Ctenuchina and Euchromiina (Lepidoptera: Erebidae: Arctiinae) of Three Biological Research Stations of México's Ecosur

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CTENUCHINA AND EUCHROMIINA (LEPIDOPTERA: EREBIDAE: ARCTIINAE) OF THREE BIOLOGICAL RESEARCH STATIONS OF MÉXICO'S ECOSUR

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ABSTRACT. Two hundred and seventy one adult specimens representing 58 species in the subtribes Ctenuchina and Euchromiina (Arctiinae) were found at the entomological collections of ECOSUR (Southern Border College). The collections are based at three research stations: San Cristóbal de las Casas and Tapachula, located in the state of Chiapas, and Chetumal, in the state of Quintana Roo. They respectively contained 191 specimens representing 49 species, 54 specimens representing 15 species, and 26 specimens representing 6 species. The species *Correbidia fana* (Druce, 1900) was found within the collections and as far as we know this is a first record for Mexico.

Additional key words: Biogeography, Ecology, scientific collection, Taxonomy, wasp moths, Biological conservation

El Colegio de la Frontera Sur (ECOSUR) (the Southern Frontier College) was founded in 1994 on the remains of the Centro de Investigaciones Ecológicas del Sureste (CIES) (Southeastern Center for Ecological Research), which had started its activities 20 years prior in 1974. ECOSUR's objective is to do original research that might contribute to the sustainable development along the southern border of Mexico, Central America, and the Caribbean. The institution is comprised of five research stations, three of which contain entomological collections. The first is located at the San Cristobal de Las Casas station in the northern mountains of Chiapas (N16°42'05'' W92°36'45''), the second is located at the Tapachula station near the border with Guatemala (N14°52'56'' W92°11'45''), and the third is at the Chetumal station at the border with Belize (N18°32'13'' W88°17'46''). Insect collecting also started in 1994 with the general purpose of establishing an inventory of insects of ecogeographic and taxonomic importance from Mexico's southeast region.

Commonly known as tiger moths, the Arctiinae is a monophyletic group characterized by two synapomorphies: the presence of dorsal, eversible pheromone glands in females, and the presence of sound producing, metathoracic tymbal organs in both sexes (although secondarily reduced or lost in some groups) (Kitching & Rawlins 1998). Long considered a family within the Noctuoidea, the Arctiinae was also previously treated as a subfamily of Noctuidae (Lafontaine & Fibiger 2006). Phylogenetic relationships supported by molecular data and re-evaluation of morphological data have shifted the Arctiinae to subfamily within the Erebidae (Lafontaine & Schmidt 2010). The group contains about 11,000 species from around the world, including about 6,000 Neotropical species, with 658 reported from Mexico (Watson & Goodger 1986; Hernández-Baz 2009, 2010, 2012a).

Additionally, the Ctenuchinae was once considered a subfamily, and even a family as part of the Syntomidae (Hampson 1898; Zerny 1912; Draudt 1917; and others) but many authors merged it into the Arctiinae as the tribe Ctenuchini. However, Lafontaine & Schmidt (2010) keeps the subtribes Euchromiina and Ctenuchina in the tribe Arctiini.

FIG. 1. Male, *Correbidia fana* (Druce, 1900). First record for Mexico. Specimen deposited at the Entomology Collection ECO-SC-E, in San Cristobal de las Casas, Chiapas, Mexico. Photo: F. Hernández-Baz.

The Euchromiina and Ctenuchina include notable mimics of wasps and are sometimes referred to as "wasp moths." They are represented by approximately 2,400 Neotropical species, but only 240 of them are known from Mexico (Heppner 1991; Hernández-Baz 2009, 2012a). The Euchromiina and Ctenuchina sub tribes are supported by two synapomorphies: loss of tympanal pocket V and an enlarged tympanal hood (Simmons & Weller 2006)

Euchromiina comprises 112 species from México (Hernández-Baz 2009, 2012a) The males of several species have subabdominal pouches, highly modified second and third abdominal sternites that store woolly scales called flocculent (Barth 1953; Weller et al. 2000). These abdominal modifications are unique to the subtribe as currently defined (Weller et al. 2009). Wing veins have also important characteristics, $Sc+R_1$ are absent in the hind wing. The vein M_2 is rudimentary or lacking and it is frequently represented by a vein that looks like a line formed by scales. Cu_1 and Cu_2 are very close to each other or even fused.

Ctenuchina comprises 128 species from Mexico (Hernández-Baz 2009, 2012a). It contains several dayflying species in genera such as *Dinia, Saurita*, and *Cyanopepla*, among others. M2 is present in the hind wing; Cu_1 and Cu_2 are widely separated except in the genus *Horama* (Kitching & Rawlins 1999; Jacobson & Weller 2002; Teston & Corseuil 2003; Hernández-Baz & Bailey 2006, Hernández-Baz 2012a).

The main aim of this work is to present the inventory of the wasp moths (Arctiini: Ctenuchina, Euchromiina) deposited in the three insect collections owned by ECOSUR and located at the research units of San Cristóbal de las Casas, Tapachula and Chetumal. A checklist and discussion about comparative richness of the group in Southeast Mexico are provided.

MATERIALS AND METHODS

We have reviewed all curatorial information found with the specimens of Ctenuchina and Euchromiina (Arctiinae) deposited in the entomological collections of ECOSUR at San Cristóbal de las Casas (ECO-SC-E), Tapachula (ECO-TAP-E) and Chetumal (ECO-CH-E). Specimen data was entered and analyzed in an Excel (Microsoft Corp.) spreadsheet.

