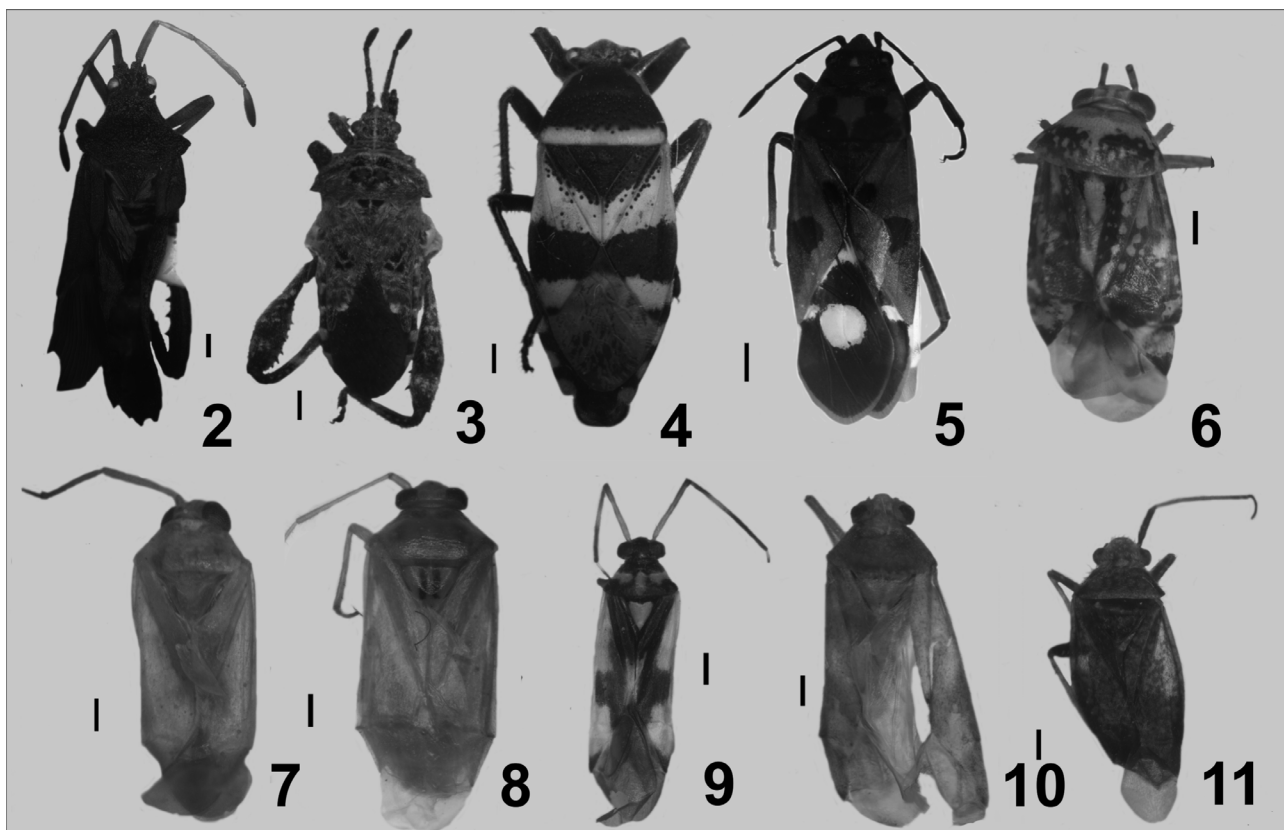
#### Coreinae Leach

## Acanthocerini Bergroth

*Dersagrena subfoveolata* (Berg): Catamarca; Córdoba: Capilla del Monte (30°50'44.10''S 64°31'24.95''W); Entre Ríos: Paranacito (33°42'48.80''S 58°39'42.01''W); Jujuy; La Pampa: Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W); La Rioja; Mendoza; Neuquén; Río Negro: San Antonio Oeste (40°43'38.09''S 64°56'54.61''W); Salta; San Juan; San Luis; Santa Fe; Santiago del Estero; Tucumán.

(Berg, 1892; Bachmann, 1999; Pennington 1920; Pennington 1921; Viana & Williner 1978).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (1♀) G-vac, 30-11-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 2).



