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# An annotated list of the Blattodea (Insecta) described by Henri de Saussure. Part 1: the Corydiidae

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**Abstract:** Henri de Saussure described 32 species of cockroaches currently placed in the family Corydiidae, some of them in collaboration with Leo Zehntner. These species are listed alphabetically with an account of the type specimens in the Muséum d'histoire naturelle de Genève. The location of type specimens in other museums is given where known. The current binominal combination for each species is provided.

Keywords: Cockroaches - Geneva - London - Mexico.

### INTRODUCTION

Henri de Saussure (1829-1905) was a prolific Genevan naturalist who described over three thousand species and many higher taxa (Hollier & Hollier, 2013). His interest in cockroaches began with his expedition to the Antilles and Mexico in 1854-1856 (Hollier & Hollier, 2012), and his first publications on the group were descriptions of species he had captured during his trip, or specimens sent to him by François Sumichrast, a Swiss naturalist who had accompanied Saussure on his exhibition but remained in Mexico when Saussure returned to Geneva. He returned to this insect group in the 1890s, partly working with the young Swiss entomologist Leo Zehntner (1864-1961) who acted as Saussure's assistant before going on to a distinguished career as a tropical applied entomologist (Hollier & Hollier, 2018). Saussure (alone and with Zehntner) is the author of 578 species level names in the Blattodea. The early descriptions are generally rudimentary and in most of his descriptions Saussure did not designate holotypes or even enumerate the number of specimens he had studied. He did not always state where the specimens were deposited.

Saussure described 32 species currently placed in the family Corydiidae. These are listed in the following.

# ARANGEMENT AND FORMAT

The species are listed alphabetically. The format for each is:

*specific epithet* Author(s), publication: page [Original generic placement].

Type locality as given in the original description. Type series given in the original description.

Other information about provenance. Number of specimens in the MHNG. Specimen: "Label data" [format of label]. Following the recommendations of Ohl & Oswald (2004) the condition of each specimen is noted.

Location of material in the MHNG Blattodea collection. The whereabouts of other type specimens (if known). Currently valid binomen of taxon (following Beccaloni, 2014).

The following abbreviations are used:

CSF Cockroach Species Files Online (Beccaloni, 2014) MCSN Museo Civico di Storia Naturale "Giacomo Doria", Genoa

MHNG Muséum d'histoire naturelle de Genève

MIZW Museum and Institute of Zoology, Warsaw

NHMUK Natural History Museum, London

SMF Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt

SMHS Stuttgart State Museum of Natural History

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# **CATALOGUE**

*apacha* Saussure, 1893: 296 [*Homoeogamia*] Mexico; Chihuahua. Unspecified number of ♂.

The MHNG collection contains three specimens. A 3 specimen (MHNG-ARTO-20574) with labels: "Chihuahua, Amer. Cent. Mr Corcelle" [handwritten on ruled white card]; "Chihuahua, Mr Corcelle" [handwritten on white paper]; "Homoeogamia apacha Sauss. 3" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings spread. Most of both antennae, part of the tibia and the tarsi of both front legs, both middle legs, the right hind leg and the tibia and tarsi of the left hind leg are lost.

A & specimen (MHNG-ARTO-20575) with labels: "Chihuahua, Amer. Cent. Mr Corcelle" [handwritten on ruled white card]; "Chihuahua, Mr Corcelle" [handwritten on white paper]; "Homoeogamia apache Sauss. &" [handwritten on green paper]; "Homoeogamia apacha Sauss., Cotype &, Muséum Genève" [handwritten on white card]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings spread. The end of the abdomen is detached and placed in a vial secured through the stopper on the original pin, and the right forewing is detached and glued to a card mount on the original pin. Most of both antennae, the left forewing, the left front leg, the tibia and tarsi of the right front leg, the tarsi of the right middle leg, the entire left middle and hind legs and the tarsi of the right hind leg are missing.

A  $\ \$  specimen (MHNG-ARTO-20576) with labels: "Chihuahua, Amer. Cent. Mr Corcelle" [handwritten on ruled white card]; "Chihuahua, Mr Corcelle" [handwritten on white paper]; "Homoeogamia apacha Sauss.  $\$  larva?" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, the right front tarsi are detached and glued to a card mount on the original pin. The tibia and tarsi of the right middle and hind legs are missing. Although this specimen was not explicitly mentioned in the original description (which was only as part of a key), the  $\$  "Nympha(?)" is mentioned by Saussure & Zehntner (1894: 108) and the specimen is part of the type series. Box Blattodea 61.