Even though we have studied Kitching & Rawlins (1999), Jacobson & Weller (2002) and Lafontaine & Fibiger (2006), we follow Lafontaine and Schmidt (2010) for supra-generic classification of the reported specimens. The genera were identified following Hampson (1898, 1914), although Watson et al. (1980), Watson & Goodger (1986) and Cerda (2008) were used for comparison purposes. For species identification, we followed Draudt (1917), Dietz & Duckworth (1976), Dietz (1994), and Hernández-Baz (1992, 2011). The original descriptions of every species were studied and compared with each specimen found in the ECOSUR collections. They were also compared with identified specimens contained in the Lepidoptera Collection SEMARNAT/CITES/CP-0026-VER/05 in Xalapa, Veracruz. The distribution of specimens was also compared with the "Polilla" database at the above mentioned collection in Xalapa. A faunistic list indicating abundance of specimens of each species in every studied insect collection is presented. Genera and species for every subtribe are presented alphabetically.

RESULTS AND DISCUSSION

The species list for the three insect collections belonging to three research units of ECOSUR was developed from a total of 271 specimens across the three collections. Specimens represented 58 taxa that were distributed in the sub-tribes Ctenuchina, with 16 genera and 26 species, and Euchromiina, with 19 genera and 32 species (Table 1). The specimens deposited in the above mentioned collections were mainly collected from their adjacent regions; however there are cases in which specimens were collected from outside the area of influence of the cited research units, as in the case of ECO-SC-E which has a lot of material from the state of Tamaulipas. The larger number of species was found at San Cristobal de las Casas with 49 and 191 specimens, followed by that of Chetumal with 15 species and 54 specimens and Tapachula with six species and 26 specimens. When comparing the abundance of specimens in each collection, it was found that the one at San Cristobal de las Casas research station (USC) represented the 84.5% of the total found, while the one at Chetumal research station (UCH) was

25.8% and the Tapachula research station (UTAP) represented only 10.3%. Specimen information was integrated to the "Polilla" database of the project "Inventario de las palomillas Ctenuchinae (Insecta: Lepidoptera: Noctuidae: Arctiinae) de la República Mexicana" (inventory of the Ctenuchinae moths of the Mexican Republic). Project Key: 22314200531-UV, at Universidad Veracruzana, Xalapa, Veracruz, Mexico.

A comparative analysis of richness of species as deposited in each of the studied collections with with the total number of known species at the national level (Hernández-Baz 1992, 2011, 2012a) indicates that ECO-SC-E, with its 49 species, has 16% of the species known in Mexico, while ECO-CH-E has 5% and ECO-TAP-E has only 2% (Table 2). Two hundred species of wasp moths have been recorded in the state of Chiapas (Hernández-Baz 2012b). When comparing this number of species of wasp moths found at the ECOSUR collections from that state we notice that ECO-SC-E has a representation 24.5% while ECO-TAP-E has only a very low 3%. Hernández-Baz (2011) documented 25 species of wasp moths for the state of Quintana Roo, but we only found 15 of those species in the ECO-CH-E collection. This means that the Quintana Roo Research station's collection currently contains 60% of what is known for that state.

We have to acknowledge that all faunistic inventories are biased depending on the person who collects the specimens (Jiménez-Valverde & Hortal 2003) which is possibly why the Ctenuchina and Euchromiina deposited in institutional collections in Mexico are not well represented, since no more than 60 species have been found among them (Hernández-Baz 2012a; Hernández-Baz & Coates 2011). A similar situation is found in Guatemala (Hernández-Baz & Bailey 2007). The species we present herein possibly show a regional fauna bias, since most collected material comes from around the area of influence of the three ECOSUR's research stations.

ECOSUR's collections have specimens belonging to 58 species of Ctenuchina and Euchromiina while only 36 species have been found in North America (Lafontaine & Schmith 2010). When comparing with several faunistic studies we have found that ECOSUR collections contain 24 % of the 240 species known from México (Hernández-Baz 2012a) and 27 % of the 216 cited from Guatemala (Hernández-Baz & Bailey, 2006; Hernández et al., 2008). If we take into consideration the biogeographic, ecological and climatic similarities between Chiapas and Guatemala, we can see that there is a high possibility that the collections ECO-SC-E and ECO-TAP-E could be increased to accumulate up to 200 species of wasp moths by doing a systematic

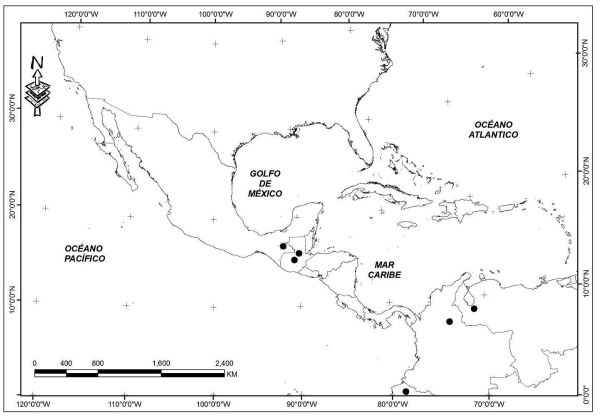

FIG. 2. Distribution of *Correbidia fana* (Druce, 1900) in the Americas. From: "Polilla" data Base, annex to the Lepidoptera collection SEMARNAT/CITES/CP-026-VER/05. The black dots represent the area where the known/reported collecting sites are found.

sampling of the ecosystems of the tropical evergreen mountainous forest and the cloud forests of Chiapas. Similarly, the ECO-CH-E could increase the actual number of species up to 150 thanks to the a) close proximity of Southwest Quintana Roo with Belize, a country with over 78 species within the Ctenuchina + Euchromiina (Barnes 2000), and b) the semi-evergreen seasonal forest mainly, and to a lesser extent the evergreen mountainous regions, which cover most of Quintana Roo (Valdéz-Hernández & Islebe 2011) and provide excellent conditions for the development of a larger diversity of moths.

