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The Diptera of Panama. I.  
Annotated catalog of the Tipulomorpha of Panama

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## The Diptera of Panama. I. Annotated catalog of the Tipulomorpha of Panama

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**Abstract.** There are 214 species of the suborder Tipulomorpha (Diptera) known from Panama. Of these, 162 species were described by the noted American entomologist, Charles Paul Alexander, from Panama during the period from 1912 through 1979. Panama hosts two of the four families found within the Tipulomorpha: Limoniidae (197 species) and Tipulidae (17 species). We have records of only three species from multiple provinces ( $n = 2$ ) within Panama and 211 species from just one province. The vast majority of the latter are known from a single location within their respective provinces. There are 142 endemic species (66.4%) included in Panama's Tipulomorpha fauna, with the remainder being found elsewhere in South America (48 species), Central America (44), Mexico (23 species), the Caribbean (14 species), and the United States (4 species). Whereas, this taxonomic group has benefited from collecting in the Canal Zone and the popular western highlands in Chiriqui Province, we know little or nothing of the distribution of species within the country, their natural history, or their relationship to water quality.

**Key words.** Limoniidae, Tipulidae, distribution, type locality, annotated bibliography.

**Resumen.** Existen 214 especies del suborden Tipulomorpha (Diptera) conocidas de Panamá. Charles Paul Alexander describió 162 especies durante el período comprendido entre 1912 y 1979. Panamá alberga dos de las cuatro familias encontradas dentro de Tipulomorpha: Limoniidae (197 especies) y Tipulidae (17 especies). Tenemos registros de solo tres especies de múltiples provincias ( $n = 2$ ) dentro de Panamá y 211 especies de una sola provincia. La gran mayoría de estos últimos son conocidos desde un solo lugar con sus respectivas provincias. Hay 142 especies endémicas (66.4%) incluidas en la fauna de Tipulomorpha de Panamá, y el resto se encuentra en Sudamérica (48 especies), otras partes de América Central (44), México (23 especies), el Caribe (14 especies) y Estados Unidos (4 especies). Considerando que, este grupo taxonómico se ha beneficiado de la recolección en la Zona del Canal y las tierras altas occidentales populares en la provincia de Chiriquí, sabemos poco o nada de la distribución de las especies dentro del país, su historia natural, o su relación con la calidad del agua.

**Palabras clave.** Limoniidae, Tipulidae, distribución, tipo localidad, bibliografía anotado.

### Introduction

Within the insect order Diptera, or true flies, resides a group of suborders of generally elongated flies with thin, segmented antennae. In general, these suborders have aquatic or semi-aquatic larvae. Included in these suborders are crane flies, gnats, midges, and mosquitoes, among others (Amorim and Yeates 2006). The suborder Tipulomorpha contains the crane flies, the subject of this publication, from the Republic of Panama.

The Tipulomorpha consist of four families (Starý 1992): Cyndrotomidae, Pediciidae, Limoniidae, and Tipulidae, with only the latter two families found to date in Panama. Worldwide, there are over 15,500 species in this suborder, distributed among 700 genera and subgenera (Oosterbroek 2019). Within the Neotropical region, over 3,600 species and subspecies are known.

This present work borrows in great measure from the Catalogue of the Craneflies of the World (CCW), by Pjotr Oosterbroek (Oosterbroek 2019) and from the original literature. The former is a tremendous

resource for professionals and students of crane flies, containing both detailed information as well as sources (as PDFs) for many of the publications cited. Another very valuable resource is the chapter on Tipulidae by Gelhaus (2009) in the Manual of Central American Diptera. This is a most useful introduction to and summary of crane flies in Central America, providing, among other benefits, a key to genera, a synopsis of the fauna by genus, and a robust literature cited section. Prior to this current publication, two very useful and thorough catalogs in our region have been executed from Mexico (Contreras-Ramos and Gelhaus 2002) and Colombia (Ribeiro and Santos 2016). In addition, Dr. Jon Gelhaus is currently working on this group in Costa Rica (personal communication). However, there is little discernible activity in the remainder of Central America.

Panama has been a favorite destination for many scientific collectors. This is due both to the historical U.S. presence in the Canal Zone, plus the attractiveness and climate of the western highlands area. Charles Paul Alexander, more than any other individual, benefited from many of these collections, particularly those made by individual collectors. During the course of his work from 1912 through 1979, he described 162 species from Panama and identified most of the remaining Panamanian species first described elsewhere. The most recent contributions to Panama's fauna have come from Yanoviak (2001), who studied the macrofauna of water-filled treeholes on Barro Colorado Island, and from Ribeiro (2003) in his revision of the limoniid genus *Styringomyia* Loew.

The purpose of this publication is to pull together in one document most of what we know about the Tipulomorpha in Panama. The reasons for this are two-fold. First, there is a need for increased taxonomic expertise among native Panamanians, who even if interested, have few references to facilitate learning about a specific group of insects such as crane flies. Second, no species of crane flies from Panama have been described or even identified by a native Panamanian to date. We consider this publication as a first step to remedying these needs. We also hope that this document will stimulate others in neighboring Central American countries to become interested in this fascinating group, contributing to our knowledge on a more regional scale.

## Materials and Methods

The information presented herein was synthesized from the CCW and the original literature. Information presented in figures and tables are derived from this information. The emphasis was to collect in one document what we know about crane flies in Panama as a baseline from which to progress.

At the peak of his work, Charles P. Alexander produced 20 or more publications per year (max = 37), which can be overwhelming. Because researchers and students using this document will, by force of circumstances or necessity, also use the CCW online database, references employed in this publication mirror those in the CCW, using the same lowercase letters after the publication year to separate Alexander's publications for a given year. This was done to reduce any confusion when comparing this publication with the CCW, the more so because in the CCW a serious effort has been made to provide dates of publication for all of Alexander's 1,055 papers on crane flies.

## Results

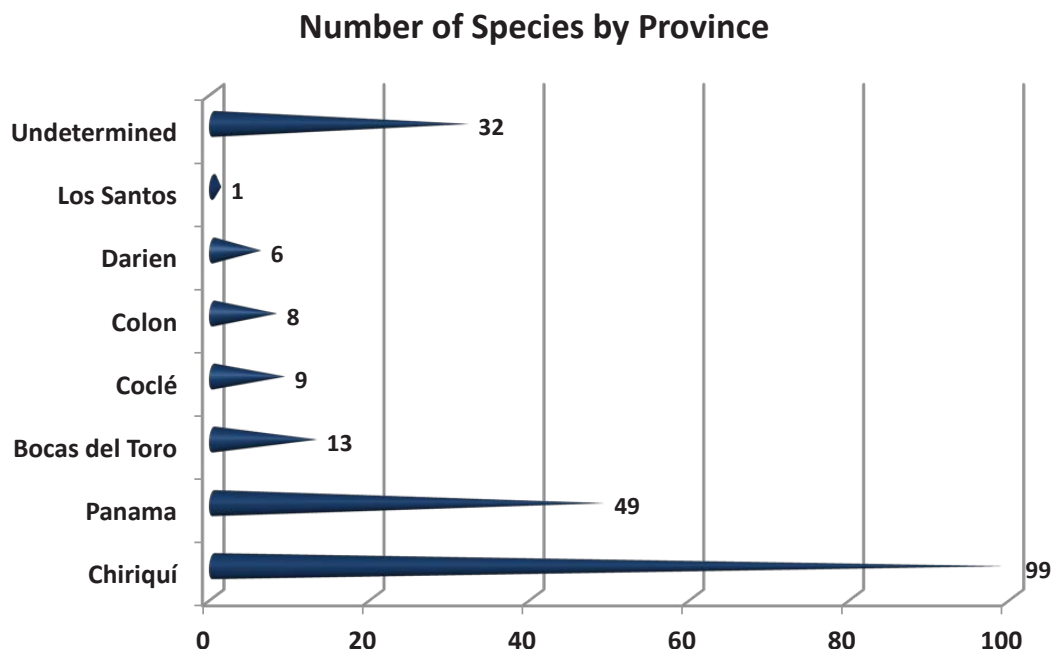
An annotated list of Panama's crane flies is found in Appendix 1. Included for each species is the name, authority, original genus name, type locality, description reference, wing reference, hypopygium reference, list of Panamanian provinces, and regional distribution. The species are organized by family and subfamily.