Arenivaga apacha (Saussure, 1893)

*azteca* Saussure, 1862: 230 [*Corydia* (*Holocompsa*)] Mexico calida. Unspecified series.

Saussure (1870) stated that he had three  $\circlearrowleft$  and six  $\circlearrowleft$  from the "Cordillère orientale". The MHNG collection contains eleven specimens, but four of them (MHNG-ARTO-20460 to MHNG-ARTO-20463) were sent from Costa Rica by Paul Biolley, a Swiss teacher who lived in Costa Rica from 1885 to 1908, and therefore cannot be part of the type series. The remaining specimens, all from Mexico, are probably part of the type series. A  $\circlearrowleft$  specimen (MHNG-ARTO-20453) with labels: "540 16,

Vera Cruz t.c., Mexique, Vge. de Saussure" [handwritten on ruled white card]; "Holocompsa azteca Sss. ♀" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. There is insect feeding damage to the thorax, and the left antenna, the left front leg, the tibia and tarsi of the left middle leg, the entire right middle leg and left hind leg and the tarsi of the right hind leg are missing.

A  $\ \$  specimen (MHNG-ARTO-20454) with labels: " $\ \ \$ , Moyoapan, Mexique, env. Sumichrast" [handwritten on ruled white card]; "Holocompsa azteca Sauss.  $\ \ \ \$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. Both antennae, the right front leg and the tarsi of the left hind leg are lost.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20456) with labels: " $\circlearrowleft$  Mexique, Sumichrast" [handwritten on ruled white card]; "Holocompsa azteca Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. The right antenna is missing.

A 3 specimen (MHNG-ARTO-20457) with labels: "3 Mexique, Sumichrast" [handwritten on ruled white card]; "Holocompsa azteca Sss. 3" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The tips of the antennae and the right hind leg are missing.

A  $\ \$  specimen (MHNG-ARTO-20458) with labels: " $\ \$  Moyoapan, Mexique, env. Sumichrast" [handwritten on ruled white card]; "Holocompsa azteca Sss.  $\ \$  [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. Most of both antennae, the tarsi of the right hind leg and two tarsal segments of the left hind leg are lost.

A ♀ specimen (MHNG-ARTO-20459) with labels: "♀, Orizaba, Mexique, Sumichrast" [handwritten on ruled white card]; "Holocompsa azteca Sauss. ♀" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The head, the left front leg, the right middle leg and the right hind leg are missing. Box Blattodea 59.

There is a \$\times\$ specimen in the NHMUK (BMNH(E)876462) with a data label "\$\times\$ Moyoapan, Mexique, env. Sumichrast" [handwritten on ruled white card] which is presumably a syntype although not labelled as such in their online database

Holocompsa azteca Saussure, 1862

*azteca* Saussure, 1893: 296 [*Homoeogamia*] Mexico. Unspecified number of  $\circlearrowleft$  and  $\circlearrowleft$ .

Saussure & Zehntner (1894) gave a full description of both sexes (in Saussure, 1893 the name only appears in a key) and stated that the provenance was Omilteme in Guerrero, leg. H. H. Smith. The MHNG collection contains eight specimens. A & specimen (MHNG-ARTO-20481) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss. &" [handwritten on green paper]; "Pron. Figure!" [handwritten by Saussure on white card]; "Homoeogonia Azteca Sauss. Cotype & Muséum Genève" handwritten on white card]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. Most of both antennae and the claws of the left hind leg are lost.

A  $\ \$  specimen (MHNG-ARTO-20482) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss.  $\ \$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly spread. The right hind leg is missing.

A ♀ specimen (MHNG-ARTO-20483) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss. ♂" [handwritten on green paper]; "figuré!" [handwritten by Saussure on white card]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. Most of the tight antenna and the last tarsal segment of the left hind leg are lost.

An immature specimen (MHNG-ARTO-20484) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss. larve" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The ends of both antennae, the right front leg and the tarsi of the left hind leg are missing.

A  $\ \$  specimen (MHNG-ARTO-20485) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss.  $\ \$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded.

An immature specimen (MHNG-ARTO-20486) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss. Larva ♀" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The right front leg is lost.

An immature specimen (MHNG-ARTO-20487) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss. Larva \$\rightarrow\$" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. An immature specimen (MHNG-ARTO-20488) with labels: "Omilteme, Guerrero, 8000ft, July, H.H. Smith" [printed on white card]; "Homoeogonia azteca Sauss.

Larva & [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The ends of the antennae and the claws of the right middle and hind legs are missing. Box Blattodea 60.