Even though many wasp moths are known from Mexico, their reported distribution is highly fragmented which is also a characteristic of the group for most of the Americas. Thus, the knowledge about the group is far from complete. We are also certain that species are still to be described and some of the new, undescribed species are likely cryptic within already collected museum material around the world. It is necessary to continue efforts to collect and report the distribution and natural history since most of the hosts and life histories of this interesting group of moths are not described or known, even though some efforts have been done somewhere else (i.e., Dan Janzen and his group have studied life cycles of some species from Costa Rica).

This work is part of a larger project to study the Ctenuchina and Euchromiina from México and the Americas. This project will focus on five lines of research during the next few years: a) To do a faunistic inventory of the wasp moths of the Americas; b) To study the life cycles and trophic relations of each wasp

TABLE 1. Taxa and number of specimens of wasp moths of the subtribes Ctenuchina and Euchromiina (Erebidae: Arctiinae: Arctiini) in the insect collections at three research stations of ECOSUR (USC = San Cristóbal de las Casas; UCH = Chetumal; UTAP = Tapachula). First Record for México = FRM)

		ECOSUR's Research Stations		
	Erebidae: Arctiinae: Arctiini: Ctenuchina	USC	UCH	UTAP
1	*Aclytia heber* (Cramer, 1780)	2		
2	*Aclytia punctata* (Butler, 1876)	5		
3	*Aclytia ventralis* (Guérin-Menéville,1849)	1		
4	*Agyrta dux* (Walker, 1854)	1	4	
5	*Belemnia inaurata* (Zulzer, 1776)		2	
6	*Correbia affinis* (Druce 1884)	2		
7	*Correbia lycoides* (Walker, 1854)	1		
8	*Correbia undulata* (Druce, 1884)	1		
9	*Correbidia fana* (Druce, 1900)	1		
10	*Correbidia elegans* (Druce, 1884)	1		
11	*Correbidia germana* (Rothschild, 1912)	2		
12	*Cyanopepla bella* (Guérin-Méneville, 1844)	2		
13	*Delphyre rubricincta* (Hampson 1898)		1	
14	*Dinia eagrus* (Cramer, 1779)	4		1
15	*Episcepsis inornata* (Walker, 1856)	1		
16	*Epidesma oceola* (Dyar, 1910)	1		
17	*Eucereon erythrolepsis* (Dyar, 1910)	1		
18	*Eucereon pseudarchias* (Hampson, 1898)	1		
19	*Eucereon rosina* (Walker, 1854)		3	
20	*Eucereon tripunctatum* (Druce, 1884)	2		
21	*Heliura rhodophila* (Walker, 1854)		1	
22	*Horama plumipes* (Drury, 1773)	1	1	
23	*Horama panthalon* (Fabricius, 1793)		9	
24	*Ixylasia schausi* (Druce 1896)	2		
25	*Nelphe relegatum* (Schaus, 1911)		1	
26	*Sciopsyche tropica* (Walker, 1854)	1		

TABLE 1. (continued)

		ECOSUR's Research Stations		
	Erebidae: Arctiinae: Arctiini: Euchromiina	USC	UCH	UTAP
27	*Apeplopoda mecrida* (Druce, 1889)	3		
28	*Apeplopoda ochracea* (Felder, 1894)	2		
29	*Andrenimorpha ethodaea* (Druce, 1889)		4	
30	*Cosmosoma auge* (Linnaeus, 1767)	4		
31	*Cosmosoma braconoides* (Walker, 1854)	7		
32	*Cosmosoma caecum* (Hampson 1898)	7		
33	*Cosmosoma festiva* (Walker, 1854)	6	8	
34	*Cosmosoma impar* (Walker, 1854)	4		
35	*Cosmosoma impudica* (Schaus, 1911)	8		13
36	*Chrostosoma sectinota* (Hampson 1898)	2		
37	*Cosmosoma stilbosticta* (Butler, 1876)	6		
38	*Cosmosoma teuthras cingulatum* (Butler, 1876)	22	4	7
39	*Cosmosoma xanthostictum* (Hampson, 1898)	2		
40	*Chrysocale principalis* (Walker, 1865)	1		
41	*Dycladia correbioides* (Felder, 1874)	6		
42	*Homoeocera gigantea* (Druce, 1884)	18		2
43	*Homoeocera rodriguezi* (Druce, 1890)	1		
44	*Isanthrene cajetani* (Rothschild, 1911)	1		2
45	*Isanthrene perbosci* (Guérin-Menéville, 1844)		3	
46	*Leucotmemis nexa* (Herrich-Schäffer, 1854)	4	2	
47	*Loxophlebia imitata* (Druce, 1884)		5	
48	*Macrocneme chrysitis* (Guérin-Menéville, 1844)	13		
49	*Nyridela xanthocera* (Walker, 1856)	5		
50	*Pheia albisigna* (Walker, 1854)	2		
51	*Phoenicoprocta mexicana* (Walker, 1865)	2		
52	*Pseudohyaleucerea vulnerata vulnerata* (Butler, 1875)	2		
53	*Psilopleura vittata* (Walker, 1865)	6		
54	*Psoloptera basilfulva* (Schaus, 1894)	7		
55	*Scena potentia* (Druce, 1894)	9		
56	*Sphecosoma felderi* (Druce, 1883)	2		
57	*Syntomeida epilais epilais* (Walker, 1854)	2	6	1
58	*Syntomeida melanthus albifasciata* (Butler, 1876)	4		
	Total Number of specimens = 271	191	54	26

TABLE 2. Species richness of Ctenuchina and Euchromiina (Erebidae: Arctiinae: Arctiini) in Chiapas and Quintana Roo, México, based on ECOSUR's entomological collections (USC = San Cristóbal de las Casas; UCH = Chetumal; UTAP = Tapachula)

Collection	Number of Taxa found	Richness (expresssed in absolute numbers and %) México (**)		Richness (absolute numbers and %) Chiapas (***)		Richness (absolute numbers and %) Quintana Roo (****)	
		Total	%	Total	%	Total	%
USC	49	240	20.4	200	24.5	--	--
UTAP	6	240	2.5	200	3.0	--	--
UCH	15	240	6.3	--	--	25	60.0
Total	58(*)	240	24.0	--	--	--	--

(*) Total number of taxa is not the sum of the column since several species were found in multiple collections. This total was obtained from Table 1. (**) According to Hernández-Baz (1992, 2009, 2010); (***) According to Hernández-Baz (2012), (****) According to Hernández-Baz (2011).

moth species; **c)** to know their biogeographic distribution patterns; **d)** to determine the endemic species in each country, in each continental region and their habitat; and finally **e)** to propose a strategy for conservation based on the analysis of their vulnerability according to the criteria of the International Union for Conservation of Nature red list of threatened species.

