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LOPES S. M., ASSUMPÇÃO, M. **Blattaria from Museu de La Plata, Argentina: New records for *Blaberus affinis* Jurberg, Albuquerque, Rebordões, Gonçalves & Felipe, 1977 and *Blaberus scutatus* Saussure & Zehntner, 1894 (Blaberidae, Blaberinae).** Biota Neotropica. 17(3): e20170381. <http://dx.doi.org/10.1590/1676-0611-BN-2017-0381>

Abstract: The habitus of the males of seven species of *Blaberus* that belong to the Blattaria collection of the La Plata Museum from Argentina (of which two are new occurrences for the country) are illustrated and are classified into the appropriate groups. Information on their collection sites, synonyms and updated geographic distribution is also provided. In total, 27 *Blaberus* specimens were studied and will be returned to the collection of the Entomology from the Museu de La Plata, Buenos Aires, Argentina.

Keywords: Collection, La Plata Museum, Blattaria, new records.

Blattaria do Museu de La Plata, Argentina: Novos Registros para *Blaberus affinis* Jurberg, Albuquerque, Rebordões, Gonçalves & Felipe, 1977 and *Blaberus scutatus* Saussure & Zehntner, 1894 (Blaberidae, Blaberinae)

Resumo: Os habitus dos machos de sete espécies de *Blaberus* que pertencem ao Museu de La Plata na Argentina (dos quais duas são novas ocorrências) são ilustrados e assinalados em grupos apropriados. Informação sobre seus locais de coleta, sinônimos e sua distribuição geográfica atual são também citadas. No total, 27 espécimens de *Blaberus* foram estudados e serão acondicionados à Divisão do Museu de La Plata, Buenos Aires, Argentina.

Palavras chave: Coleção, Museu de La Plata, Blattaria, nova ocorrência.

Introduction

The genus *Blaberus* was described by Serville (1831), who designated *Blatta giganteus* Linnaeus, 1758 as type-species. The males of the genus have the following characteristics: large individuals, 45-88 mm; usually with small cerci, not reaching the posterior margin of the supranal plate; subgenital plates with two similar styles, simple, and small, genital hook on the right side. Females with atrium enlarged, where the eggs are incubated. In a literature review of the genus, Lopes & Oliveira (2013) listed 20 species, including them into three groups that were based on the male internal genitalia: the atropos, brasilianus and giganteus groups. They also described one new group based on the female (macurus group). Intra and interspecific variations among the species were defined with respect to habitus, morphology of the head and the pronotum, and genital characters. The following species were included in the atropos group: *B. amazonensis* Lopes & Oliveira, 2013, *B. atropos* (Stoll, 1813), *B. colombianus* Lopes & Oliveira, 2013, *B. ducky* Jurberg et al., 1977, *B. parabolicus* Walker, 1868, *B. paulistanus* Lopes & Oliveira, 2000, *B. matogrossensis* Rocha e Silva & Aguiar, 1977, *B. neomatogrossensis* Lopes & Oliveira, 2013,

B. peruvibolicus Lopes & Oliveira, 2013 and *B. yuracianus* Lopes & Oliveira, 2013. In the brasilianus group, the following species were included: *B. affinis* Jurberg, R. S. Albuquerque, Rebordões, Gonçalves & Felipe, 1977, *B. chacoensis* Lopes & Oliveira, 2013, *B. neofusiformis* Lopes & Oliveira, 2013, *B. parafusiformis* Lopes & Oliveira, 2013, *B. nigrocephalicus* Lopes & Oliveira, 2013, *B. scutatus* Saussure & Zehntner, 1894, *B. valleyanus* Lopes & Oliveira, 2013. No grupo giganteus are included *B. giganteus* (Linnaeus, 1758), *B. nigromaculatus* Lopes & Oliveira, 2013. Roth (1969) also included *B. minor* Saussure, 1864 in brasilianus group.

Beccaloni (2014), in his "on line" catalog, listed only 19 species in the genus.

In this contribution, the habitus of the males of seven species of *Blaberus* are illustrated and the species are assigned to one of the following groups 1) the atropos group (*B. atropos*, *B. neomatogrossensis*) and 2) the brasilianus group (*B. affinis*, *B. scutatus*, *B. neofusiformis*, *B. parafusiformis* and *B. minor*). Two new records for *B. affinis* and *B. scutatus* are given. The collection sites, synonyms and updated geographic distribution are also provided.