**FIGURES 2–11.** Coreidae: 2 *Dersagrena subfoveolata* (Berg) (♂); 3 *Merocoris bergi* Mayr (♂); Largidae: 4 *Largus fasciatus* Blanchard (♂); Lygaeidae: 5 *Lygaeus alboornatus* Blanchard (♂); Miridae: 6 *Dagbertus bahianus* Carvalho (♀); 7 *Dijocaria oculata* Carvalho & Carpintero (♀); 8 *Ganocapsinus argentinus* Carvalho (♀); 9 *Garganus saltensis* (Berg) (♂); 10 *Phytocoris bergi* (Atkinson) (♀); 11 *Phytocoris cylapinus* Carvalho & Gomez (♀). Scale bar 1 mm.

## Meropachynae Stål

### Merocorini Stål

*Merocoris (Merocoris) bergi* Mayr: Córdoba: Calamuchita (32°16'35.47''S 64°38'21.81''W), Río Tercero (32°10'36.35''S 64°06'47.40''W); La Pampa: Casa de Piedra (38°09'27.77''S 67°03'56.14''W); Salta: El Galpón (25°23'00.77''S 64°37'55.83''W); Santa Fe; Santiago del Estero: Añatuya (28°27'55.70''S 62°50'03.28''W).

(Berg, 1879b; Berg, 1883; Kormilev, 1954; Mayr, 1865; Pennington 1920; Pennington 1921).

**New record for the La Pampa:** Casa de Piedra (38°09'27.77''S 67°03'56.14''W) (1♂) red de arrastre, 30-11-2010, Pall J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 3).

## Largidae

### Larginae

#### Largini

*Largus fasciatus* Blanchard: Buenos Aires: Baradero (33°48'12.98''S 59°29'49.76''W), Chasico (38°19'32.43''S 62°39'16.95''W); Catamarca; Córdoba: Alta gracia (31°39'15.82''S 64°25'32.64''W), Cabaña (31°13'02.56''S 64°21'59.84''W), Carlos Paz (31°25'12.77''S 64°29'59.89''W), El Sauce (31°05'52.28''S 64°18'55.88''W), La Granja (31°00'59.41''S 64°15'58.30''W), Los Cisnes (33°23'52.14''S 63°29'03.74''W), Río San José (31°23'29.16''S 64°12'37.46''W), Villa Gral. Belgrano (31°59'02.10''S 64°33'59.72''W); Corrientes; Chaco: Resistencia (27°27'07.72''S 58°58'52.79''W); Entre Ríos: Colón (32°13'34.93''S 58°08'35.81''W), Concordia (31°23'39.69''S 58°02'27.91''W), Diamante (32°04'12.92''S 60°38'55.49''W), La Paz (30°45'34.37''S 59°38'21.67''W); La Pampa: Metileo: (35°52'44.57''S 63°56'21.36''W), Parque Luro: (36°54'21.28''S 64°15'10.52''W); La Rioja: Chilecito (29°09'43.67''S 67°30'02.88''W); Misiones: San Martín (26°52'09.53''S 54°54'40.59''W), Montecarlo (26°33'59.39''S 54°45'57.47''W), San Javier (27°51'45.61''S 55°08'43.09''W); Salta: Güemes (34°30'S 58°45'W); San Luis: Suyuque (33°16'28.68''S 66°23'05.88''W); Santa Fe: Coronda (31°58'12.74''S 60°55'30.56''W); Santiago del Estero: Río Salado (26°22'33.47''S 63°43'10.39''W), Wagner (27°47'58.57''S 64°12'46.00''W); Tucumán.

(Berg, 1878; Bosq, 1937; Blanchard, 1843; Hayward, 1960; Lethierry & Severin, 1894; Pennington, 1921; Quintanilla *et al.*, 1968; Quintanilla *et al.*, 1976; Quintanilla *et al.*, 1981; Viana & Williner, 1972; Viana & Williner, 1978).

**New record for the La Pampa:** Metileo (35°46'36.13''S 63°56'22.41''W) (1♀) G-vac, 14-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP); Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♂ 3♀) G-vac, 16-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 4).

## Lygaeidae

### Lygaeinae Schilling

*Lygaeus alboornatus* Blanchard: Buenos Aires: Cerro Cura Malal (37°43'21.36''S 62°14'18.05''W), Isla Martín García (34°13'06.88''S 58°17'09.47''W), Tandil (37°19'04.62''S 59°09'32.05''W); Córdoba; Corrientes: San Cosme (27°30'59.13''S 58°33'55.14''W); Chubut; Entre Ríos: Paraná (31°44'17.56''S 60.33'41.18''W); La Pampa: Parque Luro (36°54'21.28''S 64°15'10.52''W), Santa Rosa: (36°37'23.31''S 64°17'24.74''W); Jujuy; Salta: Los Cardones National Park (25°03'55.01''S 66°06'14.99''W); Tucumán.