The list that follows, presents the material examined highlighting the specific localities where every species was found in the states of Chiapas and Quintana Roo. The information for each species is presented as it appears on the labels of each insect. Ctenuchina and Euchromiina from the Insect Collections at ECOSUR are identified as: San Cristóbal de las Casas (ECO-SC-E); Chetumal (ECO-CH-E) and Tapachula (ECO-TAP-E).

LIST OF FAUNA

The next list loosely follows Vargas et al. (1996) and includes all available label information for each specimen in the three Insect Collections of ECOSUR.

Erebidae: Arctiinae: Arctiini: Ctenuchina (26 species)

***Aclytia heber* (Cramer, 1780)**. 1 ♂, Mexico, Jalisco, de la Huerta, Ejido San Mateo, 6-IX-1993, E. Gálvez. N. Barajas y E. Rodríguez, Light trap, ECO-SC-E; 1 ♂, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, N16°11′24″ W91°18′28″, 241m, 4-IX-2002, L. Martín, Light trap, ECO-SC-E.

***Aclytia punctata* (Butler, 1876)**. 2 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma Bonita, N16°11′38″ W91°18′35″, 283m, 1-IX-2002, L. Martín, black & white light trap, ECO-SC-E; 1 ♂, 1 ♀, Maravilla Tenejapa, Ejido Loma Bonita, N16°12′04″ W91°80′05″, 369m, 30-VIII-2002, L. Martín, black & white light trap, ECO-SC-E; 1 ♂, Res. Bios. "Montes Azules", Chajul, UNAM. 30-IV-1992, J. León, ECO-SC-E.

***Aclytia ventralis* (Guérin-Menéville, 1849)**. 1 ♂, Mexico, Chiapas, Ocozocuatla, Reserva "el Ocote" 9km SW Cuauhtemoc, 11-VII-1994, O. Gómez, ECO-SC-E.

***Agyrta dux* (Walker, 1854)**. 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, N16°11′19″ W91°18′25″, 241m, 31-VIII-2002, J. León, day flying moth, ECO-SC-E; 1 ♂, Campeche, Calakmul, Nuevo Becal, 23-VIII-1997, S. Uc, ligth trap, ECO-CH-E; 1 ♂, Calakmul, Entrada a Papagayo, 19-IX-1999, S. Uc, ECO-CH-E; 1 ♂, Calakmul: Calakmul, Dos naciones rural, 31-VIII-1999, S. Uc, ligth trap, ECO-CH-E; 1 ♀, Calakmul, Calakmul, Zona arqueológica 1, 18-III-2007, C. Pozo, ligth trap, ECO-CH-E.

***Belemnia inaurata* (Zulzer, 1776)**. 1 ♂, Mexico, Campeche, Calakmul, Dos Naciones, 13-VIII-2002, E. May, ECO-CH-E; 1 ♀, Quintana Roo, Solidaridad, Jardín Botánico, Puerto Morelos, 3-VIII-2001, E. May, ECO-CH-E.

***Correbia affinis* (Druce 1884)**. 1 ♂, 1 ♀, Mexico, Chiapas: Villa Flores, Reserva de Biosfera "La Sepultura", Ejido Sierra Morena, N16°09′32″ W93°35′27″, 1185m, 17-VII-2003, A. Molina, black & white light trap, ECO-SC-E; 1 ♂, Ocozocuautla, Res "El Ocote", Las Palmas, 8-VIII-1994, B. Gómez, ECO-SC-E.

***Correbia lycoides* (Walker, 1854).** 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, N16°11′38″ W19°18′35″, 283m, 1-X-2002, F. Pérez-Espinoza & L. Morfín, black & white light trap, ECO-SC-E.

***Correbia undulada* (Druce, 1884)**. 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, N16°11′38″ W19°18′35″, 283m, 1-X-2002, F. Pérez-Espinoza & L. Morfín, black & white light trap, ECO-SC-E.

***Correbidia fana* (Druce, 1900)** (Fig. 1). 1 ♂, Mexico, Chiapas, Miguel Ángel Albino Corzo, Reserva "El Triunfo" Maravilla Tenejapa, N15°39′42″ W92°48′57″, 2020m, 16-XI-2001, J. León & M. Girón, light trap, ECO-SC-E. As far as we know this species is reported herein for the first time in Mexico.

***Correbidia elegans* (Druce, 1884)**. 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, Reser. "El Triunfo" Maravilla Tenejapa, N16°11′38″ W19°18′35″, 283m, 1-X-2002, F. Pérez-Espinoza & L. Martín, black & white light trap, ECO-SC-E.

Correbidia germana (Rothschild, 1912). 2 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, Reser. "El Triunfo" Maravilla Tenejapa, N16°12′07″O91°18′04″, 380m, 28-VIII-2002, F. Pérez-Espinoza, black & white light trap, collecting time: 22:30, ECO-SC-E.

Cyanopepla bella (Guérin-Méneville, 1844). 1 ♂, Mexico, Chiapas, Tapalapa, 6 km NW Tapalapa, 14-III-1994, O. Gómez, day flying moth, ECO-SC-E; 1 ♂, Mexico, Chiapas, Tributaria, close to "cinco lagos", 21-II-1994, O. Gómez, day flying moth, ECO-SC-E.