A junior synonym of *Homoeogamia mexicana* Burmeister, 1838

azteca Saussure, 1868: 101 [Paralatindia]

Mexico. Unspecified number of ♂.

Saussure (1870) stated that he had thirteen ♂ and ten ♀ collected by Sumichrast under bark in the "région moyenne de la Cordillère orientale". The MHNG collection contains fifteen specimens. A ♂ specimen (MHNG-ARTO-20419) with labels: "♂ Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. ♂" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The ends of the antennae, the right middle leg and both hind legs are missing, and there is insect feeding damage to the abdomen.

A  $\$  specimen (MHNG-ARTO-20420) with labels: " $\$  Mexique, env. Sumichrast" [handwritten on ruled white card]; "Paralatindia azteca Sauss.  $\$  [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The ends of the antennae, the right front leg, the tarsi of the right middle leg and both hind legs are lost.

A  $\[ \varphi \]$  specimen (MHNG-ARTO-20421) with labels: "larve  $\[ \varphi \]$  Mexique, M. H de Saussure" [handwritten on ruled white card]; "Paralatindia azteca Sauss.  $\[ \varphi \]$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The left hind leg is missing. A  $\[ \varphi \]$  specimen (MHNG-ARTO-20422) with labels: " $\[ \varphi \]$  Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sss.  $\[ \varphi \]$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The specimen has insect feeding damage to the head, and both front legs, the left middle leg, part of the femur, the tibia and tarsi of the right middle leg, the entire left hind leg and three tarsal segments of the right hind leg are missing.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20423) with labels: " $\circlearrowleft$  Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The ends of the antennae and both hind legs are missing.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20424) with labels: " $\circlearrowleft$  Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. Both antennae, the tarsi of the left middle leg, both hind legs and the abdomen are missing.

An immature & specimen (MHNG-ARTO-20425) with labels: "L & Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. & "

[handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The right antenna, left front leg and the tarsi of the left hind leg are lost.

A ♂ specimen (MHNG-ARTO-20426) with labels: "♂ Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. &" [handwritten on green paper]; "Prep. Bo 523" [handwritten on white card]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The tarsi of the left hind leg and the entire right hind leg are missing. The abdomen is detached and dissected on a microscope slide preparation (MHNG-ARTO-20426a) stored in a box pinned into the insect box.

A ♂ specimen (MHNG-ARTO-20427) with labels: "♂ Mexique, env. Sumichrast" [handwritten on ruled white card]; "Paralatindia azteca Sauss. 3" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly

A ♀ specimen (MHNG-ARTO-20428) with labels: "♀ Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. Q" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned.

An immature ♂ specimen (MHNG-ARTO-20429) with labels: "L & Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. 3" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. Most of both antennae, the tarsi of the left front leg and the entire left middle leg are missing.

A ♀ specimen (MHNG-ARTO-20430) with labels: "♀ Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. 

□" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. Most of both antennae and both hind legs are lost.

An immature ♂ specimen (MHNG-ARTO-20431) with labels: "L & Moyoap, Mexique, env. Sumichrast" [handwritten on ruled white card]; "Paralatindia azteca Sauss. \( \) " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. Most of both antennae, the left front leg and the right middle and hind legs are missing.

A ♂ specimen (MHNG-ARTO-20430) with labels: "♂ Moyoap, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sauss. 

□" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. There is insect feeding damage to the head thorax and abdomen. Both antennae, most of the tibia and the tarsi of the right front leg, the entire left middle leg and the tarsi of the right hind leg are missing.

A ♂ specimen (MHNG-ARTO-20431) with labels: "♂ Moyo, Mexique, env. S" [handwritten on ruled white card]; "Paralatindia azteca Sss. ?" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. Most of both antennae and the left hind leg are lost. Box Blattodea 59. The whereabouts of the other syntypes is

Paralatindia azteca Saussure, 1868

*binotata* Saussure & Zehntner, 1894: 110, pl. 3, fig. 32 [Holocompsa]

Guatemala; San Gerónimo (Champion). Unspecified number of  $\mathcal{P}$ . Possibly conspecific  $\mathcal{P}$ .

The MHNG contains one of specimen (MHNG-ARTO-20464) with labels: "Amer. trop., var. & M H de Saussure" [handwritten on ruled white card]; "Holocompsa binotata? Sauss." [handwritten on green paper]. The specimen is directly pinned. Both antennae, both front legs, the right middle leg and both hind legs are lost. The left forewing and right hindwing are detached and glued to a card mount secured on the original pin. This specimen is the  $\mathcal{J}$  mentioned in the original description, but because it was only considered to be probably conspecific cannot be considered a syntype. Box Blattodea 59.

