



## Membracidae types (Hemiptera-Membracoidea) housed at the Museo de La Plata entomological collection (Argentina)

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### Abstract

Type material of 42 species from 15 genera of Membracidae is housed at the Entomology Division of the Facultad de Ciencias Naturales y Museo of La Plata National University, collected mainly in Argentina (21) but also in Uruguay (8), Bolivia (3), Brazil (10), Ecuador (1) and Venezuela (1). The types listed herein correspond to species described by G. S. de Andrade (3 spp.), C. Berg (12 spp.), F. W. Goding (1 sp.), A. M. Marino de Remes Lenicov (25 spp), and S. H. McKamey (1 sp.). The collection contains 230 type specimens. Comparison of their original descriptions with the label information supports the existence of 20 holotypes, 13 allotypes, 156 paratypes, 5 lectotypes, 15 paralectotypes and 21 syntypes. Lectotype and paralectotypes of *Cyphonia ancoralis* Berg, *Melusina rugifrons* Berg, *Smiliorhachis proxima* Berg are designated, as well as syntypes of *Acutalis variabilis* Berg, *Cyphonia bonaeriensis* Berg, *Cyphonia colenophora* Berg, *Darnis amangosi* Berg, *Darnis (Stictipelta) luisae* Berg, *Hebetica arechavaletae* Goding, *Pyranthe acaciae* Berg and *P. frustatoria* Berg.

The following information is given for each species: original names of the species, bibliographic references, type category, number of specimens, gender, Museo de La Plata code numbers, and transcription of data from labels (country, province, locality, date of collection, collector's name, and hosts). Information about subsequent nomenclatural changes with corresponding references, the state of preservation of the specimens in each series and pictures of each Berg species is also provided.

**Key words:** Catalogue, nomenclature, taxonomy, Homoptera

### Material tipo de Membracidae (Hemiptera-Membracoidea) depositado en la colección del Museo de La Plata (Argentina)

### Resumen

La presente contribución provee información acerca del material tipo correspondiente a 42 especies (15 géneros) de Membracidae, que fueron recolectadas en su mayoría en Argentina (21) pero también en Uruguay (8), Bolivia (3), Brasil (10), Ecuador (1) y Venezuela (1), y depositadas en las colecciones de la División Entomología de la Facultad de Ciencias Naturales y Museo de la Universidad Nacional de La Plata. Los ejemplares tipo aquí tratados corresponden a especies descritas por G. S. de Andrade (3 spp.), C. Berg (12 spp), F. W. Goding (1 sp.), A.M.Marino de Remes Lenicov (25 spp), y S. H. McKamey (1 sp.). Hay 230 especímenes en la colección, de los cuales, después de comparar la información proveniente de las descripciones originales con la de las etiquetas, se reconoció la existencia de verdaderos tipos (20 holotipos, 13 alotipos, 156 paratipos, 5 lectotipos, 15 paralectotipos y 21 sintipos). Fueron designados lectotipos y paralectotipos de *Cyphonia ancoralis* Berg, *Melusina rugifrons* Berg, *Smiliorhachis proxima* Berg y sintipos de *Acutalis variabilis* Berg, *Cyphonia bonaeriensis* Berg, *Cyphonia colenophora* Berg, *Darnis amangosi* Berg, *Darnis (Stictipelta) luisae* Berg, *Hebetica arechavaletae* Goding, *Pyranthe acaciae* Berg and *P. frustatoria* Berg. Para cada especie se provee la siguiente información: nombre original de la especie, referencias bibliográficas, categoría del tipo, número de especímenes, sexo de los ejemplares, número de código del Museo de La Plata, transcripción de los datos mencionados en las etiquetas. También se incorpora información de cambios nomenclaturales producidos a posteriori

con sus respectivas referencias, el estado de preservación de los ejemplares de la serie e ilustraciones de todas las especies descritas por Berg.

**Palabras clave:** Catálogo, Tipos entomológicos, Membracidae, Argentina

## Introduction

The Cicadomorpha encompass the leafhoppers and treehoppers (Membracoidea), by far the most diverse plant-feeding hemipteran superfamily. Cicadomorpha also includes the cicadas (Cicadoidea) and spittlebugs (Cercopoidea). Because of their piercing-sucking plant feeding behavior, these insects are an important group of plant pathogen vectors (Nielson 1968). The superfamily Membracoidea includes the leafhoppers – Cicadellidae - the largest of all hemipteran insect families, the recently erected family Myerslopiidae (Hamilton 1984, 1999), and three families of treehoppers: Membracidae, Melizoderidae, and Aetalionidae (Deitz and Dietrich, 1993; Dietrich *et al.* 2001). These families comprise ca. 25,000 described species, grouped into over 50 subfamilies, 150 tribes, and 3,000 genera (Oman *et al.* 1990; McKamey 1998; Dietrich *et al.* 2001).

The Membracidae are the second most speciose family among the Cicadomorpha, with over 3,100 described species (McKamey 1998).

The purpose of this catalogue is to provide a record of the membracid types present in the collections of the División Entomología, Museo de La Plata, Argentina as part of a series of contributions on the Auchenorrhyncha housed there (Paradell *et al.* 2008; Paradell *et al.* 2009 in press).

The present contribution offers updated information on the 42 spp. of 15 genera of the subfamilies Darninae Amyot & Serville, Membracinae Rafinesque and Smiliinae Stål. The 230 type specimens studied by the specialists G. S. Andrade, C. Berg, F. W. Goding, A. M. Marino de Remes Lenicov and S. H. McKamey, were examined. To stabilize the classification, lectotypes and paralectotypes for *Cyphonia ancoralis* Berg, *Melusina rugifrons* Berg and *Smiliorhachis proxima* Berg were designated, as well as syntypes for *Acutalis variabilis* Berg, *Cyphonia bonaeriensis* Berg, *Cyphonia colenophora* Berg, *Darnis "amangosi"* Berg, *Darnis (Stictipelta) luisae* Berg, *Hebetica arechavaletae* Goding, *Pyranthe acaciae* Berg and *P. frustatoria* Berg.

Publications documenting the type material housed at different museums and other scientific institutions are recommended by the 4<sup>th</sup> edition of the International Code of Zoological Nomenclature (Article 72 F 4, ICZN, 1999).

## Material and methods

For each species we provide the following information:

Names of the species

Bibliographic references

Category of types

Gender and number of the specimens/category

Four-digit code number followed by a slash and second number that indicates the type category, according to the present status and rules of the Museo de La Plata Entomological Collection (MLP): /1 holotype and lectotype; /2, allotype; /3 and subsequent numbers, paratypes and paralectotypes; /1 and subsequent numbers, syntypes.