Material and Methods

The specimens were analyzed morphologically following routine techniques developed in the laboratory and described by Lopes & Oliveira (2000). The terminology for the genital parts, literature and taxonomic classification were based on Roth (1970, 1976 and 2003). The phylogenetic position of the genus follows Khambampati, 1995 and Klass & Meier, 2006. After analysis, the genital parts were stored in microvials containing glycerin and were stored next to the specimen on the same entomological pin, following Gurney et al (1964). In total, 27 *Blaberus* specimens were studied and identified and will be returned to the collection of the Entomology of the Museu de La Plata, Buenos Aires, Argentina (MLP).

Results

- 1) **The atropus group**- species in this group lack a hook shaped or tumor-like growth at the apex of the median sclerite (Roth 1976). Truncated or rounded projections or crests are present only of the left side of the prepuce, which are much larger than the spines of the right side. Preputial spines are often arranged in a single series, but may also be in a double or partially double series on the right side, in which case they are more numerous than those on the left side.

Blaberus atropus (Stoll, 1813)

(Figure 1a)

B. atropus Stoll, 1813:4 (*Blatta*); Saussure, 1864: 233-234; Brunner von Wattenwyl, 1865: 22, 23, 40, 44, 372, 375, 376, 377, 410, 415; Walker, 1868: 2, 4, 5, 6, 7; Saussure & Zehntner, 1894: 118; Rehn, 1903:131,288; Kirby, 1904:164; Hebard, 1921:217; Rehn & Hebard, 1927:261-162; Hebard, 1931; Princis, 1946:145-146; Princis & Kevan, 1955:159, 167; Princis, 1958:75; Bruijning, 1959: 3,6-7; Princis, 1963:131-132; Rocha e Silva-Albuquerque, 1964:5; Vanschuytbroeck, 1969:5; Roth, 1969:217-250; Rocha e Silva, 1982:3; Beccaloni, 2014 <http://blattodea.speciesfile.org>; Grandcolas, 2008:43; Lopes & Oliveira, 2013:82

Material examined: 1 ♂ e 1 ♀ Venezuela, Delta Amacuro, Araguaimujo, 12/VIII/1964, without collector.

Distribution: São Domingos, Jamaica, Guyana, Suriname, Trinidad, Tobago bay, Cuba, Mexico, Venezuela, Colombia, Chile, Brazil (Rio de Janeiro, Rondônia, Amazonas, Pará, São Paulo).

Blaberus neomatogrossensis Lopes & Oliveira, 2013

(Figure 1b)

Blaberus neomatogrossensis Lopes & Oliveira, 2013:86

Material examined: Paratypes 2 ♂, Venezuela, Guárico, S. Juan de los Morros, Cuevas de Los Morritos, 3/IX/1961, Bordon col.

Distribution: Brazil (Mato Grosso); Venezuela (Guárico).

- 2) **The brasilianus Group** – This group includes species whose male genitalia lack a hook-shaped projection or a tumor-like growth. The prepuccial spines are numerous on the left and right sides and are generally arranged in a row.

Blaberus affinis Jurberg, R.S. Albuquerque, Rebordões, Gonçalves & Felipe, 1977

(Figure 1c)

B. affinis Jurberg, R.S. Albuquerque, Rebordões, Gonçalves & Felipe, 1977: 539-540, figs. 5-15; Lopes & Oliveira, 2000:3; Beccaloni, 2014. <http://blattodea.speciesfile.org>; Pellens & Grandcolas, 2008:49; Lopes & Oliveira, 2013:88

Material examined: 1 ♂ Argentina, Salta, Dto. Victoria, 17/VII/1933, P. Denier col.

Distribution: Brazil (Rio de Janeiro, Mato Grosso, Goiás, São Paulo).

New record: Argentina, Brazil (Ceará, Sergipe).

Blaberus parafusiformis Lopes & Oliveira 2013

(Figure 1d)

Blaberus parafusiformis Lopes & Oliveira, 2013:90

Material examined: 1 ♂, Paratype. Brazil. Mato Grosso, without data, Museu de La Plata, Scardinsky col.

Distribution: Brazil (Mato Grosso, Rio de Janeiro, São Paulo, Rondônia, Goiás) Argentina.