There is a  $\bigcirc$  specimen in the NHMUK (BMNH(E)879466) with a data label "S. Geronimo, Guatemala, Champion" [printed on white card] and referred to as a syntype in their online database.

Holocompsa binotata Saussure & Zehntner, 1894

bolliana Saussure, 1893: 296 [Homoeogamia]

Texas. Unspecified number of  $\mathcal{E}$ .

The MHNG collection has two specimens. A 3 specimen (MHNG-ARTO-20572) with labels: "Dallas, Texas d" [Handwritten on ruled white card]; "Homoeogamia Bolliana & Sauss." [handwritten on green paper]; Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings spread. The antennae and the tarsi of the left front leg are lost.

An immature ♂ specimen (MHNG-ARTO- 20573) with labels: "Dallas, Texas, 1. 3" [handwritten on ruled white card]; "Homoeogamia Bolliana larva ♂ Sauss." [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned and the tips of the antennae, the tarsi of the right front leg, the last tarsal segment of the right middle leg and the tarsi of the right hind leg are missing. There is no reason to suppose that these are not syntypes. Box Blattodea 61.

Arenivaga bolliana (Saussure, 1893)

brasiliana Saussure, 1864b: 228-229 [Polyphaga (Homoeogamia)]

Le Brésil. Unspecified number of juvenile  $\Im$ .

The MHNG contains 1 immature specimen (MHNG-ARTO-20490) with labels: "Nymphe, Brésil, M Sordet" [handwritten on ruled white card]; "Homoeogonia brasiliana Sauss." [handwritten on green paper]; "Homoeogonia brasiliana Saussure. Type, immature, Muséum Genève" [handwritten on white card]; "Photographed in 1948. Polyphaga aegyptica (L.) juv. ♂ det A B Gurney" [handwritten on white card with "det A B Gurney" printed]; "Syntypus" [printed on red paper]. The specimen is directly pinned and the tarsi of the right hind leg and two tarsal segments of the left hind leg are lost. The type series was undefined and so this specimen should be regarded as a syntype. Box Blattodea 60. *Homeogamia brasiliana* Saussure, 1864

*capensis* Saussure, 1893: 298, 301-302 [*Dyscologamia*] Africa meridionalis (Mus. Genavense). Unspecified number of  $\mathfrak{P}$ .

The MHNG collection contains one ♀ specimen (MHNG-ARTO-20491) with labels: "620, 73 Cap b. sp., Mr Brady" and "Diese Etikette ist offensichtlich falsch. K. Princis 1952" [handwritten on opposite sides of a piece of ruled white card]; "Afriq. mér. Ouest de Zanzibar" [handwritten on white paper]; "Dyscologamia capensis Sss. ♀" [handwritten on red paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned and the right wings are partially spread. Most of the right antenna, the last tarsal segment of the left front leg, two tarsal segments of the left hind leg and the entire right hind leg are missing. The type series was undefined and so this specimen should be regarded as a syntype. Box Blattodea 60.

Ergaula capensis (Saussure, 1893)

*cesticulata* Saussure, 1893: 298-299 [*Dyscologamia*] India orientalis: Singapore (Mus. Calcuttae). Unspecified number of ♀.

No specimens found in the MHNG collection. The whereabouts of the type specimen(s) is unknown. A junior synonym of *Ergaula pilosa* (Walker, 1868)

cucullata Saussure & Zehntner, 1894: 111, pl. 5, fig. 9 [Latindia]

Guatemala; San Gerónimo (Champion). Unspecified number of  $\delta$ .

No specimens found in the MHNG collection.

There is a 3 specimen in the NHMUK (BMNH(E)876600) with a data label "S. Geronimo, Guatemala, Champion" [printed on white card] and referred to as the holotype in their online database.

Compsodes cucultatus (Saussure & Zehntner, 1894)

*delicatula* Saussure & Zehntner,1894: 112, pl. 5, fig. 10 [*Latindia*]

Guatemala; Zapote (Champion). Unspecified series. No specimens found in the MHNG collection.

There is a  $\circlearrowleft$  specimen in the NHMUK (BMNH(E)876601) with a data label "Zapote, Guatemala, G.C. Champion" [printed on white card] and referred to as the holotype in their online database.

Compsodes delicatulus (Saussure & Zehntner, 1894)

dohrniana Saussure, 1893: 309 [Heterogamia]

Sina septentrionalis. One  $\mathcal{O}$ .

No specimens found in the MHNG collection. Much of Dohrn's collection is currently in the MIZW, but no specimens of this species were found there and the type material is apparently lost.