Data on the label: exact transcription of the text on the labels associated with each specimen: country, province, locality, date of collection, collector's name, and host, when indicated.

Additional information on the type specimens is included as "Remarks".

All the type specimens included in this catalogue bear a rectangular printed red label such as those used throughout the collection, as well as the original hand-written labels, particularly those corresponding to species erected by Berg.

The label of each specimen was compared with the information in the original description of the species to verify the type status of the material. Specimens labelled as “typus” by the author of the species, and which were the basis for published descriptions, are here designated as syntypes. Lectotypes and paralectotypes were designated when enough information was available to select a specimen as bearer of the name from among a single or several specimens of the series; we also include specimens labelled “*cum type comparate*” when the comparison was made by the authors of the species themselves.

Full bibliographic references for species and pictures of each Berg species, are provided.

The abbreviations and complete data of the other repositories are listed as follows: IBSP, Instituto Biológico de Sao Paulo, Brazil; DZP, Departamento de Zoología Universidad de Paraná, Brazil; FML, Fundación Miguel Lillo, Tucumán, Argentina; and MBA, Museo Argentino de Ciencias Naturales Bernardino Rivadavia, Argentina. The higher classification follows McKamey (1998).

## Results

### Suborder Auchenorrhyncha

#### Infraorder Cicadomorpha

#### Family Membracidae

#### Subfamily Darninae

#### *Darnis* Fabricius

- “*amangosi*”, *Darnis* Berg

( Fig. 4–6)

Syntype, female (numbered 34), MLP no. 1747/1; Banda Oriental; date and collectors unknown.

**Remarks:** The original description of this species has not been found in Berg’s published papers known to us. Thus, the name is apparently a manuscript name, not valid under the ICZN. The specimen 1747/1 labelled as “typus” by Berg, here is provisionally considered a syntype (ICZN, art. 73.2.1).

- *luisae*, *Darnis* (*Stictopelta*) Berg

(Figs. 7, 8)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 289–290.

Syntype, female, MLP no 1748/1; Argentina, Córdoba; 1883, Stempelmann leg.

Syntype, nymph, (numbered 206), MLP no 1748/2; same data as type.

**Remarks:** The specimens labelled as “typus”, here are considered as syntypes (ICZN, art. 73.2.1). The syntype 1748/1 has the right tegmen glued to the label. The series includes a female specimen from Córdoba, n° 1748/3, that it is labelled by Berg as “*cum type comparat*”.

This species was synonymized with *Stictopelta indeterminata* (Walker, 1858) by Funkhouser (1927: 159).

#### *Hebetica* Stål

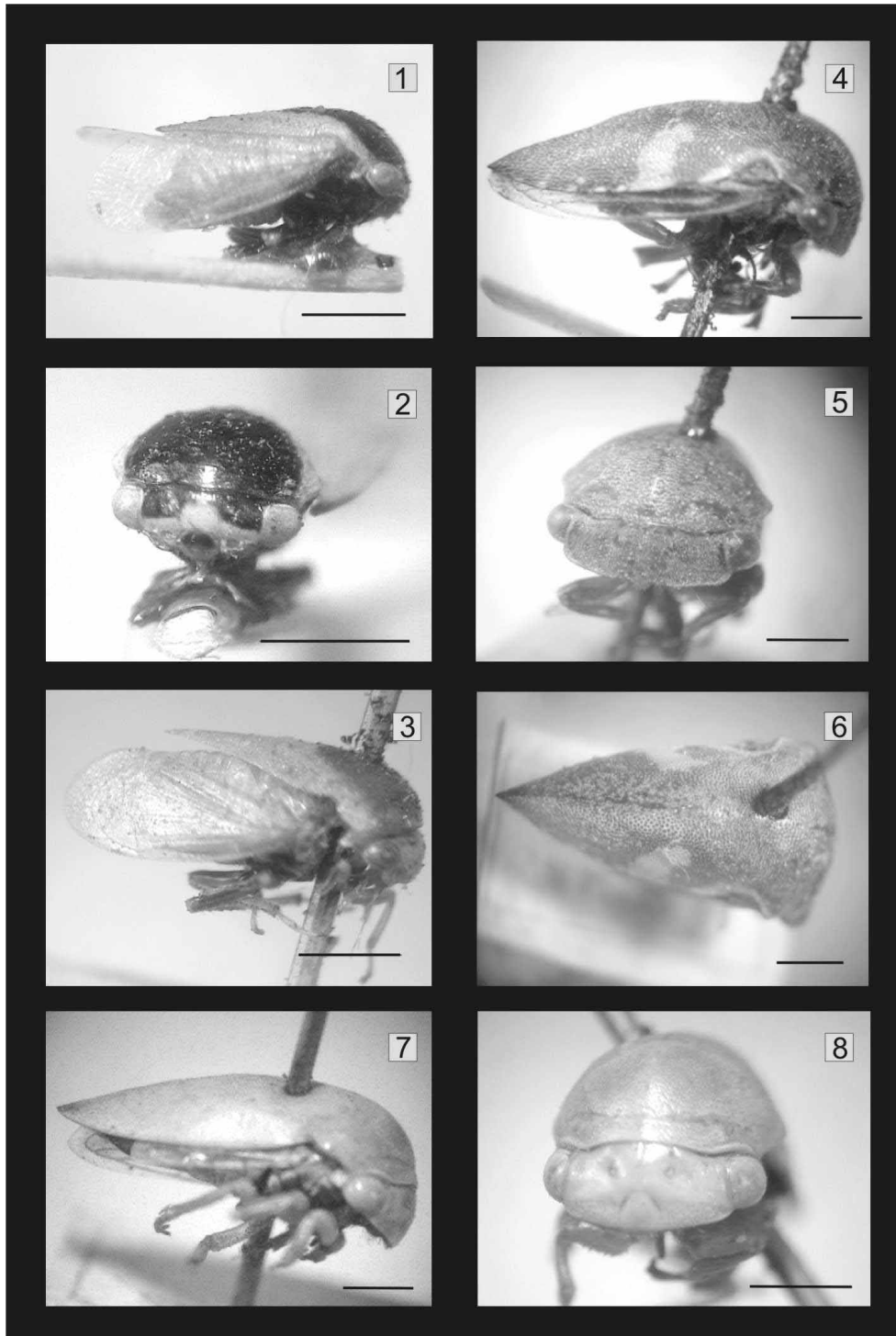
- *arechavaletae*, *Hebetica* (Goding)

1914. *Entomological News*, XXIV, 400.

Syntype, female (numbered 31), MLP no. 1749/1; Uruguay; date and collectors unknown.