Blaberus minor Saussure, 1864

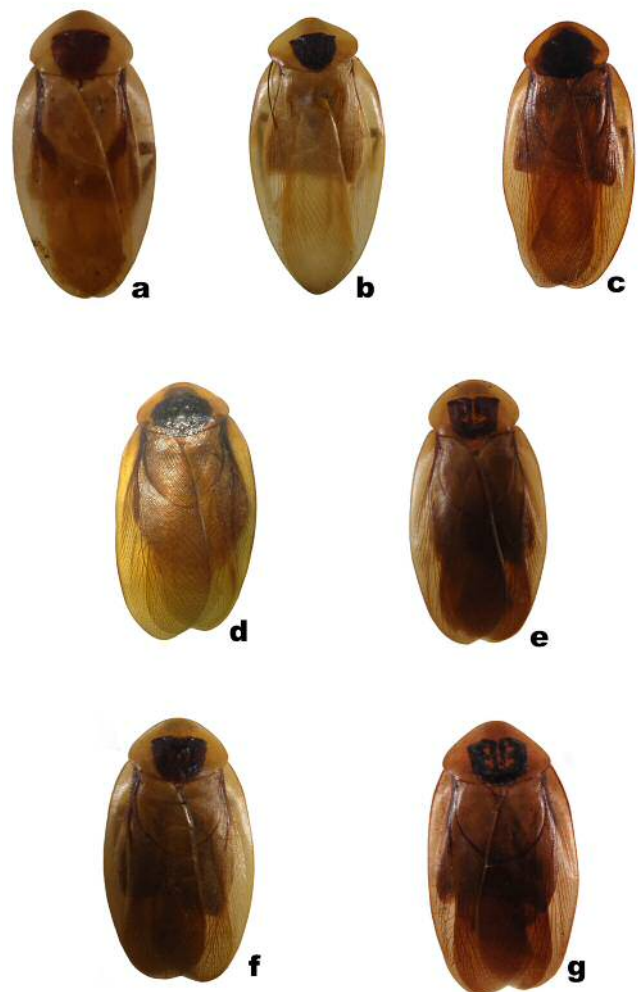
(Figure 1e)

Blaberus minor Saussure, 1864:347; Beccaloni, 2014.<http://blattodea.speciesfile.org>

B. fraterna Saussure, 1864-65: 238-242; Walker, 1868:2-7; Kirby, 1904: 165; Hebard, 1931:261; Princis, 1963:130; Roth, 1970:312-313, 319; Jurberg; R.S. Albuquerque; Rebordões, Gonçalves & Felipe, 1977:545-547 Princis, 1963:130; Pellens & Grandcolas, 2008:50; Beccaloni, 2014.<http://blattodea.speciesfile.org>

Material examined: 1 ♂ Argentina (Formosa), 31/10/1940, P. Denier col.

Distribution: Brazil, Paraguay, Argentina and Bolivia



Figures 1 Habitus. a. *Blaberus atropus* (Stoll, 1813); b. *Blaberus neomatogrossensis* Lopes & Oliveira, 2013; c. *Blaberus affinis* Jurberg, R.S. Albuquerque, Rebordões, Gonçalves & Felipe, 1977; d. *Blaberus parafusiformis* Lopes & Oliveira, 2013; e. *Blaberus minor* Saussure, 1864; f. *Blaberus neofusiformis* Lopes & Oliveira, 2013; g. *Blaberus scutatus* Saussure & Zehntner, 1894.

Blaberus neofusiformis Lopes & Oliveira, 2013

(Figure 1f)

Blaberus neofusiformis Lopes & Oliveira, 2013:89

Material examined: 1♂ Paratype. Argentina, Jujuy, 23-28/II/1945, Biraben col.; 1♂ Paratype, Argentina, Salta, Juramento, Dept. Robles, 02/XI/1939; 1♂ Paratype, Argentina, Salta, Orán, 5/VI/1947, Denner col.; 1♂ e 1♀ Paratype, Argentina, Jujuí, Santa Bárbara Palmar, V/1947, Biraben col.