In Table 1, we present a list of the genera of crane flies known to occur in Panama together with associated data. Figure 1 is a graph of Panamanian species distributions among the provinces. This is also geographically rendered in a map in Figure 2, showing the locations of these provinces. In Table 2 we present the number of taxa shared by Panama and its neighboring countries, the percent similarity of each external country's shared species with its own total species count, and the percent similarity of each external country's shared species with Panama's total species count. Analysis of regional affinities among Panamanian taxa and those also found in other regions is presented in Figure 3. Finally,

**Table 1.** Genera of crane flies recorded from Panama together with the number of species associated with each genus.

Family (Subfamily)	No. of Genera	Genera	No. of Species
Family Limoniidae (Chioneinae)	13	<i>Atarba</i>	9
		<i>Cheilotrichia</i>	5
		<i>Cryptolabis</i>	5
		<i>Ellipteroides</i>	3
		<i>Erioptera</i>	4
		<i>Eugnophomyia</i>	1
		<i>Gnophomyia</i>	5
		<i>Gonomyia</i>	22
		<i>Molophilus</i>	5
		<i>Neognophomyia</i>	2
		<i>Sigmatomera</i>	3
		<i>Styringomyia</i>	1
		<i>Teucholabis</i>	15
	<b>Total:</b>	<b>80</b>	
Family Limoniidae (Limnophilinae)	7	<i>Epiphragma</i>	7
		<i>Hexatoma</i>	5
		<i>Lecteria</i>	1
		<i>Limnophila</i>	1
		<i>Limnophilella</i> <sup>1</sup>	1
		<i>Polymera</i>	8
		<i>Shannonomyia</i>	8
			<b>Total:</b>
Family Limoniidae (Limoniinae)	10	<i>Dicranomyia</i>	22
		<i>Elephantomyia</i>	8
		<i>Geranomyia</i>	17
		<i>Helius</i>	8
		<i>Lipsothrix</i>	1
		<i>Neolimonia</i> <sup>2</sup>	4
		<i>Orimarga</i>	6
		<i>Rhipidia</i>	10
		<i>Toxorhina</i>	4
		<i>Trentepohlia</i>	6
			<b>Total:</b>
Family Tipulidae (Tipulinae)	5	<i>Brachypremna</i>	4
		<i>Ischnotoma</i>	1
		<i>Leptotarsus</i>	2
		<i>Ozodicera</i>	1
		<i>Tipula</i>	9
<b>Total:</b>	<b>35</b>	<b>Total:</b>	<b>17</b>

<sup>1</sup>in Gelhaus (2009) as *Austrolimnophila*; <sup>2</sup>in Gelhaus (2009) as *Dicranomyia*.



**Figure 1.** Number of species of crane flies found in each province.

**Table 2.** Number of crane fly species shared between Panama and other neighboring countries. Also given is the percent of the shared species for these countries (a) based on that country's total fauna, and (b) based on Panama's total fauna.

Country	# of Species	Match	% <sup>a</sup>	% <sup>b</sup>
Panama	214	—	100.0	
Mexico	328	25	7.6	11.7
Colombia	131	12	9.2	5.6
Costa Rica	124	25	20.2	11.7
Guatemala	71	14	19.7	6.5
Honduras	29	2	6.9	0.9
El Salvador	11	3	27.3	1.4
Nicaragua	8	1	12.5	0.5

Figure 4 presents an accumulation curve of recorded species from Panama, highlighting the activity of Alexander beginning in 1912 and ending about 1980.

The Literature Cited section presents the pertinent literature for Panama. Also included are the species either described or mentioned within each cited taxonomic work.

## Discussion

Comparatively, Panama has an impressive list of species in relation to all Central American countries and Colombia, and is second only to Mexico. However, a further examination shows that this is a bit of a charade. We know what species have been identified from Panama, but not where they are commonly located. All but three of the species are known from only one province, and most of those from only one location within their respective provinces. Further, the three multi-province species are only known

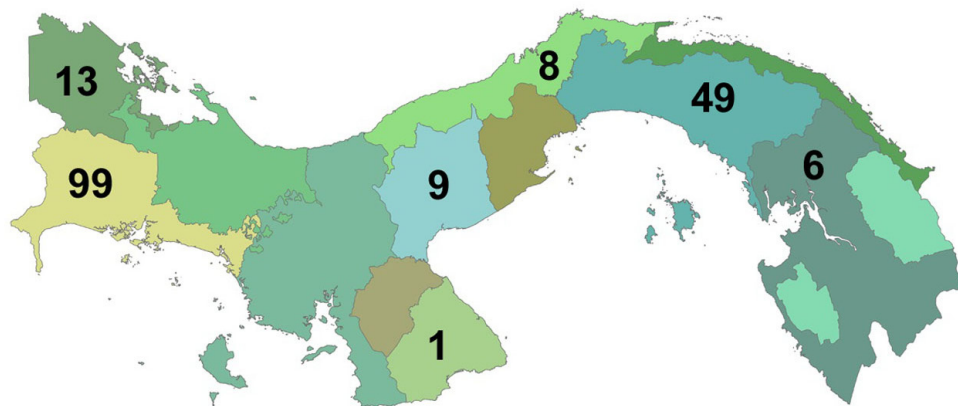


Figure 2. Map of Panamanian provinces showing species counts for crane flies.