**Remarks:** The syntype lacks left metathoracic leg, and tarsi of mesothoracic legs and right metathoracic leg. The specimen labelled as “typus”, here is considered as a syntype (ICZN, art. 73.2.1).

This species was originally described as belonging *Phormophora* Stål by Goding (1914) and transferred to *Hebetica* Stål by Goding (1929: 212).



**FIGURES 1–8.** Subfamily Darninae. 1–3, *Acutalis variabilis* Berg. Syntype male 1746/1: 1, lateral view; 2, frontal view. Syntype female 1746/2: 3, lateral view; 4–6, *Darnis “amangosi”* Berg. Syntype female 1747/1: 4, lateral view; 5, frontal view; 6, dorsal view; 7–8, *Darnis (Stictopelta) luisae* Berg. Syntype female 1748/1: 7, lateral view; 8, frontal view. Scale bar: 1mm.

*Pyranthe* Stål• *acaciae*, *Pyranthe* Berg

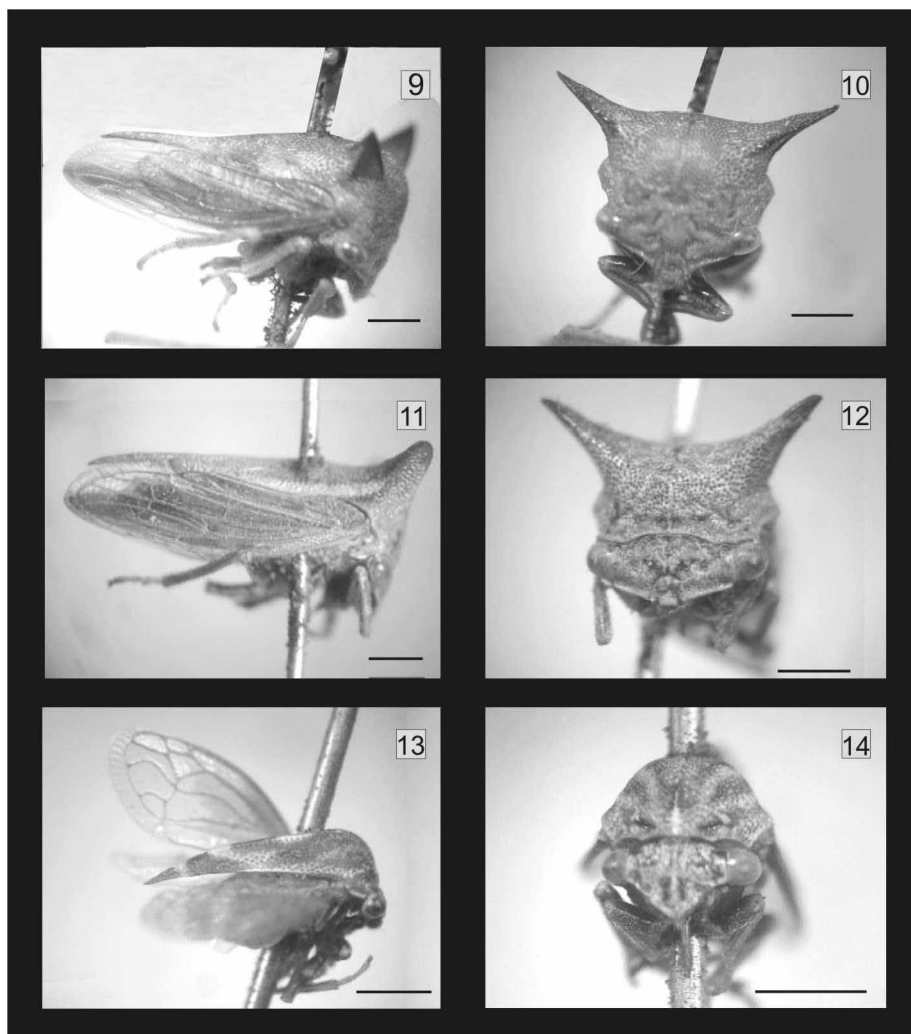
(Figs. 9, 10)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 290–291.

Syntypes (9), males (3), females (3), nymphs V (3), MLP n° 1750/1-9; Uruguay, Banda Oriental; date and collectors unknown.

**Remarks:** The specimens labelled as “typus” by Berg, here are considered syntypes (ICZN, art. 73.2.1).

This species was transferred to *Sundarion* Kirkaldy by Funkhouser (1927: 162) and proposed as a synonym of *Sundarion apicalis* (Germar) by Goding, (1929: 241).



**FIGURES 9–14.** Subfamily Darninae. 9–10, *Pyranthe acaciae* Berg. Syntype female 1750/4: 9, lateral view; 10, frontal view; 11–12, *Pyranthe frustratoria* Berg. Syntype female 1752/1: 11, lateral view; 12, frontal view. Subfamily Heteronotinae. 13–14, *Smiliorhachis proxima* Berg. Lectotype male 1754/1: 13, lateral view; 14, frontal view. Scale bar: 1mm.

• *frustratoria*, *Pyranthe* Berg

(Figs. 11, 12)

1880. *Anales de la Sociedad Científica Argentina*, IX, 296–297.



Syntype, female, MLP no. 1752/1; Argentina, Tucumán; date and collectors unknown.

**Remarks:** The specimen labelled as “typus” by Berg, here is considered as a syntype (ICZN, art. 73.2.1). The syntype has right leg II broken.

This species was transferred to *Sundarion* Kirkaldy by Funkhouser (1927: 163), and proposed as a synonym of *Callicentrus bonasia* (Fabricius) by Metcalf & Wade (1965: 686). McKamey (1998: p. 11) suggested that this synonymy is probably erroneous at the tribal level and requires reexamination.

### ***Taunaya* Pinto da Fonseca**

- ***gibosa*, *Taunaya* Remes Lenicov**

1973. *Revista de la Sociedad Entomológica Argentina*, 34 (1–2), 137.

Holotype, female, MLP no. 3549/1; Argentina, Misiones, Dto Concepción, Santa María; XI-1956, Viana leg. Paratype, female (with wings in slide), MLP n° 3549/3; same data as holotype.

**Remarks:** The holotype female has the abdomen separated. The original publication indicates that two paratype females are housed in MLP, but there is only one.

### **Subfamily Heteronotinae**

#### ***Smiliorachis* Faimaire**

- ***proxima*, *Smiliorachis* Berg**

(Figs. 13, 14)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 292–293.

Lectotype, male (numbered 566), MLP no 1754/1; Uruguay, Banda Oriental; date unknown; Berg coll.

Paralectotype, female (numbered 566), MLP n° 1754/3; same data as lectotype.

Paralectotypes (4), males (2) (1754/4 numbered 407), females (2) (1754/5 numbered 407), MLP no. 1754/4-7; same data as lectotype.