A junior synonym of *Eupolyphaga sinensis* (Walker, 1868)

*dohrniana* Saussure & Zehntner, 1894: 111, pl. 5, fig. 7 [*Latindia*]

Guatemala (coll. Dohrn). Unspecified number of ♀.

No specimens found in the MHNG collection. Much of Dohrn's collection is currently in the MIZW, but no specimens of this species were found there and the type material is apparently lost.

Latindia dohrniana Sussure & Zehntner, 1894

doriana Saussure, 1895: 84-85 [Hemilatindia]

Assab, 1879 (Marq. Doria; voyage de l'"Esploratore"). Unspecified number of  $\delta$ .

No specimens found in the MHNG collection. There is a  $\delta$  specimen with corresponding data in the MCSN labelled as the holotype.

Tivia doriana (Saussure, 1895)

fenestrina Saussure 1864a: 324 [Hypercompsa]

Brasilia. Unspecified series.

Saussure (1864b) mentioned the  $\mathcal{Q}$  and stated that the type series was in the SMF. No specimens found in the MHNG collection. The type series is presumably in the SMF although no database for their Blattodea collection exists.

Hypercompsa fenestrina Saussure, 1864

gestroiana Saussure, 1895: 81-82 [Heterogamia]

Boran Galla, Auata (mois de Mai, Bottego). Unspecified number of  $\Im$ .

No specimens found in the MHNG collection. There is a ♂ specimen with corresponding data in the MCSN labelled as the holotype.

Hemelytroblatta gestroiana (Saussure, 1895)

gueriniana Saussure, 1863: 140, fig. 7 [Corydia]

Les Indes orientales; Sangor dans l'intérieur des Indes. Unspecified number of  $\delta$ .

The MHNG collection contains one 3 specimen (MHNG-ARTO-20470) with labels: "540–11, Sangor, Indes Or. 3 coll. Guérin" [handwritten on ruled white card]; "Corydia nuptualis 3 Gerst." [handwritten on yellow paper]; "Syntype of C. gueriniana Sauss. Hollier 2019" [handwritten on red paper]. This specimen was placed with three others in the MHNG collection under the name *Corydia nuptialis* but the name label pinned in the box has "nuptialis Gerst. (Gueriniana Sss.)" handwritten on it. The data label and the entry in the acquisitions register identify it as a syntype of *C. gueriniana*. The

specimen is directly pinned, with the wings spread. The left antenna, left front leg, four tarsal segments of the left middle leg and the last tarsal segment of the left hind leg are missing. Box Blattodea 59.

A junior synonym of *Therea nuptialis* (Gerstaecker, 1861)

hirsuta Saussure, 1899: 583 [Heterogamia]

Africa meridionalis. Unspecified number of  $\mathcal{Q}$ .

No specimens found in the MHNG collection. There is a specimen labelled as holotype in the SMHS.

A junior synonym of *Hemelytroblatta africana africana* (Linnaeus, 1758)

*inca* Saussure & Zehntner, 1894: 111-112, pl. 5, fig. 8 [*Latindia*]

Peru; Tarma. Unspecified number of ♂.

No specimens found in the MHNG collection. The whereabouts of the type specimen(s) is unknown.

Latindia inca Saussure & Zehntner, 1894

*mancella* Saussure & Zehntner, 1894: 114, pl. 5, fig. 6 [*Paralatindia*]

Peru; Tarma (Mus. Genavense). Unspecified number of  $\delta$ .

No specimens found in the MHNG collection. The whereabouts of the type specimen(s) is unknown. *Paralatindia mancella* Saussure & Zehntner, 1894

*mexicana* Saussure, 1868: 100 [*Latindia*] Mexico. Unspecified number of ♂ and ♀.

Saussure (1870) stated that he had seven ♂ and one ♀ captured by Sumichrast under the bark of pines near to Moyoapan. The MHNG collection contains five specimens. A ♂ specimen (MHNG-ARTO-20413) with labels: "♂ Mexique, env. Sumichrast" [handwritten on ruled white card]; "Latindia Mexicana Sauss." [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. Most of both antennae, the last tarsal segment of the right hind leg and the abdomen are missing. The right middle leg is detached and adheres to the hind legs.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20414) with labels: " $\circlearrowleft$  Moyoapan, Mexique, env. Sumichrast" [handwritten on ruled white card]; "Latindia Mexicana Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings spread. Most of both antenna, the tarsi of the right middle leg and the tibia and tarsi of the right hind leg are lost.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20415) with labels: " $\circlearrowleft$  Moyoap. Mexique, env. Sumichrast" [handwritten on ruled white card]; "Latindia Mexicana Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. The tip of the abdomen is detached and glued to a card mount on the original pin. The tips of the antennae, the right middle leg and both hind legs are lost.