(Berg, 1878; Bergroth, 1894; Blanchard, 1852; Bosq, 1940; Breddin, 1897; Hayward, 1960; Marrero *et al.*, 2008; Pennington, 1921; Quintanilla *et al.*, 1968; Quintanilla *et al.*, 1976).

**New record for the La Pampa:** Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♀) G-vac, 06-12-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP); Santa Rosa: (36°37'23.31''S 64°17'24.74''W) (1♂ 1♀) G-vac, 20-04-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP); Santa Rosa (36°37'23.31''S 64°17'24.74''W) (2♀) G-vac, 20-04-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 5).

## Miridae

### Mirini Hahn

*Dagbertus bahianus* Carvalho: Buenos Aires; La Pampa: Santa Rosa (36°37'23.31''S 64°17'24.74''W); Mendoza; Misiones; Salta; Santa Fe; Tucumán.

(Carpintero & Carvalho, 1993; Carvalho, 1975).

**New record for the La Pampa:** Santa Rosa (36°37'23.31''S 64°17'24.74''W) (1♂) lighth tramp, 07-12-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 6).

*Dijocaria oculata* Carvalho & Carpintero: Córdoba: San Marcos (32°37'52.19''S 62°28'56.61''W); Chaco: National Park (26°49'53.8''S 59°40'67.46''W); Entre Ríos; La Pampa: Lihue Calel National Park: (37°58'50.54''S 65°35'32.85''W).

(Carpintero & Carvalho, 1993; Carvalho & Carpintero, 1991; Schuh, 1995).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (1♀) lighth tramp, 11-12-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 7).

*Ganocapsinus argentinus* Carvalho: La Pampa: Lihue Calel National Park: (37°58'50.54''S 65°35'32.85''W); Río Negro: Choele Choel (39°17'15.70''S 65°39'53.29''W).

(Carpintero & Carvalho, 1993; Coscarón & Carpintero, 1996; Carvalho, 1984; Schuh, 1995).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (1♀) lighth tramp, 11-12-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 8).

*Garganus saltensis* (Berg): Buenos Aires; Chaco; Córdoba; Formosa; Jujuy; La Pampa: Santa Rosa (36°37'23.31''S 64°17'24.74''W); La Rioja; Jujuy; Salta; Santiago del Estero; Tucumán.

(Berg, 1892; Carpintero & Carvalho, 1993; Carvalho, 1959; Coscarón & Carpintero, 1996; Pennington, 1921; Reuter, 1909; Schuh, 1995).

**New record for the La Pampa:** Santa Rosa (36°37'23.31''S 64°17'24.74''W) (2♂3♀) lighth tramp, 29-11-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 9).

*Phytocoris bergi* (Atkinson): Buenos Aires: Tandil (37°19'04.62''S 59°09'32.05''W); Córdoba; La Pampa: Santa Isabel (36°13'55.22''S 66°56'15.19''W); Neuquén: Confluencia (39°48'53.87''S 68°43'06.81''W), Huechulafquen: (39°46'55.51''S 71°13'20.76''W), Lago Paimún (39°42'31.67''S 71°32'47.60''W); Río Negro: Puerto Blest (41°01'56.52''S 71°48'57.47''W), Nahuel Huapi (41°06'00.58''S 71°18'55.90''W); Salta; Tucumán.

(Atkinson, 1890; Berg, 1879b; Carpintero & Carvalho, 1993; Carpintero & Chérot, 2005; Carvalho, 1959; Carvalho & Gomes, 1970; Coscarón & Carpintero, 1996; Pennington, 1921; Schuh, 1995).

**New record for the La Pampa:** Santa Isabel (36°13'55.22''S 66°56'15.19''W) (1♀) lighth tramp, 11-12-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 10).

*Phytocoris cylapinus* Carvalho & Gomez: Buenos Aires: Tandil (37°19'04.62''S 59°09'32.05''W); Chaco: National Park (26°49'53.8''S 59°40'67.46''W); Córdoba; Corrientes; Entre Ríos; La Pampa: Parque Luro (36°54'21.28''S 64°15'10.52''W); Misiones; Tucumán.