**Remarks:** All the specimens labelled as “typus” by Berg (1745/3-7), here are considered as paralectotypes (ICZN, art. 74.1.1).

The paralectotypes 1754/4-6 have genitalia dissected in vials with glycerine. The lectotype (specimen 1745/1) and paralectotype 1754/3 are on the same pin.

### **Subfamily Membracinae**

#### ***Alchisme* Kirkaldy**

- ***neuquina*, *Alchisme* Remes Lenicov**

1978. *Neotrópica*, 24 (72), 113–115.

Holotype, male, MLP no. 3639/1; Argentina, Neuquén, San Martín de los Andes; 6-I-1978, Gentili coll., on *Azara microphylla*.

Allotype, female, MLP no. 3639/2; same data as holotype.

Paratypes (17), males (9), females (8), MLP no. 3639/3-19; same data as holotype.

**Remarks:** Holotype and paratypes 3639/7-9 have the right forewing mounted on cards, allotype and paratypes 3639/10-11, 14–19 have the left forewing mounted on cards; paratype 3639/9 lacks an abdomen; paratype 3639/18 has the genitalia dissected in a vial with glycerine.

In the original publication the author indicates that 20 paratypes are deposited at MLP, but there are only 17.

### *Metcalfiella* Goding

- *nigrihumera*, *Metcalfiella* McKamey

1991. *Agricultural Research Service. North Carolina State University at Raleigh Technical Bulletin*, 294, 68.

Paratype, female, MLP no. 4278/3; S.H. McKamey lot #86-0103-13; Ecuador, Azuay Challuabamba, 11rd km NE, Cuenca; 2400 m., 3-Jan-1986, McKamey leg.

### Subfamily Smiliinae

#### *Acutalis* Fairmaire

- *variabilis*, *Acutalis* Berg

(Figs. 1–3)

1879. *Anales de la Sociedad Científica Argentina*, VIII, 244.

Syntypes (2), male and female, MLP no. 1746/1-2; Argentina, Buenos Aires; date and collector unknown.

Syntype, female, MLP no. 1746/3; Banda Oriental; date and collector unknown.

**Remarks:** The specimens labelled as “typus” by Berg, here are considered as syntypes (ICZN, art. 73.2.1).

This species was synonymized with *Micrutalis ephippium* (Burmeister, 1836) by Funkhouser (1927: 218).

#### *Anisostylus* Caldwell

- *brasiliensis*, *Anisostylus* Remes Lenicov

1971. *Revista de la Sociedad Entomológica Argentina*, 33 (1–4), 127–128.

Paratype, male, MLP no. 5267/3; Brasil, S. Bocaina; I-1969, Alvarenga leg.

Paratype, female, MLP no. 5267/4; Brasil, S. Bocaina 1500 m S.J. Barreiro- SP.; 4-XI-1965, F. M. Oliveira leg.

**Remarks:** In the original publication the author did not indicate the institution of deposition of the holotype male, allotype female and one paratype male.

This species was transferred to *Paraceresa* by Kopp & Yonke (1979: 29).

- *trifasciata*, *Anisostylus* Remes Lenicov

1971. *Revista de la Sociedad Entomológica Argentina*, 33 (1–4), 128–131.

Holotype, male, MLP no. 5266/1; Argentina, Chaco, Laguna Blanca; 7-XII-1939, Biraben-Bezzi leg.

Allotype, female, MLP no. 5266/2; same data as holotype.

**Remarks:** The holotype and allotype have genitalia dissected in vials with glycerine and with legs partially broken. In the original publication the repositories of five paratypes, two males and two females from Salta and one male from Misiones are not given.

This species was transferred to *Paraceresa* by Kopp & Yonke (1979: 29).

### *Centrogonia* Stål

#### • *vianai*, *Centrogonia* Remes Lenicov

1970. *Revista de la Sociedad Entomológica Argentina*, 32 (1–4), 124–126.

Holotype, male, MLP no. 3497/1; Argentina, Jujuy, Laguna Yala; 30-I-1958, Torres-Ferreyra leg.

Allotype, female, MLP no. 3497/2; Argentina, Catamarca; date unknown. Torres-Ferreyra leg.

Paratypes (40), males (37), females (3) MLP no. 3497/3–42; same data as holotype.

**Remarks:** Paratypes 3497/4–5 and 34 have the genitalia dissected in vials with glycerine; paratype 3497/35 has the head separated.

*Penichrophorus vianai* was proposed as new combination by Kopp & Yonke (1979: 39).

### *Ceresa* Amyot & Serville

#### • *alboguttata*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 129–131.

Holotype, female, MLP no. 3503/1; Argentina, Misiones, Dos de Mayo; 12-XII-1962, Biraben leg.

Paratype, female, MLP no. 3503/3; Argentina, Misiones, Caraguatay; I-1960, Ronderos-Trotta leg.

Paratype, female, MLP no. 3503/4; Bolivia, Anazani; date and collectors unknown.

**Remarks:** The holotype and paratype 3503/3 have genitalia dissected in vials with glycerine. The allotype male from Bolivia, Cochabamba, El Palmar, 1000 m, 18-I-1958, Monros-Wyogdzinski coll., mentioned in the original publication has not been found.

#### • *albesignata*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 77–79.

Holotype, male, MLP no. 3498/1; Venezuela, Cagua, Estado de Aragua; 22-V-1951, Ronderos leg.

Allotype, female, MLP no. 3498/2; Venezuela, Estado de Trujillo, Trujillo; 19-II-1952, Ronderos leg.

**Remarks:** The allotype has genitalia dissected in a vial with glycerine. The date indicated on the holotype label is not coincident with those from the original publication, which we consider a *lapsus* because other data are identical.

#### • *amazonica*, *Ceresa* Andrade

2002. *Revista Brasileira de Zoologia*, 19 (Supl. 2), 40–43.

Paratype, female, MLP no. 2298/3; Brasil, Departamento de Zool. UF-Paraná coll., coleção Campos Seabra. Brasil, Amazonas, Tabatinga; V-1957, Sousas Lima leg.



**Remarks:** Other labels added to the specimen: *Ceresa affinis* Fairmaire, 1846, A.M. Sakakibara det. (1970) and *Ceresa mulsa* Remes Lenicov 1973, Remes Lenicov det. (1971).

• *atrata*, *Ceresa* Remes Lenicov

1973, *Acta Zoológica Lillioana*, 30, 124–126.

Allotype, female, MLP no. 3560/2; Argentina, Santiago del Estero, Lago Muyo; IV-1957, Golbach leg.

**Remarks:** Only a vial with glycerine with the allotype genitalia is preserved. In the original publication it was not mentioned that the allotype is deposited at MLP.