Distribution: Brazil (Ceará, Pernambuco, São Paulo, Goiás), Argentina

Blaberus scutatus Saussure & Zehntner, 1894

(Figure 1g)

B. scutatus Saussure & Zehntner, 1894:119 (*Blabera*); Princis, 1963:132; Rocha e Silva-Albuquerque, 1964:5; Roth, 1969:220-221,228; Vanschuyetbroecker, 1969: 6; Roth, 1970:312, 319; Beccalloni, 2014: <http://blattodea.speciesfile.org>; Pellens & Grandcolas, 2008:44; Lopes & Oliveira, 2013:92

Material examined: 1♂ Argentina, Salta, Juramento, 02/XI/1939, without collector; 2♂ Argentina, Corrientes, 15-30/II/1959, Biraben col.; 1♂ Argentina, Formosa, Mojon de Fierro, 11/XII/1939. P. Denier col.; 1♀ Argentina, Formosa, 15/XI/1942, M. Birabén col.; 2♂ Argentina, Estancia de La Amalia, Resistencia Chaco, 13/IX/1955, E. Martin M. Calvan col.; 1♂ Argentina, Chaco, XII/1913. M. Currens Leg; 2♂ and 2♀ Argentina, Chaco, Estancia Anello, Cam a. Zapallar 10-15/III/1959, Birabén col.; 2♂ e 2♀. Argentina, Córdoba, Los Cocos “El Piquillin”, 17/II/1944, Sta Pritchard; 1♂. Argentina, Museu de La Plata.

Distribution: BRAZIL (Piauí, Ceará, Minas Gerais, Rio Grande do Norte, Pernambuco, Sergipe, Bahia, Rio de Janeiro), Peru, Paraguay.

New record: Argentina**Author Contributions**

Sonia Maria Lopes: substantial contribution in the concept and design of the study; contribution to data analysis and interpretation; contribution to manuscript preparation and critical revision.

Mariana Assumpção: substantial contribution in the concept and design of the study.

Conflicts of interest

The authors declares that they have no conflict of interest related to the publication of this manuscript.

References

- BECCALONI, G.W. 2014. Cockroaches Species File Online. Version 5.0/5.0. World Wide Web electronic publication. <<http://blattodea.speciesfile.org>> [accessed 17/01/17].
- GURNEY, A.B., KRAMER, J. P. & STEYSKAL, G.C. 1964. Some Techniques for the Preparation, Study and Storage in Microvials of Insect Genitalia. *Annals of the Entomological Society of America*, Washington 57(2):240-242.
- KHAMBHAMPATI, S. 1995. A phylogeny of cockroaches and related insects based on DNA sequence of mitochondrial ribosomal RNA genes. *Proceedings of the Academy of Natural Sciences of Philadelphia* 92:2017-2020.
- KLASS, K.D. & MEIER, R. 2006. A phylogenetic analysis of Dictyoptera (Insecta) based on morphological characters. *Entomologische Abhandlungen* 63:3–50. *Konowia* 10: 257-285.
- LOPES, S.M. & OLIVEIRA, E.H. 2000. Espécie nova de *Eublaberus* Hebard, 1919 do Estado de Goiás, BRASIL e notas sobre *E. marajoara* Rocha e Silva-Albuquerque, 1972 (Blaberidae, Blaberinae). *Boletim Museu Nacional Rio de Janeiro, Nova Série, Zool.* 433:1-5.
- LOPES, S.M. & OLIVEIRA, E.H. 2013. New group, new species and new records from Brazil of the atropos, brasilianus and giganteus groups (Blattaria, Blaberidae, Blaberinae). *Biota Neotropica*, vol. 13, no. 2 (on line)
- ROTH, L.M. 1969. The male genitalia of Blattaria I. *Blaberus* spp. (Blaberidae Blaberinae). *Psyche* 76 (3): 217-250
- ROTH, L.M. 1970. The male genitalia of Blattaria IV. Blaberidae: Blaberinae. *Psyche* 77(2):217-236.
- ROTH, L.M. 1976. The male genitalia of Blattaria. I. *Blaberus* spp. (Blaberidae: Blaberinae). *Psyche* 76: 217-250
- ROTH, L.M. 2003. Systematics and Phylogeny of Cockroaches (Dictyoptera, Blattaria). *Oriental Insects* 37: 1-186.
- SERVILLE, J. G.A. 1831. *Revue méthodique des insectes de l'ordre des Orthoptères. Annales des Sciences Naturelles, Zoologie et Biologie Animale* 22: 166–167.

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