Delphyre rubricincta (Hampson, 1898). 1 ♂, Mexico, Calakmul, Dos Lagunas, 14-XI-2006, E. May, light trap, ECO-CH-E.

Dinia eagrus (Cramer, 1779). 1 ♂, Mexico, Chiapas, Villa Corzo, Reserva "La Sepultura", Ejido Sierra Morena, 19-VII-2005, G. Ramírez-Cedillo, day flying moth, ECO-SC-E; 1 ♀, Tuxtla, Predio San Fco. Terán, 3-X-1974, A. Zacarías, day flying moth, ECO-SC-E; Ocosingo, Ejido Loma bonita, 3-IV-1982, A. Zacarías, 1 ♀, day flying moth, ECO-SC-E; Huehuetán, N15°00′38″-O92°24′07″, 34m, 3-X-1985, W. Rosa, 1 ♂, light trap, ECO-TAP-E; 1 ♂, Jalisco, de la Huerta, Ejido Zapata, 9-IX-1993, E. Gálvez & N. Barajas, day flying moth, ECO-SC-E.

Episcepsis inornata (Walker, 1856). 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido Loma bonita, N16°11′38″ W91°18′35″, 283m, 8-IV-2002, L. Martín, ECO-SC-E.

Epidesma oceola (Dyar, 1910). 1 ♂, Mexico: Chiapas: Reserva de Biosfera. "Montes azules", Chajul, 30-IV-1992, A. Zacarias, ECO-SC-E.

Eucereon erythrolepsis (Dyar, 1910). 1 ♀, Mexico, Tamaulipas, Reserva de Biosfera "El Cielo", 18-VII-2006, J. Luna.Cozar, ECO-SC-E.

Eucereon pseudarchias (Hampson, 1898). 1 ♂, Mexico, Chiapas, Reserva de Biosfera "Montes azules", Chajul, 11-VIII-1991, H. Chacón, ECO-SC-E.

Eucereon rosina (Walker, 1854). 1 ♂, Mexico, Quintana Rôo, Othón P. Blanco, Chetumal, alrededores de ECOSUR, 14-VI-2007, J.L. Salinas, light trap, ECO-CH-E; 1 ♀, Othón P. Blanco, Álvaro Obregón Nuevo, 16-III-2008, E. Dominguez, light trap, ECO-CH-E; 1 ♀, idem, 23-XII-2008, ECO-CH-E.

Eucereon tripunctatum (Druce, 1884). 1 ♂, 1 ♀, Mexico, Tamaulipas, Gómez Farias. Reserva de Biosfera "El Cielo", Rancho el cielo, N23°06′02″ W99°12′46″, 18-VIII-2006, miss-Barrera, black & white light trap, ECO-SC-E.

Heliura rhodophila (Walker, 1854). 1 ♂, Mexico: Campeche: Calakmul: Zoh Laguna, 23-VII-2007, E. Leyequien, light trap, ECO-CH-E.

Horama plumipes (Drury, 1773). 1 ♂, Mexico, Quintana Roo, Lázaro Cárdenas, Reserva "El Eden", 13-X-1995, O. Gómez, black & white light trap, ECO-SC-E; 1 ♂, 1 ♀, Quintana Roo, Solidaridad, Jardín Botánico Puerto Morelos, 30-VII-2001, E. May, light trap, ECO-CH-E; 1 ♂, Othón P. Blanco, Álvaro Obregón Nuevo, 1-XI-2008, E. Domínguez, light trap, ECO-CH-E.

Horama panthalon (Fabricius, 1793). 1 ♂, Mexico, Quintana Roo, Solidaridad, Jardín Botánico Puerto Morelos, 10-VIII-2001, E. May, light trap, ECO-CH-E; 1 ♂, idem, 31-VIII-2001, E. May, ECO-CH-E; 1 ♀, idem, 7-VIII-2001, E. May; 1 ♀, idem, 3-VIII-2001, E. May, ECO-CH-E; 1 ♂, idem, 8-VIII-2001, E. May, ECO-CH-E; 2 ♂, idem, 31-VII-2001, E. May, ECO-CH-E.

Ixylasia schausi (Druce 1896). 1 ♂, Mexico, Chiapas, Coapilla, 20-VIII-2008, Irma D. & Miss-B, black light trap, ECO-SC-E.; 1 ♀, Ocozocuautla, Reserva "El Ocote", 18-VII-1994, O. Gómez-N., black light trap, ECO-SC-E.

Nelphe relegatum (Schaus, 1911). 1 ♂, Mexico, Quintana Roo, Othón P. Blanco, Álvaro Obregón: 23-XII-2008, E. Domínguez, light trap, ECO-CH-E.

Sciopsyche tropica (Walker, 1854). 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ej. Loma Bonita, N16°11′16″ W91°18′24″, 241m, 27-VIII-2002, J. León-C, black and white light trap, ECO-SC-E.

Erebidae: Arctiinae: Arctiini: Euchromiina
(32 species)

Apeplopoda mecrida (Druce, 1889). 1 ♂, Mexico, Chiapas, Ángel Albino Corzo, Reserva "El Triunfo": Road to Mapastepec, N15°39′82″ W92°48′62″, 2180m, 19-XI-2001, A. Molina & Lind, black and white light trap, ECO-SC-E; 2 ♀, idem, 18-XI-2001, ECO-SC-E.

Apeplopoda ochracea (Felder, 1894). 1 ♂, México, Chiapas, Ángel Albino Corzo, Reserva "El Triunfo":

Camino a Mapastepec, N15°39′82″ W92°48′62″, 2180m, 19-XI-2001, A. Molina & Lind, black and white light trap, ECO-SC-E.