• *calosa*, *Ceresa* Andrade

2002. *Revista Brasileira de Zoologia*, 19 (Supl. 2), 43–46.

Paratype, female, MLP no. 2297/3; Brasil, Paraná, Curitiba, 900 m.s.n.m.; 9-X-1966, Dep. Zoología/UF-Paraná leg.

**Remarks:** Other label added to the specimen: *Ceresa patruelis* Stål, Remes Lenicov det. (1971).

• *chacoana*, *Ceresa* Remes Lenicov

1973. *Acta Zooógica Lillioana*, 30, 111–113.

Holotype, male, MLP no. 3502/1; Argentina, Misiones, Concepción, Santa María; XI-1947, Viana leg.

Allotype, female, MLP no. 3502/2; same locality as holotype; V-1944, Viana leg.

Paratype, female, MLP no. 3502/3; Argentina, Chaco, Basaí; 12-XI-1941, Ogloblin leg.

Paratype, male, MLP no. 3502/4; Argentina, Neuquén, Catandil; 25-II-1942, Biraben leg.

Paratype, female, MLP no. 3502/5; Brasil; date unknown, Berg leg.

**Remarks:** Paratypes 3502/4-5 with genitalia dissected in vial with glycerine. The date and gender of the paratype 3502/3 disagree with information provided in the original publication.

• *fasciatithorax*, *Ceresa* Remes Lenicov.

1973. *Acta Zoológica Lillioana*, 30, 119–121.

Holotype, male (numbered 11862), MLP no. 3499/1; Bolivia, Viana leg.; date unknown.

**Remarks:** The holotype has genitalia dissected in a vial with glycerine. In the original publication it is not mentioned that the holotype is deposited at MLP.

• *maculipennis*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lillioana*, 30, 95–97.

Holotype, male, MLP no. 3501/1; Argentina, Corrientes, Manantiales; XII-1946, Denier leg.

Paratype, male, MLP no. 3501/3; Argentina, Córdoba, Monte Cristo; 31-XII-1944, Martínez leg.

Paratype, male, MLP no. 3501/4; Argentina, Chaco, Resistencia; 8-XII-1938, Denier leg.

**Remarks:** The holotype and paratype 3501/3 have genitalia dissected in vials with glycerine; parameres are missing in the holotype. Paratype 3501/4 lacks its abdomen and was erroneously cited as a female in the original publication.

• *nigripectus*, **Ceresa Remes Lenicov**

1973. *Acta Zoológica Lillioana*, 30, 80–82.

Holotype, male, MLP no. 3506/1; Argentina, Santiago del Estero, Chilca; 7-VI-1945, Maldonado leg.

Allotype, female, MLP no. 3506/2; Argentina, Salta, e/ Galpón y Trancas; 1-V-1958, Olivier leg.

Paratypes (4), males (2), females (2), MLP no. 3506/3-6; Argentina, Sgo. del Estero, Chilca; same data as holotype.

Paratype, male, MLP no. 3506/7; Argentina, Santa Fe, Candiotti; 1-XI-1939, Biraben-Bezzi leg.

Paratypes (4), males (2), females (2), MLP no. 3506/8-11; Argentina, Córdoba, Bajo Grande; 15-VII-1939, CMAM.leg.

Paratype (4), males (2), females (2), MLP no. 3506/12-15; Argentina, Formosa; 11-II-1964, Togo leg.

Paratypes (4), male (1), females (3), MLP no. 3506/16-19; Argentina, Buenos Aires, Junín. On potatoes; 11-II-1959, Torres-Dadone leg.

**Remarks:** Paratypes 3506/7, 15 have genitalia dissected in vials with glycerine.

• *paranaensis*, **Ceresa Remes Lenicov**

1976. *Neotrópica*, 22 (67), 47.

Holotype, male, MLP no. 3633/1; Brasil, Paraná, Campo Mourao; 1954, collector unknown.

Paratypes (3), male, females (2), MLP no. 3633/3-5; Brasil, Estado de Santa Catarina, Río Vermelho; date unknown, Dirings leg.

Paratype, female, MLP no. 3633/6; Brasil, Sao Paulo; VII-1936, D. Braz leg.

**Remarks:** The holotype and paratype 3633/3 have genitalia dissected in vials with glycerine. The holotype has the left supra-humeral horn bent and the apical pronotal process and apex of the forewings broken. The paratype 3633/3 has the apex of the left forewing broken.

• *paulistana*, **Ceresa Remes Lenicov**

1976. *Neotrópica*, 22 (67), 45–47

Holotype, male, MLP no. 3632/1; Brasil, San Pablo, Leme; XII-1936, D. Braz leg.

Paratype, female, MLP no. 3632/3; Brasil, J. Fora M.G.; date unknown, Estación Biológica de San Pablo, Araujo leg.

**Remarks:** The holotype has genitalia dissected in a vial with glycerine. The apex of the right forewing is broken and the right prothoracic, mesothoracic and metathoracic legs are missing.

• *pauperata*, **Ceresa Berg**

(Figs. 15–17)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 287–288.

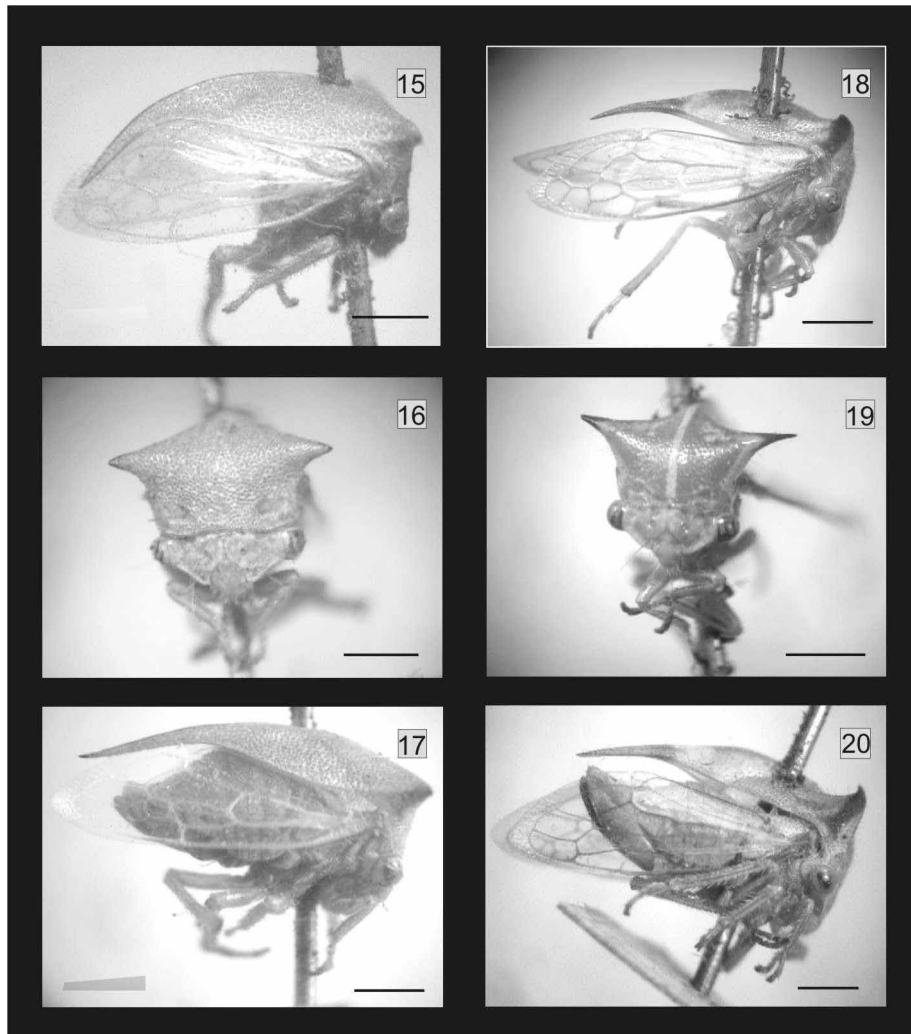
Lectotype, female, MLP no. 1742/1; Uruguay, Banda Oriental; date unknown, Berg leg.: designated by Andrade (2004).