A  $\circ$  specimen (MHNG-ARTO-20416) with labels: " $\circ$  Moyoap. Mexique, env. Sumichrast" [handwritten on ruled white card]; "Latindia Mexicana Sauss.  $\circ$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. Both antennae, the tarsi of the left hind leg and the abdomen are missing, with signs of insect feeding damage.

A  $\circlearrowleft$  specimen (MHNG-ARTO-20417) with labels: "Mexique, env. Sumichrast" [handwritten on ruled white card]; "Latindia Mexicana Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings roughly folded. The antennae, the right front wing, both hind wings, the tarsi of both front legs, both hind legs and the abdomen are lost. Box Blattodea 59. The whereabouts of the other syntypes is unknown.

Latindia mexicanus Saussure, 1868

*nepalensis* Saussure, 1893: 298, 300 [*Dyscologamia*] India: Sikkim. Unspecified number of ♂.

No specimens found in the MHNG collection. The whereabouts of the type specimen(s) is unknown. *Ergaula nepalensis* (Saussure, 1893)

ornata Saussure 1864a: 341 [Melestoria]

India; Bombay. Unspecified series.

The MHNG collection contains one  $\circlearrowleft$  specimen (MHNG-ARTO-20394) with labels: "Indes orient. & M H de Saussure" [handwritten on ruled card]; Corydia ornata ♂ Sauss." [handwritten on yellow paper]; "Corydia westwoodi Gerst. Indes var." [handwritten on ruled white card]; "D'après une notice trouvée dans les manuscrits de Mr. de Saussure, cet insecte ne serait qu'une simple variété de C. westwoodi et vérifié par Gerstaecker. J'ai encore des doutes sur ce point ci." [handwritten by Jean Carl on a strip of white paper]; "Syntypus" [printed on red paper]. The specimen is pinned, with the wings folded. The left front leg, two tarsal segments of the right middle leg, the last tarsal segment of the left middle leg and the last tarsal segment of the right hind leg are lost. Because the type series was not defined, this specimen must be considered a syntype. Box Blattodea 59.

Eurycordia ornata (Saussure, 1864)

*peruviana* Saussure & Zehntner, 1894: 114, pl. 5, figs 11-14 [*Paralatindia*]

Peru; Tarma (Mus. Genavense). Unspecified number of  $\delta$  and  $\circ$ .

The MHNG collection contains four specimens. A  $\circlearrowleft$  specimen (MHNG-ARTO-20434) with labels: " $\circlearrowleft$  Tarma, Perou, M H de Saussure" [handwritten on ruled white card]; "Paralatindia peruviana Sauss.  $\circlearrowleft$ " [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned, with the wings folded. The right hind wing and the tip of the abdomen are detached and glued to a card mount on the original pin.

Both antennae, the right front leg and the tarsi of the left middle leg are lost.

A ♀ specimen (MHNG-ARTO-20435) with labels: "♀ Tarma, Perou, M H de Saussure" [handwritten on ruled white card]; "4 40 Tarma Perou" [handwritten on ruled white card]; "Paralatindia peruviana Sauss. ♀" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. Most of the left antenna is missing.

An immature ♀ (MHNG-ARTO-20436) with labels: "♀ larva, Perou, M H de Saussure" [handwritten on ruled white card]; "4 40 Perou central" [handwritten on white card]; "Paralatindia peruviana Sauss. Larva ♀" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The tarsi of the right middle and hind legs are lost.

An immature ♂ (MHNG-ARTO-20437) with labels: "♂ larva, Perou, M H de Saussure" [handwritten on ruled white card]; "Paralatindia peruviana Sauss. Larva ♀ [sic]" [handwritten on green paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned. The right antenna, the last tarsal segment of the left middle leg, the entire right middle leg, the tarsi of the left hind leg and the entire right hind leg are lost. Although the larvae were not explicitly mentioned in the original description, they are clearly part of the type series. Box Blattodea 59. *Paralatindia peruviana* Saussure & Zehntner, 1894

*pilosella* Saussure, 1895: 82-83 [*Heterogamia*] Scioa; Let-Marefià (Antinori). Unspecified number of ♂. No specimens found in the MHNG collection. There is a ♂ specimen with corresponding data in the MCSN labelled as the holotype.