Andrenimorpha ethodaea (Druce, 1889). 1 ♂, México, Campeche, Calakmul, Dos lagunas, 11-VIII-2006, A. Xool, black and white light trap, ECO-CH-E; 1 ♂, Quintana Roo, Othón P. Blanco, Álvaro Obregón, 1-XI-2008, E. Domínguez, light trap, ECO-CH-E; 1 ♀, Othón P. Blanco: Chetumal: alrededores de ECOSUR, 13-VI-2007, N. Salas, light trap, ECO-CH-E; 1 ♂, idem, 14-VI-2007, E. May, ECO-CH-E; 1 ♂, idem, 22-II-2008, N. Salas; 1 ♂, idem, 22-II-2008, B. Prado, ECO-CH-E.

Cosmosoma auge (Linnaeus, 1767). 2 ♂, Mexico, Chiapas, Ángel Albino Corzo, Reserva "El Triunfo", N15°39′42″ W92°48′53″, 2020m, 18-XI-2001, A. Molina, light trap, ECO-SC-E; 1 ♀, Ocozocuatla, Reserva "El Ocote", 14 km, Norte Ejido Cuauhtemoc, 14-VIII-1994, O. Gómez, light trap, ECO-SC-E; 1 ♂, Ocosingo, Playón de la Gloría, 26-VI-2008. U. Caballero, light trap, ECO-SC-E.

Cosmosoma braconoides (Walker, 1854). 1 ♂,3 ♀, Mexico: Chiapas: Ocosingo: Lacanjá Chansayab, 22-VIII-2008, U. Caballero.P., light trap, ECO-SC-E; 2 ♂, Maravilla Tenejapa, Ej. Loma Bonita, N16°11′19″ W91°18′25″, 241m, 28-v-2002, U. Caballero, light trap, ECO-SC-E; 1 ♀, idem, 9-X-2002, ECO-SC-E.

Cosmosoma caecum (Hampson 1898). 2 ♂, Mexico, Chiapas, Maravilla Tenejapa: Ejido Loma bonita, N16°11′19″ W91°18′25″, 241m, 28-V-2002, J. León, ECO-SC-E; 1 ♂ 1 ♀, Ocozocuautla, Reserva "El Ocote", Ejido Nueva providencia, 10-II-1995, Gómez, light trap, ECO-SC-E; Maravilla Tenejapa, Ejido Loma Bonita, N16°11′24″ W19°18′28″, 241m, 4-IX-2002, light trap, J. León, ECO-SC-E; 1 ♂, Ocosingo, Lacanjá Chansayab, 22-VIII-2008, Irma-D, Miss-B, light trap, ECO-SC-E; 2 ♂, idem 22-VIII-2008, U. Caballero, ECO-SC-E.

Cosmosoma festiva (Walker, 1854). 1 ♂ 3 ♀, México, Campeche, Calakmul, Calakmul, 22-XI-2008, J. León, light trap, ECO-SC-E; 1 ♂, Chiapas, Maravilla Tenejapan, Ejido loma bonita, N.16°11′32″ W91°18′34″, 235m, 8-IV-2002, F. Pérez, light trap, ECO-SC-E; 3 ♂, San Fernando, Vicente Guerrero, 21-IX-2001, J. León, ECO-SC-E; 1 ♀, idem, 22-XI-2008, J. León, ECO-SC-E; 1 ♂, Campeche, Calakmul, Dos Lagunas Sur, 12-XI-2006, R. Plantaz, light trap, ECO-CH-E; 1 ♂, Quintana Roo, Othón P. Blanco, Chetumal, alrededores de ECOSUR, 13-VI-2007, M. Bálcazar, light trap, ECO-CH-E; 1 ♀, Othón P. Blanco, Álvaro Obregón Nuevo, 6-VII-2008, E. Domínguez, light trap, ECO-CH-E; 1 ♀, idem, 5-VII-2008, ECO-CH-E; 1 ♂, idem, 27-IX-2008, ECO-CH-E; 1 ♂, idem, 1-II-2009, ECO-CH-E; 1 ♂, Yucatán, Oxkutzcab, Reserva Kinuc, 27-II-2008, E. Domínguez, light trap, ECO-CH-E; 1 ♂, idem, 28-II-2008, ECO-CH-E.

Cosmosoma impar (Walker, 1854). 2 ♀, Mexico, Chiapas, Ocosingo, Lacanjá Chansayab, 22-VIII-2008, Irma-D & Miss-B, light trap, ECO-SC-E; 2 ♂, idem, 22-VIII-2008, J. León, ECO-SC-E; 2 ♂, idem, 28-VIII-2008, U. Caballero, ECO-SC-E.

Cosmosoma impudica (Schaus, 1911). 2 ♀, Mexico, Chiapas, Ángel Albino Corzo, Reserva "El Triunfo", N15°39′42″ W92°48′53″, 2020m, 19-XI-2008, A. Molina-Linda, light trap, ECO-SC-E; 3 ♂, idem, 3-VIII-2008, J.A. Arreola, ECO-SC-E; 1 ♀, idem, 29-IV-1997, L. Solis-P., ECO-SC-E; 2 ♂, idem, 16-V-2009, J. León, ECO-SC-E; 1 ♂, Cacahoatán, Camino Azteza volcán Tacaná, N15°05′59″ W92°08′16″, 1700m, 13-VI-2009, C. Magaña, Bosque Mesófilo, light trap, ECO-TAP-E; 8 ♂, 3 ♀, Ángel Albino Corzo, Reserva Biosfera "El Triunfo", N15°39′24″ W92°48′30″, 1998m, 2-VII-2008, J. Macias, light trap, ECO-TAP-E; 1 ♂, idem, 7-VII-2003, B. Gómez, ECO-TAP-E.

Cosmosoma sectinota (Hampson, 1898). 1 ♀, Mexico, Chiapas, Coapilla, 20-VIII-2008, Irma D. & Miss-B, light trap, ECO-SC-E; 1 ♂, Tapalapa, 6 km Noreste de Tapalapa, 12-III-1994, O. Gómez, ECO-SC-E.