Paralectotype, male, MLP no. 1742/3; same data as lectotype; designated by Andrade (2004).

Paralectotype, female (numbered 16), MLP no. 1742/4; Argentina, Buenos Aires, Chacabuco; date unknown, Lynch leg.

Paralectotypes (2), male and female, MLP no. 1742/5-6; Banda Oriental Uruguay; date and collector unknown.

**Remarks:** Specimens 1742/4-6, also labelled as “typus” by Berg, are also considered a paralectotypes. The paralectotypes 1742/3-4 have genitalia dissected in vials with glycerine; paralectotype 1742/3 lacks its aedeagus.



**FIGURES 15–20.** Subfamily Smiliinae. 15–17, *Ceresa pauperata* Berg. Lectotype female 1742/1: 15, lateral view. Paralectotype male 1742/3: 16, frontal view; 17, lateral view. 18–20, *Ceresa uruguayensis* Berg. Lectotype male 1743/1: 18, lateral view; 19, frontal view. Paralectotype female 1743/3: 20, lateral view. Scale bar: 1mm.

• *peruensis*, *Ceresa Remes Lenicov*

1973. *Acta Zoológica Lilloana*, 30, 82–85.

Paratype, male, MLP no. 3500/3; Brasil, Amazonas, Manaus, R o Preto; 15-VII-1946, Duret leg.

Paratype, female, MLP no. 3500/4; Bolivia, Santa Cruz; date unknown.

**Remarks:** The paratypes have genitalia dissected in vials with glycerine. The date of collection of paratype 3500/3 was erroneous in the original publication and it was not indicated that the paratype female 3500/4 is deposited at the Estación Experimental Agrícola, Tucumán, Argentina.

This species was proposed as a synonym of *Ceresa distans* Butler, 1877 by Andrade (2004: 692), which may itself be a synonym of *Ceresa vitulus* (Fabricius) (McKamey 1998).

• *pyramidalis*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 122–124.

Holotype, male, MLP no. 3543/1; Brasil, Paraná, Foz do Iguazú; 3-XII-1966, Exc. Departamento de Zoología Universidad de Paraná, Brasil (DZP).

**Remarks:** The holotype has dissected genitalia in a vial with glycerine. The pronotum has the apex of the horns slightly crushed. In the original publication it was not mentioned that the holotype is deposited at MLP.

• *platycera*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 106–108.

Paratypes (3), males (2), female, MLP no. 3544/3-5; Brasil, Santa Isabel de Morro, VF Paraná. VI-1961, Alvarenga leg.

**Remarks:** In the original publication it was not mentioned that the paratypes are deposited at MLP.

• *prosocera*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 126–129.

Holotype, male, MLP no. 4108/1; Uruguay, Rivera, Rta 27, Arroyo Cuñapirú; 20-II-1962, M. A. Monné and P. R. San Martín leg.

Allotype, female, MLP no. 4108/2; same data as holotype.

Paratype, female, MLP no. 4108/3; same data as holotype.

**Remarks:** Only the abdomen and the genitalia dissected of the holotype and the genitalia of the allotype are preserved in vials with glycerine. The other paratype female mentioned in the original publication has not been found in the MLP collection.

• *remeslenicovae*, *Ceresa* Andrade

2002. *Revista brasileira de Zoológica*, 19 (Supl. 2), 48.

Paratype, male, MLP no. 2299/3; Argentina, Jujuy; 1-IV-1911, P. Jörgensen leg.

Paratype, female, MLP no. 2299/4; Argentina, Chaco; 30-III-1931, Costa leg.

**Remarks:** Paratype 2299/3 has genitalia dissected in a vial with glycerine. The paratypes were labelled as *Ceresa integra* Walker by Remes Lenicov.

• *stylata*, *Ceresa* Remes Lenicov

1973. *Acta Zoológica Lilloana*, 30, 74–77.

Allotype, female, MLP no. 3496/2; Argentina, Misiones, Santa Inés; 13-XII-1941, Biraben-Bezzi leg.  
 Paratype (1), female, MLP no. 3496/3; Buenos Aires, Sierra de la Ventana; 21-I-1958, Ronderos leg.  
 Paratype (1), female, MLP no. 3496/4; Buenos Aires, Abra de la Ventana, Sierra Ventana, vivero; 21-I-1958, Ronderos leg.

**Remarks:** Two paratype females from Sierra de la Ventana and Bolivia, mentioned in the original publication, have not been found in the MLP collection.

• *uruguayensis*, **Ceresa Berg**

(Figs. 18–20)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 286–287.

Lectotype, male, MLP no. 1743/1; Banda Oriental; XI-1882, Berg leg.; designated by Andrade (2004)

Paralectotype, female, MLP no. 1743/3; same data as lectotype; designated by Andrade (2004).

Paralectotypes (4), males (2), females (2), MLP no 1743/4-7; same data as lectotype.

**Remarks:** Specimen 1743/5, labelled as “typus” by Berg, is also considered a paralectotype; it has the left horn of the pronotum broken. The lectotype and paralectotype 1743/3 have genitalia dissected in vials with glycerine.