Hemelytroblatta pilosella (Saussure, 1895)

pusilla Saussure & Zehntner, 1894: 112 [Latindia] Peru; Tarma. Unspecified number of ♂. No specimens found in the MHNG collection. The whereabouts of the type specimen(s) is unknown. Latindia pusilla Saussure & Zehntner, 1894

*sinensis* Saussure, 1869: 282-283 [*Homoeogamia*] Nord de la Chine; Pekin. Two ♂.

The MHNG collection contains one & specimen (MHNG-ARTO-20468) with labels: "& Pekin, Chine, M. H de Saussure" [handwritten on ruled white card]; "Heterogamia sinensis Sauss. &" [handwritten on yellow paper]; Heterog. sinensis Sauss." [handwritten on blue paper]; "Syntypus" [printed on red paper]. The specimen is directly pinned with the left wings spread and the right wings folded. There is insect feeding damage to the head, and the left antenna, the last tarsal segment of the right middle leg, the last tarsal segment of the left hind leg and all of the tarsi of the right hind leg are missing. Box Blattodea 59. The whereabouts of the other syntype is unknown. This species is not listed in the CSF database. Kirby (1903: 379) considered *Polyphaga sinensis* 

(Saussure, 1869) to be a junior homonym of *P. sinensis* Walker, 1868 and proposed the replacement name *P. limbata*.

Replaced by Eupolyphaga limbata (Kirby, 1903)

syriaca Saussure, 1864a: 346 [Polyphaga] Syria. Unspecified number of ♂.

There is one  $\Im$  specimen in the MHNG collection (MHNG-ARTO-20595) with labels: "Syrie, ♂" [handwritten on ruled white card]; "Arenivaga Africana Africana (L.)" [handwritten on blue paper]: "Possible syntype of P. syriaca Saussure Hollier 2019" [handwritten on red paper]. The specimen is directly pinned, with the wings folded. There is insect feeding damage to the base of the abdomen and the femur of the left hind leg. Four tarsal segments of the left front leg and the entire right hind leg are missing. This specimen was placed with many others in the MHNG collection under the name Arenivaga *africana africana* (L.). The only other ♂ among them has a data label with an acquisition number showing that it entered the collection as "Heterogamia ursina Burm." from the collection of Guérin-Méneville. The very simple data label of specimen MHNG-ARTO-20595 suggests that it may be a syntype of *Polyphaga syriaca* Saussure. Box Blattodea 61.

A junior synonym of *Hemelytroblatta africana africana* (Linnaeus, 1758)

*tamerlana* Saussure, 1893: 316 [*Anisogamia*] Turcomania. Unspecified number of ♀.

The MHNG contains one ♀ specimen (MHNG-ARTO-20465) with labels: "Turkestan, M. König" [handwritten on ruled white card]; "Turkestan König" [handwritten on yellow paper]; "Anisogamia tamerlana ♀ Sauss." [handwritten on yellow paper]; "Anisogamia tamerlana Sss. [handwritten on blue paper]; "Syntypus" [printed on red paper]. Most of both antennae are missing. Because the type series was not defined, this specimen must be considered a syntype. Box Blattodea 59.

Anisogamia tamerlana Saussure, 1893

*tolteca* Saussure & Zehntner, 1894: 109, pl. 3, fig. 35 [Holocompsa]

Guatemala; Purula in Vera Paz (Champion). Unspecifed number of  $\mathcal{P}$  (one?).

No specimens found in the MHNG collection.

There is a \$\times\$ specimen in the NHMUK (BMNH(E)876463) with a data label "Purula, Vera Paz, Champion" [printed on white card] and referred to as the holotype in their online database.

Holocompsa tolteca Saussure & Zehntner, 1894

*tolteca* Saussure & Zehntner, 1894: 113 [*Latindia*] Mexico; Moyoapan (Mus. Genavense). One broken specimen.

The MHNG collection contains one ♀ specimen (MHNG-ARTO-20418) with labels: "♀ Moyoap.,

Mexique, env. Sumichrast" [handwritten on ruled white card; "Latindia tolteca Sauss." [handwritten on green paper], "Holotypus" [printed on red card]. The specimen is directly pinned, with the wings folded. The specimen has insect feeding damage, and the antennae, three tarsal segments of both front legs, the tibia and tarsi of both middle legs, all of both hind legs and the abdomen are missing. Box Blattodea 59.

A junior synonym of Latindia mexicanus Saussure, 1868

*zapoteca* Saussure & Zehntner 1894: 109, pl. 3 fig. 33 [*Holocompsa*]

Guatemala; Zapote (Champion). Unspecified number of  $\delta$ .