(Carpintero & Carvalho, 1993; Carvalho & Gomes, 1970).

**New record for the La Pampa:** Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♂) G-vac, 16-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 11).

## Orthotylini van Duzee

*Cyrtotylus wygodzinskyi* Carvalho: Córdoba; Chaco: Parque Nacional (26°49'53.8''S 59°40'67.46''W); Entre Ríos; La Pampa: Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W); Misiones; Salta; San Luis; Tucumán.

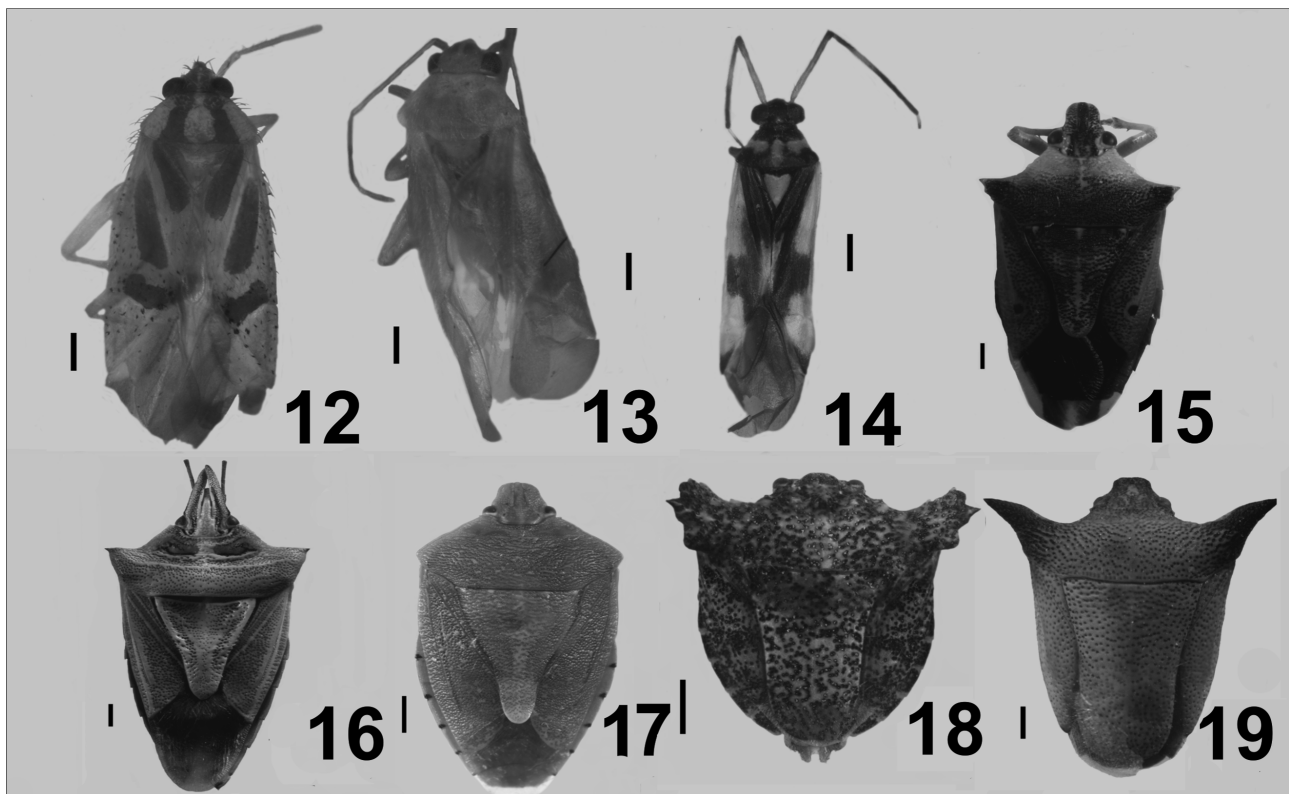
(Carpintero & Carvalho, 1993; Carvalho, 1950; Carvalho, 1958; Coscarón & Carpintero, 1996; Schuh, 1995).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (1♂1♀) lighth tramp, 11-11-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP), Santa Rosa (36°37'23.31''S 64°17'24.74''W) (3♀) lighth tramp, 04-11-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 12).