*Cyphonia Laporte*

• *ancoralis*, **Cyphonia Berg**

(Figs. 21, 22)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 285.

Lectotype, female (numbered 232), MLP no. 1737/1; Argentina, Tucumán; date and collector unknown.

Paralectotype, male (numbered 233), MLP no. 1737/3; same data as lectotype.

**Remarks:** Specimens 1737/1 and 3, labelled as “typus” by Berg, here are designated as lectotype and paralectotype respectively (ICZN, art. 74.1.1). The paralectotype has genitalia dissected in a vial with glycerine. The lectotype has the medial lateral spine of the pronotal process broken; pro- and mesothoracic legs missing tarsi, metathoracic legs missing tibiae and tarsi. The paralectotype has the posterior pronotal process broken, and the left forewing missing.

• *bonaerensis*, **Cyphonia Berg**

(Figs. 23, 24)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 240.

Syntype (3), males (2), female, MLP no. 1738/1-3; Argentina, Buenos Aires; date unknown, Berg leg.

**Remarks:** The specimens labelled as “typus” by Berg, are here considered syntypes (ICZN, art. 73.2.1).

This species was proposed as a synonym of *Cyphonia* (*Cyphonia*) *capra* (Burmeister, 1833) by Metcalf & Wade (1965: 752).

• *colenophora*, **Cyphonia Berg**.

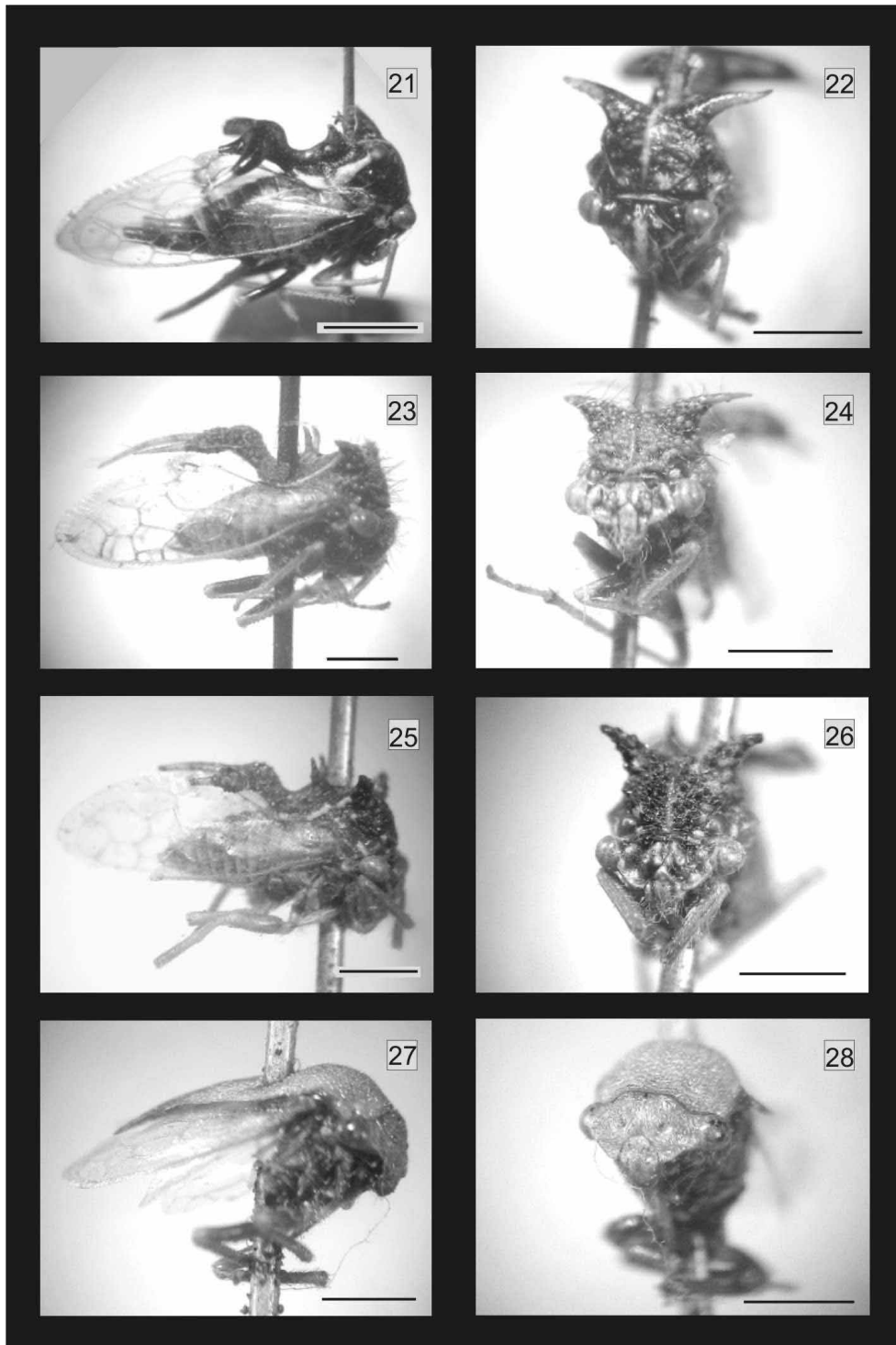
(Figs. 25, 26)

1879. *Anales de la Sociedad Científica Argentina*, VIII, 239–240.

Syntype, male, MLP no. 1740/1; Argentina, Buenos Aires, Baradero; date unknown, Lynch leg.

**Remarks:** The specimen labelled as “typus”, is here considered a syntype (ICZN, art. 73.2.1).

It has the apex of left forewing broken; missing right mesothoracic leg, left mesothoracic tarsus, and right metathoracic tarsus, left metathoracic tibia and tarsus.



**FIGURES 21–26.** Subfamily Smiliinae. 21–22, *Cyphonia ancoralis* Berg. Lectotype female 1737/1: 21, lateral view; 22, frontal view; 23–24, *Cyphonia bonaeriensis* Berg. Syntype male 1738/1: 23, lateral view; 24, frontal view; 25–26, *Cyphonia colenophora* Berg. Syntype male 1740/1: 25, lateral view; 26, frontal view; 27–28, *Melusinella rugifrons* (Berg). Lectotype male 1745/1: 27, lateral view; 28, frontal view. Scale bar: 1mm.



***Melusinella* Metcalf**• ***rugifrons*, *Melusina* Berg**

(Figs. 27, 28)

1883. *Anales de la Sociedad Científica Argentina*, XVI, 288.

Lectotype, male (numbered 234), MLP no. 1745/1; Argentina, Buenos Aires; date unknown, Berg leg.