Cosmosoma stilbosticta (Butler, 1876).: 2 ♂ 1 ♀, Mexico, Chiapas, Lacanjá Chansayab, 23-VIII-2008, J. León, ECO-SC-E; 1 ♂,Chiapas, Playón de la Gloria, 26-VI-2008, J. León, light trap, ECO-SC-E; 1 ♀, Maravilla Teneja, Ejido loma bonita, N16°11′24″ W91°18′28″, 241m, 4-IX-2002, F. Pérez-Espinoza, ECO-SC-E; 1 ♂, Maravilla Teneja, Ejido loma bonita, N16°11′38″ W91°18′35″, 283m, 11-IV-2002, L. Martin, ECO-SC-E.

Cosmosoma teuthras cingulatum (Butler, 1876).: 2 ♀, Mexico, Campeche, Calakmul, Calakmul, 22-XI-2008, J. León, light trap, ECO-SC-E; 2 ♂, mismos datos, 22-X-2008, ECO-SC-E; 1 ♂, Calakmul, Dos Lagunas, 14-II-2006, N. Salas, light trap, ECO-CH-E; 5 ♂, Chiapas: Coapilla, 21-VIII-2008, J. León, light trap, ECO-SC-E; 3 ♂, idem, 20-VIII-2008, J. León, ECO-SC-E; 4 ♀, Ocosingo, Lacanjá Chansayb, 22-VIII-2008, J. Léon, light trap, ECO-SC-E; 3 ♂, San Fernando, Vicente Guerrero, 22-IX-2001, J. León, light trap, ECO-SC-E; 1 ♀, Ángel Albino Corzo, Reserva "El Triunfo", 2014m, 17-XI-2001, J. León, light trap, ECO-SC-E; 1 ♂, Maravilla Tenejapa, Ejido loma bonita, N.16°12′01″-W91°18′27″, 370m, 2-VI-2002, F. Pérez, light trap, ECO-SC-E; 1 ♂, Chiapas, Tuxtla Chico, Campo Exp. Rosário Izapa, N.14°58′29″ W92°09′18″, 443m, 14-VI-1997, L. Jiménez, light trap, ECO-TAP-E; 1 ♂, idem, C. Cadena, ECO-TAP-E; 1 ♂, idem, 21-V-1999, A. Trejo, ECO-TAP-E; 1 ♂, Tuxtla Chico, 1ª Sección medio monte, N14°52′43″ W92°12′52″, 160m, 6-VI-1997, A. Dávila, light trap, ECO-TAP-E; 1 ♀, Unión Juárez, N15°03′45″ W92°04′50″, 1319m, 21-V-1999, V. Castillejos, light trap,

ECO-TAP-E; 1 ♂, Tapachula, Parque Ecológico, N14°53′08″ W92°17′32″, 122m, 1-V-2005, A. Niño, light trap, ECO-TAP-E; 2 ♀, Quintana Roo, Lázaro Cárdenas, Reserva Biosfera "El Eden", 13-X-1995, O. Gómez, light trap, ECO-SC-E; 1 ♂, idem, 13-IX-1995, ECO-SC-E; 1 ♂, idem, 22-IX-1995, ECO-SC-E; 1 ♂, Othón P. Blanco, Chetumal, 13-II-2007, N. Salas, light trap, ECO-CH-E.

Cosmosoma xanthostictum (Hampson, 1898). 2 ♂, Mexico, Chiapas, Ocosingo, Lacanjá Chansayab, 22-VIII-2008, Irma D, light trap, ECO-SC-E.

Chrysocale principalis (Walker, 1865). 1 ♂, Mexico, Chiapas, Berriozabal: 8km norte de Berriozabal, 15-IX-1992, R. Jones, ECO-SC-E.

Dycladia correbioides (Felder, 1874). 1 ♂, Mexico, Chiapas, Coapilla, 20-VIII-2008, U. Caballero, light trap, ECO-SC-E.; 1 ♂ 1 ♀, Angel Albino Corzo, reserva "El Triunfo", N. 15°39′42″ W92°48′53″, 2020m, 16-XI-2001, J. León, H. Linda, M. Girón, light trap, ECO-SC-E; 1 ♀, idem, 19-XI-2001, A. Molina, ECO-SC-E; 1 ♀, San Fernando, Vicente Guerrero, 22-IX-2001, J. León, trampa de luz, ECO-SC-E; 1 ♂, Tamaulipas, Gomes Farias, Reserva de Biosfera "El Cielo", N.23°06′02″ W99°12′46″, 18-VII-2006, Miss Barrera, ECO-SC-E.

Homoeocera gigantea (Druce, 1884). 1 ♂, 1 ♀, Mexico, Chiapas, Tapalapa, 6 km Nw Tapalapa, 12-III-1994, O. Gómez, ECO-SC-E; Albino Corzo, Reserva "El Trinunfo", 2020m, 18-X-1997, A. Morón-R. 1 ♂, UV light trap, ECO-SC-E; 1 ♀, idem, 25-II-1998, O. Gómez, ECO-SC-E; 1 ♀, idem, 24-II-1998, O. Gómez, ECO-SC-E; 1 ♀, 1 ♂, idem, 19-XI-2001, A. Molina, ECO-SC-E; 1 ♀, idem, 18-XI-2001, A. Molina, ECO-SC-E; 1 ♂, idem, 29-IV-1997, L. Solís, ECO-SC-E; 3 ♂, idem, 16-V-2009, J. León, ECO-SC-E; 1 ♀, idem, mismos datos 22-V-2008, J. León, ECO-SC-E; 1 ♂, idem, 22-V-2008, J. A. Arreola ECO-SC-E; 1 ♂, idem, 18-X-1997, O. Gómez ECO-SC-E; 1 ♂, idem, 29-II-1997, O. Gómez, ECO-SC-E; 1 ♂, Coapilla, 21-VII-2008, Irma D, y Miss B., ECO-SC-E; 1 ♂, idem, 20-VII-2008, J. León, ECO-SC-E; 1 ♂, Ángel Albino Corzo, El Triunfo, N.15°39′24″ W92°48′30″, 1998m, 14-V-2005, H. Gallardo, light trap, ECO-TAP-E; 1 ♂, idem, 2-VII-1998, J. Macias, ECO-TAP-E.