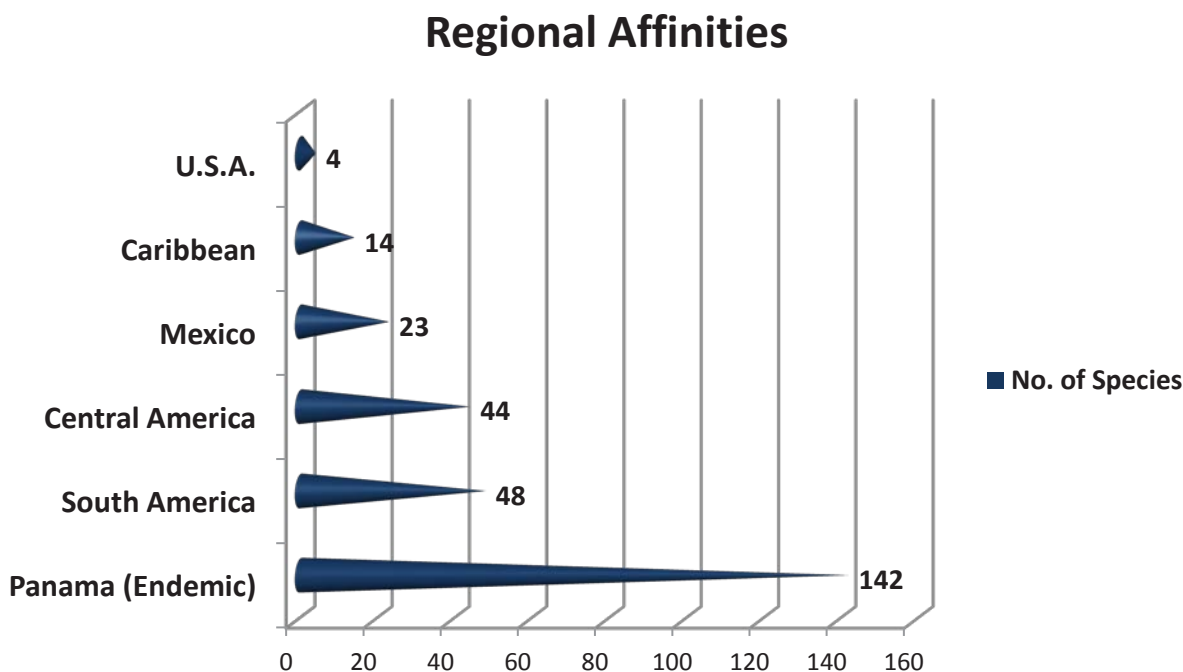


Figure 3. Comparison between the number of crane fly species purportedly endemic to Panama and the Panamanian species with regional affinities.

from two provinces. In addition, the majority of the species known from Panama were collected from a very few locations. So, on top of the need for training of Panamanians to do taxonomic work in groups such as the crane flies, we also need to collect in many more places, more administrative units, and more major watersheds before we can hope to comprehend this fauna. This neglects, for the moment, the equal need to conduct ecological and life history studies on these taxa. Finally, as Figure 1 illustrates, we were unable to determine any province(s) for 32 of the species known from Panama. Most, but not all, of these were species that were first described outside of Panama. Perhaps, their collection locations within Panama are in publications that we did not peruse, as a distribution record. However, we did note in several situations, that Alexander simply said, for example, “known from Panama through Ecuador” without giving any further information. We feel these “broad strokes” type of statements should be avoided, and full collection record information should be provided at all times.



## Species Recorded from Panama

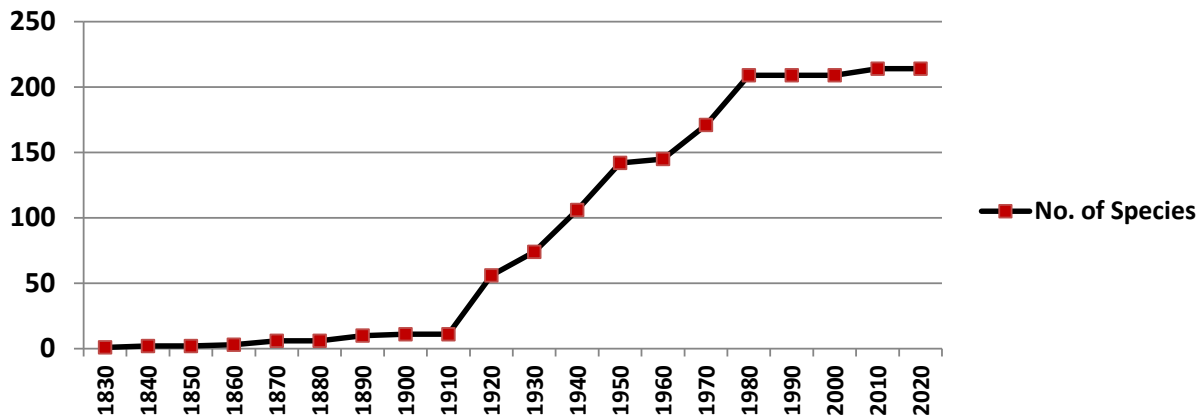


Figure 4. Accumulation curve for species of crane flies recorded from Panama.

The picture for crane flies is actually no better, and probably worse, in other Central American countries. Thus, Table 2 implies more about what we do not know, as much as what we do. And, the fact that there are 66.4% endemic species (142 out of 214 total species) further reflects our lack of knowledge about the faunas of neighboring countries. Any professionals and students who might take up the task of expanding our knowledge about crane flies and many other groups of aquatic insects, not only have significant hurdles to overcome within Panama, but also are working in a vacuum unless similar efforts are undertaken in neighboring countries. We can only hope that this small contribution will serve as an impetus for beginning such tasks.

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- (*Elephantomyia*) *luteiannulata chiriquiensis*; *Geranomyia carunculata carunculata*; *Geranomyia fluxa*; *Gonomyia (Paralipophleps) peracuta conifera*; *Molophilus (Molophilus) illectus*; *Teucholabis (Teucholabis) aequinigra*; *Teucholabis (Teucholabis) seposita*].
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**Appendix 1.** Species of Tipulomorpha (families Limoniidae and Tipulidae) known from Panama. This information was derived from the Catalogue of the Craneflies of the World (Oosterbroek 2019) and the primary literature. A total of 214 species are recorded from Panama, with 197 species in the Limoniidae and 17 species in the Tipulidae. In situations wherein the original description is from the 1800s and a more recent description is available, then the latter is listed as the “Description:” reference. Records which list “Canal Zone” in the literature were assigned to either Panama or Colon Provinces as associated information dictated.

#### Family Limoniidae\_\_ Subfamily Chioneinae

##### *Atarba (Atarba) aperta subaperta* Alexander, 1945

**Original Genus:** *Atarba*; **Holotype:** male (AMNH); **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945y; **Wing Reference:** Alexander 1945y; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

##### *Atarba (Atarba) apicispinosa* Alexander, 1934

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida, nr Boquete; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Atarba (Atarba) distispina* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Atarba (Atarba) fieldiana* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Coclé Province; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Atarba (Atarba) panamensis* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Atarba (Atarba) pustulata* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Atarba (Atarba) serena* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Atarba (Atarba) subpatens* Alexander, 1969**

**Original Genus:** *Atarba*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Atarba (Ischnothrix) patens* (Alexander, 1940)**

**Original Genus:** *Ischnothrix*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1940l); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cheilotrichia (Empeda) appressa* Alexander, 1970**

**Original Genus:** *Cheilotrichia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cheilotrichia (Empeda) brevifida* Alexander, 1970**

**Original Genus:** *Cheilotrichia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cheilotrichia (Empeda) luteivena* Alexander, 1970**

**Original Genus:** *Cheilotrichia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cheilotrichia (Empeda) sutrina* (Alexander, 1941)**

**Original Genus:** *Erioptera*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cheilotrichia (Empeda) tanneri* Alexander, 1970**

**Original Genus:** *Cheilotrichia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970k; **Wing Reference:** Alexander, 1970k; **Hypopygium Reference:** Alexander, 1970k; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cryptolabis (Cryptolabis) chiriquiana* Alexander, 1969**

**Original Genus:** *Cryptolabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cryptolabis (Cryptolabis) luteicosta* Alexander, 1934**

**Original Genus:** *Cryptolabis*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cryptolabis (Cryptolabis) pallidivena* Alexander, 1969**

**Original Genus:** *Cryptolabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cryptolabis (Cryptolabis) uniformis* Alexander, 1969**

**Original Genus:** *Cryptolabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Cryptolabis (Cryptolabis) vallicola* Alexander, 1947**

**Original Genus:** *Cryptolabis*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1947q; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1947q; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Ellipteroides (Progonomyia) bifasciolatus* (Alexander, 1937)**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1937n); **Wing Reference:** Alexander, 1964f; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Cuba, Jamaica, Mexico, Panama.