**Remarks:** The specimen labelled as “typus” by Berg, is here designated as the lectotype (ICZN, art. 74.1.1). The lectotype has genitalia dissected in a vial with glycerine. It is missing its left forewing, and the prothoracic and mesothoracic legs and the left metathoracic tarsus.This species was transferred to *Melusinella* by Metcalf & Wade (1965: 827).***Paraceresa* Kopp & Yonke**• ***deltae*, *Stictocephala* Remes Lenicov**1973. *Neotrópica*, 19 (59), 82–84.

Holotype, male (numbered 28961), MLP no. 3553/1; Argentina, Buenos Aires, San Fernando; date and collectors unknown.

**Remarks:** The holotype has genitalia dissected in a vial with glycerine. On the same pin there is a white label with the number 28961 within a red square.*Paraceresa deltae* was proposed as new combination by Kopp & Yonke (1979: 29).• ***pallidinervis*, *Stictocephala* Remes Lenicov**1973. *Revista de la Sociedad Entomológica Argentina*, 32 (1–4), 121–122.

Holotype, male, MLP no. 3545/1; Argentina, Salta, Dep. de la Frontera, Balboa; 15-VI-1933, CMAM. leg.

Allotype, female, MLP no. 3545/2; Argentina, Santiago del Estero, Dep. Capital, Santa María; 10-VI-1949, Maldonado leg.

Paratypes (9), males (2), females (7), MLP no. 3545/3-11; same data as holotype.

Paratypes (3), males (2), female, MLP no. 3545/12-14; Santiago del Estero, Quimili; 9-XII-1939, Biraben-Bezzi leg.

Paratypes (5), males (4), females (2), MLP no. 3545/15-19; Santiago del Estero, Beltrán; 9-X-1940, R. Maldonado leg.

Paratype, male, MLP n° 3545/20; Santiago del Estero, Beltrán; 9-X-1940 M.A.M. leg.

Paratypes (3), females, MLP no. 3545/21-23; Santiago del Estero, Girardet; 9-XII-1939, Biraben-Bezzi leg.

Paratype, female, MLP no. 3545/24; Jujuy; 30-I-1946, Biraben leg.

Paratypes (2), females, MLP no. 3545/25-26; Formosa, Clorinda; 13-II-1944, Denier leg.

Paratype, female, MLP no. 3545/27; Misiones, San Ignacio; XII-1946, J.T.Montes leg.

Paratype, female, MLP no. 3545/28; Catamarca, Andalgalá; 3-II-1939, Biraben-Scott leg.

Paratypes (3), male, females (2), MLP no. 3545/29-31; Chaco, Colonia Castelli; 16-V-1936, Denier leg.

Paratypes (14), males (4), females (10), MLP no. 3545/32-45; Chaco, Las Breñas; 10-VII-1949, Mallo leg., on malvaisco.

Paratype, male, MLP no. 3545/46; Córdoba, Villa Allende; 6-VI-1952, Argemi leg.

Paratypes (2), male and female, MLP no. 3545/47-48; Corrientes, Mburucuyá; 16/23/XI-1957, Biraben leg.

**Remarks:** Paratypes 3545/4-5, 12-16, 27, 29-33 and 36 have genitalia dissected in vials with glycerine.*Paraceresa pallidinervis* was proposed as new combination by Kopp & Yonke (1979: 29).

• *punctata*, *Stictocephala* Remes Lenicov

1973. *Neotrópica*, 19 (59), 84–86.

Holotype, male, MLP no. 3550/1; Argentina, Misiones, Loreto; 1935, Ogloblin leg.

Allotype, female, MLP no. 3550/2; same data as holotype.

Paratype, male, MLP no. 3550/3; same data as holotype.

Paratype, male, MLP no. 3550/4; Argentina, Misiones, San Ignacio; 8-XII-1941, Biraben-Bezzi leg.

Paratype, male, MLP no. 3550/5; Argentina, Misiones; 1973, Kormilev leg.

Paratype, female, MLP no. 3550/6; Argentina, Misiones; 1973, Kormilev leg.

**Remarks:** The holotype, allotype and paratypes 3550/4-5 have genitalia dissected in vials with glycerine.

This species was proposed as a synonym of *Paraceresa unguicularis* (Stål) by Kopp & Yonke (1979: 29).

*Spissistilus* Caldwell

• *chacoensis*, *Spissistilus* Remes Lenicov

1973. *Revista de la Sociedad Entomológica Argentina*, 34 (1–2), 53–55.

Holotype, male, MLP no. 3552/1; Argentina, Misiones, San Ignacio; XII-1946, J.T.Montes leg.

Allotype, female, MLP no. 3552/2; Argentina, Salta, Río Curanavi; 29-IV-1949, Kormilev leg.

Paratypes (2), females, MLP no. 3552/3-4; same data as allotype.

**Remarks:** The holotype and paratype 3552/4 have genitalia dissected in vials with glycerine. The holotype is missing its abdomen, the prothoracic and mesothoracic tibiae and tarsi and right metathoracic leg; paratype 3552/3 has the posterior pronotal process, apex of forewing and right tarsus of prothoracic legs broken; 3552/4 has the left humeral angle of the pronotum and legs broken, with only the left metathoracic femur remaining. The other two female paratypes mentioned in the original description have not been found in the MLP.

• *spinosus*, *Spissistilus* Remes Lenicov

1973. *Revista de la Sociedad Entomológica Argentina*, 34 (1–2), 51–53.

Holotype, male, MLP no. 3551/1; Argentina, Salta, Orán; XII-1954, Birabén leg.

Paratype, female, MLP no. 3551/3; Argentina, Misiones, Iguazú; data unknown.

Paratype, female, MLP no. 3551/4; Argentina, Salta, Río Curanavi; 29-IV-1949, Kormilev leg.

**Remarks:** The holotype and paratype 3551/4 have genitalia dissected in vials with glycerine. The holotype lacks right metathoracic tibia and tarsus; paratype 3551/3 has the posterior pronotal process and forewing broken; paratype 3551/4 is missing the right forewing, and tibia and tarsus of metathoracic legs.

The paratype female from Jujuy, Palpalá, XI-1946, Aczel leg., and the paratype from Tucumán mentioned in the original description as housed in MLP, have not been found.

*Stictocephala* Stål

• *ornithisca*, *Stictocephala* Remes Lenicov

1978. *Neotrópica*, 24 (72), 111–116.

Holotype, male, MLP no. 3638/1; Brasil, Bahía, Bomfim; VIII-1939 M.C. Leite leg.

Allotype, female, MLP no. 3638/2; same data as holotype.

**Remarks:** The holotype and allotype have genitalia dissected in a vial with glycerine. The holotype is missing its left forewing and left metathoracic leg metatarsus.

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