No specimens found in the MHNG collection.

There is a 3 specimen in the NHMUK (BMNH(E) 876464) with a data label "Zapote, Guatemala, G.C. Champion" [printed on white card] and referred to as the holotype in their online database.

Holocompsa zapoteca Saussure & Zehntner, 1894

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# REFERENCES

- Beccaloni G.W. 2014. Cockroach Species File Online. Version 5.0/5.0. Available at: http://Cockroach.SpeciesFile.org (Accessed 14.vi.2020).
- Burmeister H. 1838. Kakerlaken, Schaben. Blattina. [pp. 469-517]. *In*: Burmeister H. 1838. Handbuch der Entomologie Volume 2, Part 1. *Berlin, Reimer*, pp. 397-571.
- Gerstaecker A. 1861. Ueber das Vorkommen von ausstülpbaren Hautanhängen am Hinterleibe an Schaben. *Archiv für Naturgeschichte* 27(1): 107-115.
- Hollier A., Hollier J. 2012. Henri de Saussure's expedition to Mexico and the West Indies (1854-56). *Antenna* 36(4): 231-238.
- Hollier A., Hollier J. 2013. A re-evaluation of the nineteenth-century naturalist Henri de Saussure. *Archives of Natural History* 40: 302-319.

- Hollier J., Hollier A. 2018. Leo Zehntner, Swiss pioneer of tropical applied entomology. *Antenna* 42(2): 56-60.
- Kirby W.F. 1903. Notes on Blattidae etc., with descriptions of new genera and species in the collection of the British Museum, South Kensington. No. III. *The Annals and Magazine of Natural History* 12: 373-381.
- Linnaeus C. 1758. Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentis synonymis, locis. 10th edition. *Holmiae, Laurentii Salvi*, 823 pp.
- Ohl M., Oswald J.D. 2004. Annotated list of the primary type specimens of Megaloptera and Raphidioptera (Insecta, Neuropterida) in the Museum für Naturkunde der Humboldt-Universität zu Berlin. Deutsche Entomologische Zeitschrift (N.S.) 51: 87-96.
- Saussure H. de 1862. Orthoptera nova Americana (Diagnoses praeliminares). *Revue et Magasin de Zoologie Pure et Appliquée* 14: 163-171, 227-234.
- Saussure H. de 1863. Mélanges Orthoptérologiques I. Blattidae. Mémoires de la Société de Physique et d'histoire naturelle de Genève 17: 129-172.
- Saussure H. de 1864a. Blattarum novarum species aliquot. Revue et Magasin de Zoologie Pure et Appliquée 16: 305-326, 341-348.
- Saussure H. de 1864b. Orthoptères de l'Amérique moyenne. *Ramboz & Schuchardt, Genève*, 279 pp., 2 plates.
- Saussure H. de 1868. Orthoptera species novae aliquot. *Revue* et Magasin de Zoologie Pure et Appliquée 20: 97-101, 354-357.
- Saussure H. de 1869. Mélanges Orthoptérologiques Fascicule II. Blattides et Phasmides. *Mémoires de la Société de Physique et d'histoire naturelle de Genève* 20: 227-328.
- Saussure H. de 1870. Famille des Blattides [pp. 1-123, plates 1-2]. *In*: Saussure H. de 1870-1874. *Mission Scientifique au Mexique et dans l'Amérique Centrale. Recherches Zoologiques* 6(1): 1-533, plates 1-8.
- Saussure H. de 1893. Révision de la tribu des Hétérogamiens. *Revue suisse de Zoologie* 1: 289-318.
- Saussure H. de 1895. Esplorazione del Giuba e dei suoi affluenti, compiuta dal Cap. V. Bottego durante gli anni 1892-93 sotto gli auspicii della Societa Geographica Italiana. Risultati Zoologici V. Ortotteri. *Annali del Museo Civico di Storia Naturale di Genova* 35: 67-93.
- Saussure H. de 1899. Orthoptera [pp. 567-664]. *In:* Voeltzkow A. (ed.). Wissenschaftliche Ergebnisse der Reisen in Madagaskar und Ostafrika in den Jahren 1889-95. *Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft* 21: 1-664.
- Saussure H. de, Zehntner L. 1894. Blattidae (part) [pp. 105-123]. *In*: Godman F.D., Salvin O. (eds). Biologia Centrali-Americana. Insecta Orthoptera (Orthoptera Genuina) Volume 1. *Porter, London* 458 pp, 22 plates.
- Walker F. 1868. Catalogue of the specimen of Blattariae in the collection of the British Museum. *British Museum, London* 239 pp.