***Ellipteroides (Progonomyia) slossonae* (Alexander, 1914)**

**Original Genus:** *Gonomyia*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Canal Zone, Paraiso; **Description:** (Alexander, 1914k); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Jamaica, Mexico, Panama, USA.

***Ellipteroides (Progonomyia) subcostatus* (Alexander, 1919)**

**Original Genus:** *Gonomyia*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Rio Chico near mouth of Rio Procona; **Description:** (Alexander, 1919k); **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Erioptera (Erioptera) interrita* Alexander, 1970**

**Original Genus:** *Erioptera*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Camp Pina; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Erioptera (Mesocyphona) celestior* Alexander, 1957**

**Original Genus:** *Erioptera*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Cerro Punta; **Description:** Alexander, 1957a; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Erioptera (Mesocyphona) incurvata* Alexander, 1971**

**Original Genus:** *Erioptera*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Gatun; **Description:** Alexander, 1971i; **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Erioptera (Mesocyphona) latilimbata* Alexander, 1970**

**Original Genus:** *Erioptera*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.



***Eugnophomyia curraniana* (Alexander, 1945)**

**Original Genus:** *Gnophomyia*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** (Alexander, 1945v); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Gnophomyia banksiana* Alexander, 1945**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945y; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Gnophomyia emarginata* Alexander, 1945**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945y; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Gnophomyia lachrymosa* Alexander, 1919**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Panama, Colon Province, Portobelo; **Description:** Alexander, 1919k; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1919k; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Gnophomyia laticincta* Alexander, 1919**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Panama, Colon Province, Portobelo; **Description:** Alexander, 1919k; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1919k; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Gnophomyia subhyalina* Alexander, 1913**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Guatemala, Cacao, Trece Aguas, Alta Vera Paz; **Description:** Alexander, 1913d; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1913d; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Costa Rica, Guatemala, Guyana, Panama, Trinidad.

***Gonomyia (Gonomyia) aitkeniana* Alexander, 1979**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam Site; **Description:** Alexander, 1979a; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1979a; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) basispina* Alexander, 1979**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam Site; **Description:** Alexander, 1979a; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1979a; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) idiostyla* Alexander, 1970**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) parvistyla* Alexander, 1979**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam Site; **Description:** Alexander, 1979a; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1979a; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) remota obtusistyla* Alexander, 1940**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) sejuncta* Alexander, 1970**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1970c; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) stenorhabda* Alexander, 1969**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) stylacantha* Alexander, 1969**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) subunicolor* Alexander, 1948**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, Cerro Pena; **Description:** Alexander, 1948k; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Gonomyia (Gonomyia) unicolor* Alexander, 1913**

**Original Genus:** *Gonomyia*; **Holotype:** female; **Type Locality:** Guatemala, Aguna; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** Alexander, 1979a; **Panamanian Provinces:** undetermined; **Regional Distribution:** El Salvador, Guatemala, Mexico, Panama.

***Gonomyia (Leiponeura) anduzeana acestra* Alexander, 1971**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Gonomyia (Leiponeura) batesi* Alexander, 1945**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945y; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Gonomyia (Leiponeura) carsiostyla* Alexander, 1971**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Colon Province, Fort Gulick; **Description:** Alexander, 1971b; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Gonomyia (Leiponeura) extensa* Alexander, 1914**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Guyana, Bartica; **Description:** Alexander, 1914g; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Guyana, Panama, Trinidad.

***Gonomyia (Leiponeura) gillottae* Alexander, 1929**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Costa Rica, near Cartago; **Description:** Alexander, 1929b; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Costa Rica, Panama.

***Gonomyia (Leiponeura) macswaini* Alexander, 1940**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Panama.

***Gonomyia (Leiponeura) platyphallus* Alexander, 1971**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** Alexander, 1971b; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Gonomyia (Leiponeura) scimitar* Alexander, 1914**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Guyana, Bartica; **Description:** Alexander, 1914g; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Panama.

***Gonomyia (Leiponeura) spinolateralis* Alexander, 1971**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Fort Clayton; **Description:** Alexander, 1971b; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Gonomyia (Paralipophleps) gladiator* Alexander, 1919**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Real de Santa Maria; **Description:** Alexander, 1919k; **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Darien, Panama; **Regional Distribution:** Panama.

***Gonomyia (Paralipophleps) peracuta conifera* Alexander, 1941**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941q; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Panama.

***Gonomyia (Paralipophleps) uncinata* Alexander, 1969**

**Original Genus:** *Gonomyia*; **Holotype:** male; **Type Locality:** Panama, Colon Province, Fort Gulick; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Molophilus (Molophilus) anerastas* Alexander, 1934**

**Original Genus:** *Molophilus*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Palo Alto; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Molophilus (Molophilus) chiriquiensis* Alexander, 1934**

**Original Genus:** *Molophilus*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Molophilus (Molophilus) illectus* Alexander, 1941**

**Original Genus:** *Molophilus*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941q; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Molophilus (Molophilus) neanerastus* Alexander, 1969**

**Original Genus:** *Molophilus*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Molophilus (Molophilus) sarotes* Alexander, 1969**

**Original Genus:** *Molophilus*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1969n; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969n; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Neognophomyia heliconiae* Alexander, 1945**

**Original Genus:** *Neognophomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Neognophomyia panamensis* Alexander, 1930**

**Original Genus:** *Neognophomyia*; **Holotype:** male; **Type Locality:** Panama, Los Santos Province, Tonosi; **Description:** Alexander, 1930n; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Los Santos; **Regional Distribution:** Panama.

***Sigmatomera amazonica* Westwood, 1881**

**Original Genus:** *Sigmatomera*; **Holotype:** female; **Type Locality:** Brazil ("Amazonia"); **Description:** Alexander, 1920o; **Wing Reference:** Alexander, 1929x; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Panama.

***Sigmatomera occulta* Alexander, 1914**

**Original Genus:** *Sigmatomera*; **Holotype:** female; **Type Locality:** Paraguay, Ascuncion, Villa Mora; **Description:** Alexander, 1914b; **Wing Reference:** Alexander, 1914b, 1929x; Gelhaus, 2009; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Panama, Paraguay.

***Sigmatomera siguyi* Alexander, 1929**

**Original Genus:** *Sigmatomera*; **Holotype:** female; **Type Locality:** Costa Rica; **Description:** Alexander, 1929x; **Wing Reference:** Alexander, 1929x; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Costa Rica, Panama.

***Styringomyia maya* Ribeiro, 2003**

**Original Genus:** *Styringomyia*; **Holotype:** male; **Type Locality:** Ecuador, Azuay, 18 km SE Jesus Maria; **Description:** Ribeiro, 2003; **Wing Reference:** Alexander, 1914g; **Hypopygium Reference:** Ribeiro, 2003; **Panamanian Provinces:** Darien; **Regional Distribution:** Belize, Bolivia, Colombia, Costa Rica, Ecuador, Guyana, Honduras, Panama, Suriname, Venezuela.