*Orthotylus flavosparsus* (Sahlberg): Buenos Aires; Córdoba; Entre Ríos; La Pampa: Santa Rosa (36°37'23.31''S 64°17'24.74''W); Mendoza; Neuquén: National Park Lanín (Hua-Hum) (39°50'00.46''S 71°24'59.68''W); Río Negro; Salta; Santa Fe; Tucumán.

(Carpintero & Carvalho, 1993; Carpintero, 1999; Carvalho, 1958; Carvalho & Carpintero, 1986; Sahlberg, 1842; Schuh, 1995).

**New record for the La Pampa:** Santa Rosa (36°37'23.31''S 64°17'24.74''W) (1♀) lighth tramp, 11-12-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 13).



**FIGURES 12–19.** Miridae: 12 *Cyrtotylus wygodzinskyi* Carvalho (♀); 13 *Orthotylus flavosparsus* (Sahlberg) (♀); 14 *Carpinteroa patagonica* Carvalho & Carpintero (♀); Pentatomidae: 15 *Tylospilus nigrobinotatus* (Berg) (♂); 16 *Poriptus filius* Berg (♂); 17 *Chinavia apicicornis* (Spinola) (♂); 18 *Lobepomis peltifera* Berg (♂); 19 *Procleticus corniger* Berg (♂). Scale bar 1 mm.

### Resthenini Reuter

*Carpinteroa patagonica* Carvalho & Carpintero: La Pampa: Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W); Neuquén: National Park Lanín (39°50'00.46''S 71°24'59.68''W); Río Negro; Salta; San Luis. (Carpintero, 1999; Carpintero & Carvalho, 1993; Carvalho & Carpintero, 1990; Schuh, 1995).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (2♂14♀) G-vac, 29-11-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 14).

### Pentatomidae

#### Asopinae Amyot & Serville

*Tylospilus nigrobinotatus* (Berg): Buenos Aires; Córdoba; Corrientes: San Roque (28°34'52.10''S 58°45'07.42''W); Entre Ríos; La Pampa: Parque Luro (36°54'21.28''S 64°15'10.52''W); Misiones; Río Negro: Choele Choel (39°17'15.70''S 65°39'53.29''W), Río Colorado (38°59'37.29''S 64°05'40.97''W); Santa Fe.

(Berg, 1879b; Berg, 1883; Coscarón & Grazia, 2000; Dellapé, Martínez & Coscarón, 2003; Grazia & Schwertner, 2008; Montandon, 1895; Pennington, 1920; Pirán, 1948; Saini & Coll, 1993; Schoutedden, 1907; Thomas, 1992).

**New record for the La Pampa:** Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♀) red de arrastre, 16-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 15).

## Pentatominae Leach

### Carpocorini Mulsant & Rey

*Poriptus filius* Berg: Buenos Aires: Chacabuco (34°38'09.58"S 60°27'42.71"W); Entre Ríos: Departamento o Tala; La Pampa: Metileo (35°46'36.13"S 63°56'22.41"W).

(Bachmann, 1999; Berg, 1883; Coscarón & Grazia, 2000; Grazia & Schwertner, 2008; Kirkaldy, 1909; Pennington, 1920; Quintanilla *et al.*, 1968).

**New record for the La Pampa:** Metileo (35°46'36.13"S 63°56'22.41"W) (1♂ 2♀) red de arrastre, 13-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 16).

### Nezarini Atkinson

*Chinavia apicicornis* (Spinola): La Pampa: Casa de Piedra (38°09'27.77"S 67°03'56.14"W), Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W); Mendoza; Salta.

(Bosq, 1940; Grazia & Schwertner, 2008; La Porta & Avalos, 1993; Pennington, 1919; Pirán, 1948; Rolston, 1983; Spinola, 1852).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W) (2♂4♀) G-vac, 15-04-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP); Casa de Piedra (38°09'27.77"S 67°03'56.14"W) (1♂) lighth trap, 12-04-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 17).

### Procliticini Pennington

*Lobepomis peltifera* Berg: Catamarca: El Rodeo (28°12'59.91"S 65°51'9.39"W), Punta Balasto (26°57'35.74"S 66°08'46.22"W); Chaco; Córdoba: El Sauce (31°05'52.28"S 64°18'55.88"W), Quilino (31°13'10.01"S 64°29'35.69"W); Formosa; Jujuy; La Pampa: Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W), Parque Luro (36°54'21.28"S 64°15'10.52"W); La Rioja; Mendoza; Misiones; Neuquén; Salta; San Juan, San Luis; Santa Fe; Santiago del Estero; Tucumán.