***Teucholabis (Teucholabis) adamesi* Alexander, 1979**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam Site; **Description:** Alexander, 1979a; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1979a; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) aequinigra* Alexander, 1941**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941q; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) atrolata* Alexander, 1948**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1948k; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) audax* Alexander, 1913**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone; **Description:** Alexander, 1913b; **Wing Reference:** Alexander, 1913b; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) diplaca* Alexander, 1945**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945v; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) gracilis* Osten Sacken, 1886**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Mexico, Orizaba; **Description:** Osten Sacken, 1886; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1915a (as *T. buscki*); **Panamanian Provinces:** Colon; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) leridensis* Alexander, 1934**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) miniata* Alexander, 1930**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro, Province, United Fruit Company; **Description:** Alexander, 1930n; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Panama.



***Teucholabis (Teucholabis) noctula* Alexander, 1971**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Panama Province, New Taboga Village; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) patens* Alexander, 1939**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Mexico, Chiapas, Vergel; **Description:** Alexander, 1939d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Mexico, Panama.

***Teucholabis (Teucholabis) rostrata* Enderlein, 1912**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Costa Rica; **Description:** Enderlein, 1912a; **Wing Reference:** Enderlein, 1912a; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Costa Rica, Panama.

***Teucholabis (Teucholabis) seposita* Alexander, 1941**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941q; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) subclara* Alexander, 1971**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) subleridensis* Alexander, 1938**

**Original Genus:** *Teucholabis*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** Alexander, 1938r; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Teucholabis (Teucholabis) trifasciata trifasciata* Enderlein, 1912**

**Original Genus:** *Teucholabis*; **Holotype:** female; **Type Locality:** Colombia, Rio Magdalena; **Description:** Enderlein, 1912a; **Wing Reference:** Enderlein, 1912a; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Colombia, Ecuador, Guyana, Mexico, Panama, Peru, Venezuela.

**Family Limoniidae\_\_ Subfamily Limnophilinae*****Epiphragma (Epiphragma) amphileucum* Alexander, 1941**

**Original Genus:** *Epiphragma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941h; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Epiphragma (Epiphragma) circinatum* Osten Sacken, 1886**

**Original Genus:** *Epiphragma*; **Holotype:** female; **Type Locality:** Costa Rica, Mt. Irazu; **Description:** Alexander 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Panama.

***Epiphragma (Epiphragma) gagei* Alexander, 1929**

**Original Genus:** *Epiphragma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Boquete; **Description:** Alexander, 1929b; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Epiphragma (Epiphragma) genuale* Alexander, 1934**

**Original Genus:** *Epiphragma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Epiphragma (Epiphragma) immaculipes* Alexander, 1941**

**Original Genus:** *Epiphragma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941h; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Epiphragma (Epiphragma) inaequicinctum* Alexander, 1941**

**Original Genus:** *Epiphragma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941h; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Panama, Venezuela.

***Epiphragma (Epiphragma) varium* (Wiedemann, 1828)**

**Original Genus:** *Limnobia*; **Holotype:** male; **Type Locality:** Brazil; **Description:** Alexander, 1919k; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Ecuador, Guyana, Panama, Peru, Venezuela.

***Hexatoma (Eriocera) euryxantha* Alexander, 1971**

**Original Genus:** *Hexatoma*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Hexatoma (Eriocera) interlineata* Alexander, 1934**

**Original Genus:** *Hexatoma*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Mexico, Panama.

***Hexatoma (Eriocera) intermedia* (Alexander, 1927)**

**Original Genus:** *Eriocera*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** (Alexander, 1927t); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Hexatoma (Eriocera) lessepsi* (Osten Sacken, 1886)**

**Original Genus:** *Eriocera*; **Holotype:** male; **Type Locality:** Panama; **Description:** Osten Sacken, 1886; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Panama.

***Hexatoma (Eriocera) stolidi* Alexander, 1934**

**Original Genus:** *Hexatoma*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Lecteria (Lecteria) acanthosoma* Alexander, 1969**

**Original Genus:** *Lecteria*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province, Water Cay; **Description:** Alexander, 1969m; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1969m; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Panama.

***Limnophila (Limnophila) dictyoptera* Alexander, 1922**

**Original Genus:** *Limnophila*; **Holotype:** female; **Type Locality:** Costa Rica, San Jose; **Description:** Alexander, 1922j; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Costa Rica, Panama, Venezuela.

***Limnophilella victor* (Alexander, 1919)**

**Original Genus:** *Limnophila*; **Holotype:** female; **Type Locality:** Panama, Darien Province, Quebrada Richa; **Description:** (Alexander, 1919k); **Wing Reference:** Alexander, 1919k; Gelhaus, 2009; **Hypopygium Reference:** none; **Panamanian Provinces:** Darien; **Regional Distribution:** Panama.

***Polymera (Polymera) aitkeni* Alexander, 1978**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** Alexander, 1978b; **Wing Reference:** Alexander, 1978b; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Polymera (Polymera) chiriquiensis* Alexander, 1941**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941h; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Polymera (Polymera) cingulata* Alexander, 1969**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Colon Province, Pina; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Polymera (Polymera) grisea* Alexander, 1913**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Ancon; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Polymera (Polymera) niveitarsis* Alexander, 1913**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; Robeiro, 2008; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Brazil, Costa Rica, Ecuador, Guatemala, Guyana, Panama, Peru, Suriname, Venezuela.

***Polymera (Polymera) obscura* Macquart, 1838**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Brazil; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** Alexander, 1913d; **Panamanian Provinces:** Panama; **Regional Distribution:** Argentina, Bolivia, Brazil, Guyana, Mexico, Panama, Peru.

***Polymera (Polymera) superba* Alexander, 1913**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Tabernilla; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Ecuador, Panama.

***Polymera (Polymerodes) conjuncta* Alexander, 1913**

**Original Genus:** *Polymera*; **Holotype:** male; **Type Locality:** Brazil, Igarape Assú Pará; **Description:** Alexander, 1913d; **Wing Reference:** Alexander, 1913d; Alexander, 1970g; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Dominica, Guyana, Panama.

***Shannonomyia (Shannonomyia) argenteiceps* Alexander, 1929**

**Original Genus:** *Shannonomyia*; **Holotype:** female; **Type Locality:** Ecuador, Ventura; **Description:** Alexander, 1929w; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Ecuador, Panama.

***Shannonomyia (Shannonomyia) atroapicalis* Alexander, 1934**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Shannonomyia (Shannonomyia) exilostyla* Alexander, 1971**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.



***Shannonomyia (Shannonomyia) galindoi* Alexander, 1978**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam Site; **Description:** Alexander, 1978b; **Wing Reference:** Alexander, 1978b; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Shannonomyia (Shannonomyia) lipernes* Alexander, 1971**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Shannonomyia (Shannonomyia) microstyla* Alexander, 1971**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Shannonomyia (Shannonomyia) olsoni* (Alexander, 1919)**

**Original Genus:** *Gnophomyia*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province, Rio Cana; **Description:** (Alexander, 1919k); **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Panama.