(Berg, 1891; Coscarón & Grazia, 2000; Grazia & Schwertner, 2008; Pennington, 1920; Pirán, 1963; Rider, 1994; Viana & Williner, 1972).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W) (1♂3♀) G-vac, 16-04-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP); Parque Luro (36°54'21.28"S 64°15'10.52"W) (3♀) red de arrastre, 16-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP). (Fig. 18).

*Procliticus corniger* Berg: Catamarca: Belén (27°39'00.41"S 67°01'59.71"W); Córdoba; La Pampa: Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W); La Rioja; Mendoza; Misiones: San Ignacio (27°15'31.39"S 55°32'20.98"W), Santo Pipó (27°08'33.60"S 55°24'45.95"W); Neuquén; San Juan; San Luis; Santa Fe; Santiago del Estero.

(Berg, 1891; Coscarón & Grazia, 2000; Grazia & Schwertner, 2008; Pennington, 1920; Pirán, 1963; Rider, 1994).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54"S 65°35'32.85"W) (1♀) G-vac, 16-04-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 19).

## Reduviidae

### Harpactorinae Amyot & Serville

#### Harpactorini Amyot & Serville

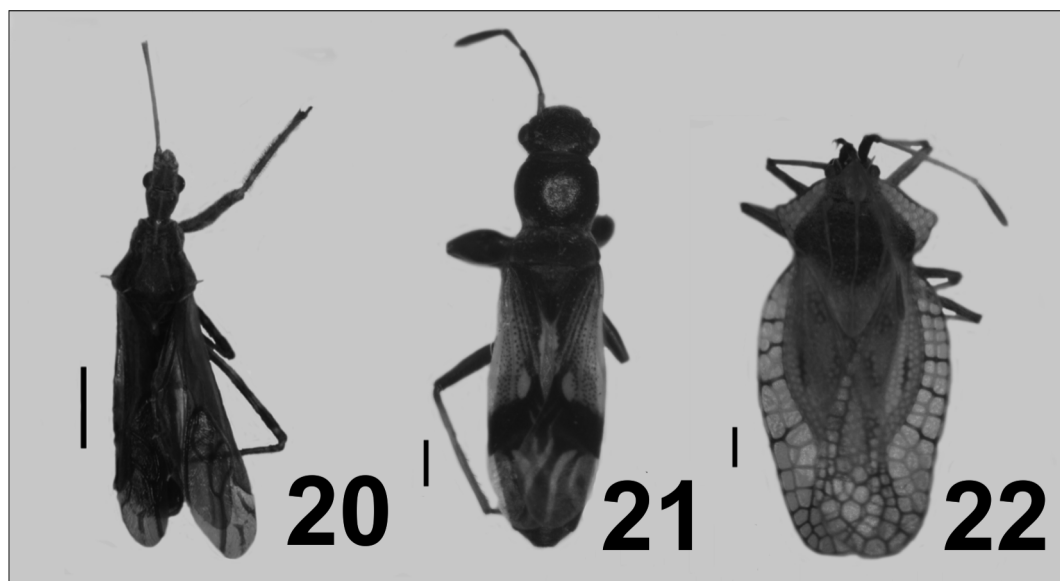
*Atrachelus cinereus crassicornis* (Burmeister): Buenos Aires: Cerro Cura Malal (37°43'21.36"S