***Shannonomyia (Shannonomyia) setulicornis* Alexander, 1971**

**Original Genus:** *Shannonomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

**Family Limoniidae\_\_ Subfamily Limoniinae*****Dicranomyia (Caenoglochina) apicata apicata* Alexander, 1914**

**Original Genus:** *Dicranomyia*; **Holotype:** male; **Type Locality:** Guyana, Bartica; **Description:** Alexander, 1914g; **Wing Reference:** Alexander, 1914g; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Guyana, Mexico, Panama, Venezuela.

***Dicranomyia (Caenoglochina) lotax* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** (Alexander, 1971i); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; Gelhaus, 2009; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenoglochina) paucilobata* (Alexander, 1940)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1940l); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenoglochina) sica* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenoglochina) vorax* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenolimonia) distantia* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Cerro Punta; **Description:** (Alexander, 1971i); **Wing Reference:** Alexander, 1971i; Gelhaus, 2009; **Hypopygium Reference:** Alexander, 1971i; Gelhaus, 2009; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenolimonia) melaxantha* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Caenolimonia) nigrotincta* (Alexander, 1945)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** (Alexander, 1945y); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Dicranomyia (Caenolimonia) osterhouti* (Alexander, 1912)**

**Original Genus:** *Furcomyia*; **Holotype:** female; **Type Locality:** Panama, Bocas del Toro Province; **Description:** (Alexander, 1912g); **Wing Reference:** (Alexander, 1912g); **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Cuba, Panama.

***Dicranomyia (Caenolimonia) translucida* (Alexander, 1912)**

**Original Genus:** *Furcomyia*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province; **Description:** (Alexander, 1912g); **Wing Reference:** Alexander, 1912g; Gelhaus 2009; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Panama.

***Dicranomyia (Dicranomyia) aurantiothorax* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Dicranomyia) brunneistigma* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** (Alexander, 1971i); **Wing Reference:** none; **Hypopygium Reference:** (Alexander, 1971i); **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Dicranomyia) distans* Osten Sacken, 1860**

**Original Genus:** *Dicranomyia*; **Holotype:** male; **Type Locality:** USA, Florida; **Description:** Osten Sacken, 1860a; **Wing Reference:** Alexander, 1925j; Jones et al., 2003; **Hypopygium Reference:** Alexander, 1925j; **Panamanian Provinces:** Panama; **Regional Distribution:** Bermuda, Belize, Brazil, Guyana, Honduras, Jamaica, Mexico, Panama, Paraguay, Puerto Rico, USA, Tristan da Cunha, Venezuela.

***Dicranomyia (Dicranomyia) pampoecila* Alexander, 1922**

**Original Genus:** *Dicranomyia*; **Holotype:** female; **Type Locality:** Costa Rica, Tiribi; **Description:** Alexander, 1922j; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1954i; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Colombia, Costa Rica, Ecuador, Panama, Peru, Venezuela.

***Dicranomyia (Dicranomyia) perflaveola* (Alexander, 1927)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Mexico, Cerro San Cristobal; **Description:** (Alexander, 1927w); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Mexico, Panama.

***Dicranomyia (Neoglochina) curraniana* (Alexander, 1944)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** (Alexander, 1944q); **Wing Reference:** Alexander, 1945y; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Dicranomyia (Neoglochina) fumosa* (Alexander, 1912)**

**Original Genus:** *Furcomyia*; **Holotype:** female; **Type Locality:** Guyana, Amatuk; **Description:** (Alexander, 1912h); **Wing Reference:** Alexander, 1912h; Alexander 1927o; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Guyana, Panama, Peru, Venezuela.

***Dicranomyia (Neoglochina) mesotricha* (Alexander, 1944)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** (Alexander, 1944q); **Wing Reference:** Alexander, 1945y; **Hypopygium Reference:** Alexander, 1945y; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Dicranomyia (Neoglochina) trialbocincta* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Neolimnobia) diva* (Schiner, 1868)**

**Original Genus:** *Limnobia*; **Holotype:** male; **Type Locality:** Venezuela; **Description:** Alexander, 1933a; **Wing Reference:** Alexander, 1964f; Gelhaus, 2009; **Hypopygium Reference:** Alexander, 1964f; Gelhaus, 2009; **Panamanian Provinces:** undetermined; **Regional Distribution:** Bolivia, Brazil, Colombia, Cuba, Jamaica, Mexico, Panama, Puerto Rico, Venezuela.

***Dicranomyia (Peripheroptera) atosignata* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Dicranomyia (Peripheroptera) nitens* (Schiner, 1868)**

**Original Genus:** *Peripheroptera*; **Holotype:** male; **Type Locality:** Venezuela; **Description:** Alexander 1944t; **Wing Reference:** Alexander, 1915a; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Colombia, Panama, Peru, Venezuela.

***Elephantomyia (Elephantomyia) arcuaria* Alexander, 1945**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1945y; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) banksi* Alexander, 1927**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1927t; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) chiriquiana* Alexander, 1945**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1945y; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) luteiannulata chiriquiensis* Alexander, 1941**

**Original Genus:** *Elephantomyia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941q; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) multizona* Alexander, 1971**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Camp Pina; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) orthorhabda* Alexander, 1971**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; Gelhaus, 2009; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) panamensis* Oosterbroek, 2009**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Oosterbroek, 2009b; **Wing Reference:** Alexander, 1971i (as *E. laticincta*); **Hypopygium Reference:** Alexander, 1971i (as *E. laticincta*); **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Elephantomyia (Elephantomyia) scimitar* Alexander, 1971**

**Original Genus:** *Elephantomyia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Geranomyia aneura* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** (Alexander, 1971i); **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Geranomyia carunculata carunculata* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1953o; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama, Peru.

***Geranomyia cerberus* Alexander, 1927**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Guatemala, Escuintla; **Description:** Alexander, 1927t; **Wing Reference:** Alexander, 1916f (as *G. lachrymalis*); **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Costa Rica, Guatemala, Mexico, Panama.

***Geranomyia deliciosa* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama, Peru.

***Geranomyia disparilis* (Alexander, 1946)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Mexico, Chiapas, Finca Victoria; **Description:** (Alexander, 1946t); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Mexico, Panama, Peru.

***Geranomyia eurygramma eurygramma* Alexander, 1928**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Mexico, Veracruz, Cordoba, Barranca of the Rio San Antonio; **Description:** Alexander, 1928h; **Wing Reference:** Alexander, 1953o; **Hypopygium Reference:** Alexander, 1953o; Alexander, 1970g; **Panamanian Provinces:** undetermined; **Regional Distribution:** Colombia, Dominica, Ecuador, Mexico, Panama.

***Geranomyia fluxa* (Alexander, 1941)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1941q); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Mexico, Panama, Peru, Venezuela.

***Geranomyia knabiana* Alexander, 1916**

**Original Genus:** *Geranomyia*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Canal Zone; **Description:** Alexander, 1916f; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Guatemala, Panama.

***Geranomyia lachrymalis* Alexander, 1916**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Ecuador, Huigra; **Description:** Alexander, 1916a; **Wing Reference:** Alexander, 1916a; **Hypopygium Reference:** Alexander, 1954h; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru.



***Geranomyia monorhaphidia* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Coclé Province, El Valle de Anton; **Description:** (Alexander, 1971i); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Coclé; **Regional Distribution:** Panama.

***Geranomyia nigripleura* Alexander, 1919**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province, San San; **Description:** Alexander, 1919k; **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Panama.

***Geranomyia numenius* Alexander, 1913**

**Original Genus:** *Geranomyia*; **Holotype:** female; **Type Locality:** Peru, Callanga; **Description:** Alexander, 1913j; **Wing Reference:** Alexander, 1913j; **Hypopygium Reference:** Alexander, 1954h; **Panamanian Provinces:** undetermined; **Regional Distribution:** Ecuador, Panama, Peru.

***Geranomyia plumbeipleura* Alexander, 1916**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Ecuador, Huigra; **Description:** Alexander, 1916a; **Wing Reference:** Alexander, 1916a; **Hypopygium Reference:** Alexander, 1954h; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Colombia, Dominica, Ecuador, Panama, Peru, Trinidad, Venezuela.

***Geranomyia recisa* Alexander, 1927**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** El Salvador, Sonsonate; **Description:** Alexander, 1927t; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Ecuador, El Salvador, Mexico, Panama, Peru.

***Geranomyia recondita recondita* Alexander, 1921**

**Original Genus:** *Geranomyia*; **Holotype:** male; **Type Locality:** Peru, Iquitos; **Description:** Alexander, 1921r; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1954h; **Panamanian Provinces:** undetermined; **Regional Distribution:** Colombia, Panama, Puerot Rico.

***Geranomyia subinsignis* Alexander, 1916**

**Original Genus:** *Geranomyia*; **Holotype:** female; **Type Locality:** Guatemala, Aguna; **Description:** Alexander, 1916f; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** El Salvador, Guatemala, Mexico, Panama.

***Geranomyia subvirescens subvirescens* (Alexander, 1930)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Cuba, Trinidad Mountains; **Description:** (Alexander, 1930n); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1970g; Gelhaus, 2009; **Panamanian Provinces:** undetermined; **Regional Distribution:** cuba, Dominica, Panama.

***Helius (Helius) distinervis* Alexander, 1940**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Helius (Helius) eremnophallus* Alexander, 1978**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** Alexander, 1978b; **Wing Reference:** Alexander, 1978b; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Helius (Helius) fumipennis* (Alexander, 1919)**

**Original Genus:** *Ramphidia*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro Province, Silico Creek; **Description:** (Alexander, 1919k); **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Costa Rica, Panama.

***Helius (Helius) fuscipes* (Alexander, 1919)**

**Original Genus:** *Ramphidia*; **Holotype:** male; **Type Locality:** Panama, Bocas del Toro, Province, San San; **Description:** (Alexander, 1919k); **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Costa Rica, Panama.

***Helius (Helius) liguliferus* Alexander, 1978**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** Alexander, 1978b; **Wing Reference:** Alexander, 1978b; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Helius (Helius) panamensis panamensis* Alexander, 1934**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama, Venezuela.

***Helius (Helius) protumidus* Alexander, 1978**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** Alexander, 1978b; **Wing Reference:** Alexander, 1978b; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Helius (Helius) quadrivena* Alexander, 1971**

**Original Genus:** *Helius*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Lipsothrix neotropica* Alexander, 1940**

**Original Genus:** *Lipsothrix*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** Petersen, 2015; **Hypopygium Reference:** Petersen, 2015; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Neolimonia eiseni* (Alexander, 1912)**

**Original Genus:** *Furcomyia*; **Holotype:** male; **Type Locality:** Guatemala, Aguna; **Description:** (Alexander, 1912g); **Wing Reference:** Alexander, 1912g; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Guatemala, Guyana, Panama.

***Neolimonia lawlori* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1954i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Ecuador, Panama.

***Neolimonia ludibunda* (Alexander, 1927)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Mexico, Hueitepec; **Description:** (Alexander, 1927w); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Mexico, Panama.

***Neolimonia tragica* (Alexander, 1946)**

**Original Genus:** *Limonia*; **Holotype:** female; **Type Locality:** Mexico, Chiapas, Finca Prusia; **Description:** (Alexander, 1946d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Mexico, Panama.

***Orimarga (Diotrepha) luteipleura* Alexander, 1969**

**Original Genus:** *Orimarga*; **Holotype:** female; **Type Locality:** Panama, Colon Province, Fort Gulick; **Description:** Alexander, 1969e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Colon; **Regional Distribution:** Panama.

***Orimarga (Diotrepha) quinquefusca* Alexander, 1971**

**Original Genus:** *Orimarga*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Cerro Punta; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Orimarga (Diotrepha) setosivena* Alexander, 1971**

**Original Genus:** *Orimarga*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Orimarga (Orimarga) melampodia* Alexander, 1940**

**Original Genus:** *Orimarga*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Orimarga (Orimarga) nigroapicalis* Alexander, 1941**

**Original Genus:** *Orimarga*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1941h; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Costa Rica, Panama.

***Orimarga (Orimarga) niveitarsis* Alexander, 1915**

**Original Genus:** *Orimarga*; **Holotype:** female; **Type Locality:** Panama, Colon Province, Portobelo; **Description:** Alexander, 1915a; **Wing Reference:** Alexander, 1915a; Gelhaus (2009); **Hypopygium Reference:** none; **Panamanian Provinces:** Colón; **Regional Distribution:** Panama.

***Rhipidia (Rhipidia) alampetis* (Alexander, 1971)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** (Alexander, 1971i); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Rhipidia (Rhipidia) cermatoleuca* (Alexander, 1967)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Peru, Cuzco, Quincemil; **Description:** (Alexander, 1967m); **Wing Reference:** Alexander, 1967m; **Hypopygium Reference:** Alexander, 1967m; **Panamanian Provinces:** undetermined; **Regional Distribution:** Panama, Peru.

***Rhipidia (Rhipidia) costaloides* Alexander, 1920**

**Original Genus:** *Rhipidia*; **Holotype:** female; **Type Locality:** Panama, Darien Province, Quebrada Richa, a branch a rio Tapaliza; **Description:** Alexander, 1920e; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Darién; **Regional Distribution:** Panama.

***Rhipidia (Rhipidia) flabelliformis flabelliformis* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Finca Lerida; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Bolivia, Panama, Peru, Venezuela.

***Rhipidia (Rhipidia) multiguttata* Alexander, 1912**

**Original Genus:** *Rhipidia*; **Holotype:** male; **Type Locality:** Guatemala, Totonicipan; **Description:** Alexander, 1912f; **Wing Reference:** Alexander, 1912f; Gelhaus, 2009; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Guatemala, Panama.

***Rhipidia (Rhipidia) polythrix* (Alexander, 1978)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** (Alexander, 1978b); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.



***Rhipidia (Rhipidia) pumilistyla* (Alexander, 1978)**

**Original Genus:** *Limonia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Fortuna Dam; **Description:** (Alexander, 1978b); **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1978b; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Rhipidia (Rhipidia) shannoni* Alexander, 1914**

**Original Genus:** *Rhipidia*; **Holotype:** male; **Type Locality:** USA, Plummer's Island, Maryland; **Description:** Alexander, 1914k; **Wing Reference:** Alexander, 1914k; Alexander 1919d; **Hypopygium Reference:** Alexander, 1943k; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama, USA.

***Rhipidia (Rhipidia) subpectinata pleuralis* Alexander, 1912**

**Original Genus:** *Rhipidia*; **Holotype:** male; **Type Locality:** Guatemala, Cacao, Trece Aguas; **Description:** Alexander, 1912f; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Colombia, Guatemala, Mexico, Panama.