62°14'18.05''W), Isla Martín García (34°13'06.88''S 58°17'09.47''W), José C. Paz (34°30'55.63''S 58°43'01.12''W), Luján (34°33'54.40''S 59°06'58.87''W), Miramar (38°16'03.60''S 57°50'49.34''W), Oriente (38°44'28.24''S 60°36'29.71''W), Tigre (34°25'00.06''S 58°33'42.20''W); Catamarca: Andalgalá (27°36'14.71''S 66°19'06.69''W), Cerro Negro (28°16'12.49''S 67°08'16.22''W), Colpe (28°06'18.87''S 66°12'57.97''W); Chaco: Charata (27°13'11.35''S 61°11'20.51''W), Puerto Tirol (27°22'53.09''S 59°05'10.88''W), Resistencia (27°27'07.72''S 58°58'52.79''W); Córdoba: Cabaña (31°13'02.56''S 64°21'59.84''W), Carlos Paz (31°25'12.77''S 64°29'59.89''W), Dean Funes (30°25'27.13''S 64°21'08.24''W), Oncativo (31°54'50.99''S 63°40'58.80''W), Quilino (31°25'57.21''S 64°07'47.87''W), San Francisco (31°25'50.77''S 62°05'18.19''W), Tanti (31°20'17.49''S 64°36'06.22''W), Unquillo (31°14'03.84''S 64°18'59.93''W), Villa Rumipal (32°11'02.61''S 64°28'59.36''W); Corrientes; Entre Ríos; Formosa; Jujuy: Pampa Blanca (24°32'04''S 65°04'36.43''W); La Pampa: Parque Luro: (36°54'21.28''S 64°15'10.52''W), Santa Rosa: (36°37'23.31''S 64°17'24.74''W); La Rioja; Mendoza; Misiones: Iguazú (25°36'01.11''S 54°34'20.85''W); Salta: Güemes (34°30'S 58°45'W), Rosario de la Frontera (25°47'56.89''S 64°58'17.11''W); San Juan: Calingasta (31°20'10.32''S 69°25'14.40''W); Santa Fe: Fontana (31°40'27.06''S 60°37'20.31''W), Reconquista (29°13'07.26''S 59°55'59.11''W); San Luis: Nogolí (33°16'31.71''S 66°16'30.61''W); Santiago del Estero: La Aurora (27°29'37.69''S 64°13'25.93''W), Girardet (27°37'00.21''S 62°09'54.92''W), Quimilí (27°38'43.62''S 62°24'53.24''W).

(Berg, 1879a; Burmeister, 1835; Lethierry & Severin, 1896; Maldonado Capriles, 1972; Maldonado Capriles, 1990; Marrero *et al.*, 2008; Pennington, 1921).

**New record for the La Pampa:** Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♀) red de arratsre, 16-04-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP); Santa Rosa (36°37'23.31''S 64°17'24.74''W) (1♂) red de arratsre, 02-12-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 20).



**FIGURES 20–22.** Reduviidae: 20 *Atrachelus cinereus crassicornis* (Burmeister) (♀); Rhyparochromidae: 21 *Pseudoparomius slateri* Dellapé & Coscarón (♀); Tingidae: 22 *Gargaphia subpilosa* Berg (♀). Scale bar 1 mm.

## Rhyparochromidae

### Myodochini Stål

***Pseudoparomius slateri*** Dellapé & Coscarón: Buenos Aires: Glew (34°52'54.35''S 58°22'45.61''W), Isla Martín García (34°13'06.88''S 58°17'09.47''W), Punta Indio (S36°16'15.65'' W57°15'20.00''), Tornquist (38°15'59.21''S 62°21'19.71''W); Corrientes: Ituzaingó (27°34'08.01''S 56°43'25.98''W), San Roque (28°34'35.52''S 58°42'37.90''W); La Pampa: Parque Luro: (36°54'21.28''S 64°15'10.52''W), Santa Rosa (36°37'23.31''S 64°17'24.74''W); Santa Fe: Rosario (32°57'31.72''S 60°39'40.06''W), Villa Ana (28°29'18.34''S 59°36'33.89''W).

(Bachman, 2012; Dellapé & Coscarón, 2005).

**New record for the La Pampa:** Parque Luro (36°54'21.28''S 64°15'10.52''W) (1♀) G-vac, 02-12-2010, Pall, J.L. & Coscarón M.C. col., Pall J.L. det. (MLP); Santa Rosa (36°37'23.31''S 64°17'24.74''W) (1♂) G-vac, 02-12-2010, Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 21).

**TABLE 2.** List of species and their distribution in phytogeographic regions; X: species present in only one phytogeographic region.

FAMILY	GENUS	SPECIE	MONTE	ESPINAL	PAMPEANA
Coreidae	<i>Dersagrena</i>	<i>subfoveolata</i> (Berg)	X		
Coreidae	<i>Merocoris</i>	<i>bergi</i> Mayr	X		
Largidae	<i>Largus</i>	<i>fasciatus</i> Blanchard		X	X
Lygaeidae	<i>Lygaeus</i>	<i>alboornatus</i> Blanchard		X	X
Lygaeidae	<i>Nysius</i>	<i>simulans</i> Stål	X	X	X
Miridae	<i>Carpinteroa</i>	<i>patagonica</i> Carvalho & Carpintero	X		
Miridae	<i>Cyrtotylus</i>	<i>wygodzinskyi</i> Carvalho	X	X	
Miridae	<i>Dagbertus</i>	<i>bahianus</i> Carvalho	X	X	
Miridae	<i>Dijocaria</i>	<i>oculata</i> Carvalho & Carpintero	X		
Miridae	<i>Ganocapsinus</i>	<i>argentinus</i> Carvalho	X		
Miridae	<i>Garganus</i>	<i>saltensis</i> (Berg)		X	
Miridae	<i>Orthotylus</i>	<i>flavosparsus</i> (Sahlberg)		X	
Miridae	<i>Phytocoris</i>	<i>bergi</i> (Atkinson)	X	X	
Miridae	<i>Phytocoris</i>	<i>cylapinus</i> Carvalho & Gomez		X	
Pentatomidae	<i>Chinavia</i>	<i>apicicornis</i> (Spinola)	X		
Pentatomidae	<i>Lobepomis</i>	<i>peltifera</i> Berg	X	X	
Pentatomidae	<i>Poriptus</i>	<i>filius</i> Berg			X
Pentatomidae	<i>Procliticus</i>	<i>corniger</i> Berg	X		
Pentatomidae	<i>Tylospilus</i>	<i>nigrobinotatus</i> (Berg)		X	
Reduviidae	<i>Atrachelus</i>	<i>cinereus crassicornis</i> (Burmeister)		X	X
Rhyparochromidae	<i>Pseudoparomius</i>	<i>slateri</i> Dellapé & Coscarón		X	
Tingidae	<i>Gargaphia</i>	<i>subpilosa</i> Berg		X	

## Tingidae

### Tinginae Laporte

#### Tingini Laporte

***Gargaphia subpilosa* Berg:** Buenos Aires: Baradero (33°48'12.98''S 59°29'49.76''W), Chacabuco (34°38'09.58''S 60°27'42.71''W), La Plata (34°55'10.90''S 57°57'07.00''W), Tigre (34°25'00.06''S 58°33'42.20''W), San Isidro (34°28'18.45''S 58°31'38.48''W), Vicente López (34°31'31.08''S 58°28'19.00''W); Catamarca; Chaco; Córdoba: Agua de Oro (31°04'01.32''S 64°18'00.05''W), Carlos Paz (31°25'12.77''S 64°29'59.89''W), El Sauce (31°05'52.28''S 64°18'55.88''W); Corrientes; Entre Ríos; Formosa; Jujuy: Urundel (23°33'28.11''S 64°23'50.08''W); La Pampa: Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W); La Rioja; Mendoza: Potrerillo (32°57'01.88''S 69°12'20.40''W); Misiones: San Ignacio (27°15'31.39''S 55°32'20.98''W); Neuquén; Río Negro: Allen (38°57'52.85''S 67°49'53.79''W), Fernández Oro (38°57'00.71''S 67°54'35.76''W); Salta: Pocitos (24°20'21.72''S 67°00'45.50''W), San Pedro (22°37'41.33''S 65°06'53.50''W); Santa Fe; San Juan; Santiago del Estero; Tucumán: San Javier (26°47'01.38''S 65°22'59.57''W).

(Bachmann, 1999; Berg, 1879a; Bosq, 1937; Bosq, 1940; Coscarón, 1996; Drake, 1928; Drake & Ruhoff, 1965; Hayward, 1960; Monte, 1938; Monte, 1939; Monte, 1940; Montemayor & Coscarón, 2005; Montemayor & Dellapé, 2010; Pennington, 1921; Torres, 1950; Viana & Williner, 1972).

**New record for the La Pampa:** Lihue Calel National Park (37°58'50.54''S 65°35'32.85''W) (1♀) G-vac, 13-04-2010, Coscarón M.C. & Pall, J.L. col., Pall J.L. det. (MLP). (Fig. 22).

A total of 22 species were found, in the Monte phytogeographic province, only 6 representative species of the same were obtained; in the Espinal phytogeographic province only six representative species were recorded in this province; while for the Pampeana phytogeographical province only one representative species of this phytogeographic provinces was obtained (Table 2).

## Conclusion

The faunistic contribution on new records from the center part of Argentina broadens current knowledge on the geographic distribution of Heteropteran fauna for the Argentina. This is traduced in providing new areas of distribution, expanding several distributional ranges, filling distributional gaps, in the Southern Cone and also its presence and correlation with phytogeographic areas of endemism with the adequate collection data.

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