***Rhipidia (Rhipidia) variicosta* (Alexander, 1934)**

**Original Genus:** *Limonia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** (Alexander, 1934d); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Toxorhina (Ceratocheilus) americana* (Alexander, 1913)**

**Original Genus:** *Ceratocheilus*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Culebra; **Description:** (Alexander, 1913b); **Wing Reference:** Alexander, 1913b; Gelhaus, 2009; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Colombia, Costa Rica, Guyana, Panama, Peru.

***Toxorhina (Ceratocheilus) niveitarsis* (Alexander, 1922)**

**Original Genus:** *Ceratocheilus*; **Holotype:** male; **Type Locality:** Colombia, Boca del Condoto; **Description:** (Alexander, 1922o); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Colombia, Panama.

***Toxorhina (Toxorhina) centralis* (Alexander, 1913)**

**Original Genus:** *Toxorhina*; **Holotype:** male; **Type Locality:** Suriname; **Description:** (Alexander, 1913b); **Wing Reference:** Alexander, 1913b; Alexander 1933a; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Brazil, Costa Rica, Guatemala, Guyana, Mexico, Panama, Suriname.

***Toxorhina (Toxorhina) stenophallus* Alexander, 1937**

**Original Genus:** *Toxorhina*; **Holotype:** male; **Type Locality:** Brazil, Nova Teutonia, Rio Grande do Sul; **Description:** Alexander, 1937o; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Dominica, Panama, Venezuela.

***Trentepohlia (Paramongoma) chiriquiana* Alexander, 1934**

**Original Genus:** *Trentepohlia*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Finca Parada; **Description:** Alexander, 1934d; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Trentepohlia (Paramongoma) extensa* (Alexander, 1913)**

**Original Genus:** *Mongoma*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Culebra; **Description:** (Alexander, 1913d); **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Guyana, Panama.

***Trentepohlia (Paramongoma) longifusa* (Alexander, 1913)**

**Original Genus:** *Mongoma*; **Holotype:** female; **Type Locality:** Brazil, Igarape Assú Pará; **Description:** (Alexander, 1913d); **Wing Reference:** Alexander, 1913d; **Hypopygium Reference:** Alexander, 1980a; **Panamanian Provinces:** undetermined; **Regional Distribution:** Brazil, Ecuador, Panama, Peru.

***Trentepohlia (Paramongoma) metatarsata* (Alexander, 1915)**

**Original Genus:** *Mongoma*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Rio Trinidad; **Description:** (Alexander, 1915a); **Wing Reference:** Alexander, 1915a; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Costa Rica, Panama.

***Trentepohlia (Paramongoma) pallidistigma* Alexander, 1971**

**Original Genus:** *Trentepohlia*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, El Volcán; **Description:** Alexander, 1971i; **Wing Reference:** Alexander, 1971i; **Hypopygium Reference:** Alexander, 1980a; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Trentepohlia (Paramongoma) sororcula* Alexander, 1919**

**Original Genus:** *Trentepohlia*; **Holotype:** male; **Type Locality:** Panama, Darien Province, between Rio Capeti and Rio Yape; **Description:** Alexander, 1919k; **Wing Reference:** Alexander, 1919k; **Hypopygium Reference:** none; **Panamanian Provinces:** Darien; **Regional Distribution:** Panama.

**Family Tipulidae\_\_ Subfamily Tipulinae*****Brachypremna candida* Alexander, 1912**

**Original Genus:** *Brachypremna*; **Holotype:** male; **Type Locality:** Suriname; **Description:** Alexander, 1912j; **Wing Reference:** Alexander, 1912j; Alexander 1927n; **Hypopygium Reference:** Alexander, 1969; **Panamanian Provinces:** Panama, Bocas del Toro; **Regional Distribution:** Brazil, Ecuador, Guyana, Panama, Peru, Suriname.

***Brachypremna dispellens* (Walker, 1861)**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** "Mexico"; **Description:** Alexander, 1912j; **Wing Reference:** Alexander, 1912j; **Hypopygium Reference:** Alexander, 1912j; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Colombia, Costa Rica, Guatemala, Mexico, Panama, Suriname, Trinidad, USA, Venezuela.

***Brachypremna similis* Williston, 1900**

**Original Genus:** *Brachypremna*; **Holotype:** male; **Type Locality:** Mexico, Tabasco, Teapa; **Description:** Alexander, 1912j; **Wing Reference:** Alexander, 1912j; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama, Colon; **Regional Distribution:** Costa Rica, Guatemala, Mexico, Nicaragua, Panama, Venezuela.

***Brachypremna williamsoni* Alexander, 1912**

**Original Genus:** *Brachypremna*; **Holotype:** male; **Type Locality:** Guyana; **Description:** Alexander, 1912j; **Wing Reference:** Alexander, 1912j; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Brazil, Guyana, Panama, Peru, Suriname.

***Ischnotoma (Neotipula) pectinella* (Alexander, 1940)**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** (Alexander, 1940l); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Leptotarsus (Tanypremna) fieldianus* (Alexander, 1956)**

**Original Genus:** *Longurio*; **Holotype:** female; **Type Locality:** Panama, Panama Province, Canal Zone; **Description:** (Alexander, 1956b); **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Leptotarsus (Tanypremna) opilio* (Osten Sacken, 1886)**

**Original Genus:** *Tanypremna*; **Holotype:** male; **Type Locality:** Guatemala, Purula, Vera Paz; **Description:** Alexander 1914j; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Bocas del Toro; **Regional Distribution:** Costa Rica, Guatemala, Panama, Venezuela.

***Ozodicera (Dihexaclonus) panamensis* Alexander, 1922**

**Original Genus:** *Ozodicera*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Rio Chico; **Description:** Alexander, 1922o; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Tipula (Eumicrotipula) browniana* Alexander, 1940**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Tipula (Eumicrotipula) scriptella* Alexander, 1940**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Tipula (Microtipula) ctenopyga* Alexander, 1940**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Potrerillos; **Description:** Alexander, 1940l; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Tipula (Microtipula) dirhabdophora* Alexander, 1951**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Summit; **Description:** Alexander, 1951k; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1951k; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Tipula (Microtipula) luteidorsata* Alexander, 1971**

**Original Genus:** *Tipula*; **Holotype:** female; **Type Locality:** Panama, Chiriqui Province, Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Tipula (Microtipula) obstinata* Alexander, 1971**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Chiriqui Province, Volcán; **Description:** Alexander, 1971i; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1971i; **Panamanian Provinces:** Chiriquí; **Regional Distribution:** Panama.

***Tipula (Microtipula) scaphula* Alexander, 1945**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945z; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1945z; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.

***Tipula (Microtipula) spinicauda* Alexander, 1919**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Darien Province, Rio Chico; **Description:** Alexander, 1919k; **Wing Reference:** none; **Hypopygium Reference:** none; **Panamanian Provinces:** Darien; **Regional Distribution:** Panama.

***Tipula (Microtipula) zeteki* Alexander, 1945**

**Original Genus:** *Tipula*; **Holotype:** male; **Type Locality:** Panama, Panama Province, Canal Zone, Barro Colorado Island; **Description:** Alexander, 1945x; **Wing Reference:** none; **Hypopygium Reference:** Alexander, 1945x; **Panamanian Provinces:** Panama; **Regional Distribution:** Panama.