Homoeocera rodriguezi (Druce, 1890). 1 ♂, Mexico, Chiapas, Coapilla, 21-VIII-2008, U. Caballero, light trap, ECO-SC-E.

Isanthrene cajetani (Rothschild, 1911). 1 ♂, Mexico, Chiapas, Ángel Albino Corzo, Reserva "El Triunfo", 18-X-1997, O. Gómez, light trap, ECO-SC-E; 1 ♂, Ángel Albino Corzo, Finca Prusia, N15°42′51″ W92°47′39″, 1051m, 29-VI-1998, J. Macias, light trap, ECO-TAP-E; 1 ♂, Huehuetán, N15°00′38″ W92°24′07″, 34m, 7-II-1986, W. Rosa, light trap, ECO-TAP-E.

Isanthrene perbosci (Guérin-Menéville, 1844). 1 ♀, Mexico, Quintana Roo, Othón P. Blanco, Chetumal, 2-II-2008, N. Salas, light trap, ECO-CH-E; 1 ♂, Yucatán, Oxkutzcab, Reserva Kinuc, 20-VIII-2008, light trap, ECO-CH-E.

Leucotmemis nexa (Herrich-Schäffer, [1854]). 1 ♂, Mexico, Chiapas, Ocosingo, Playón de la gloria, 26-VI-2008, L.D., light trap, ECO-SC-E; 1 ♀, Ocosingo, Lacanjá chansayab, 22-VIII-2008, U. Caballero, ECO-SC-E; 1 ♂, Coapilla, 20-VIII-2008, U. Caballero, ECO-SC-E; 1 ♂, Quintana Roo, Othon P. Blanco, Estero Franco, 19-IX-1991, E. Escobedo, ECO-SC-E; 1 ♂ 1 ♀, Othón P. Blanco, Álvaro Obregón, Nuevo, 23-XII-2008, E. Domínguez, light trap, ECO-CH-E.

Loxophlebia imitata (Druce, 1884). 1 ♀, Mexico, Quintana Roo, Othón P. Blanco, Chetumal: alrededores del ECOSUR, 14-VI-2007, M. Bálcazar, light trap, ECO-CH-E; 1 ♂, idem, 14-VI-2007, N. Salas, ECO-CH-E; 1 ♂, idem, 22-II-2008, N. Salas, ECO-CH-E; 1 ♀, Othón P. Blanco, Álvaro Obregón Nuevo, 5-VII-2008, E. Domínguez, light trap, ECO-CH-E; 1 ♂, idem, 27-IX-2008, ECO-CH-E.

Macrocneme chrysitis (Guérin-Menéville, 1844). 2 ♀, Mexico, Chiapas, Tenejapa, Ejido Loma bonita, N16°11′19″ W91°18′25″, 241m, 28-V-2002, L. Martín, ECO-SC-E; 1 ♂, idem, 28-V-2002, J. León, ECO-SC-E; 1 ♂, idem, 7-X-2002, J. León, ECO-SC-E; 1 ♂, idem, 8-IV-2002, F. Pérez, ECO-SC-E; 1 ♀, idem, 8-IV-2002, L. Martín, ECO-SC-E; 3 ♂, Coapilla, 26-V-2008, Irma-D y Miss-B, light trap, ECO-SC-E; 3 ♀, Reserva "Montes Azules", 4-VII-1992, J. León, light trap, ECO-SC-E; 2 ♂, Ocosingo, Playón de la Gloría, 26-V-2008, J. León, light trap, ECO-SC-E; 2 ♂ 3 ♀, Tamaulipas, Gómez Farias, Reserva biosfera "el cielo", Rancho "el cielo", N23°06′02″ W99°12′46″, 18-VII-2006, J. León, ECO-SC-E.

Nyridela xanthocera (Walker, 1856). 1 ♂, 1 ♀, Mexico, Chiapas, Coapilla, 21-VIII-2008, J. León-C, light trap, ECO-SC-E; 1 ♂, idem, 21-VIII-2008, Irma D., ECO-SC-E; mismos datos 20-VIII-2008, U. Caballero, ECO-SC-E; 1 ♂, México, Chiapas, Coapilla, 20-VIII-2008, U. Caballero, light trap, ECO-SC-E.

Pheia albisigna (Walker, 1854). 1 ♂, Mexico, Chiapas, Villa Flores, Reserva Biosfera "La Sepultura", Ejido Sierra Morena casa ejidal, N.16°69′32″ W93°35′27″, 1185m, 17-VII-2003, A. Molina, light trap, ECO-SC-E; 1 ♀, Ocosingo, Playa de la Gloria, 26-VI-2008, U. Caballero, light trap, ECO-SC-E.

Phoenicoprocta mexicana (Walker, 1865). 1 ♂, Mexico, Chiapas, Coapilla, 20-VII-2008, J. León-C, light trap, ECO-SC-E; 1 ♀, idem, 27-V-2008, J. León, ECO-SC-E.

Pseudohyaleucerea vulnerata vulnerata (Butler, 1875). 1 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido loma bonita, N.16°12′03″ W91°18′40″, 231, 1-IX-2002, J. León, light trap, ECO-SC-E; 1 ♂, Ocosingo, Lacanjá

Chansayab, 22-VIII-2008, U. Caballero, light trap, ECO-SC-E

Psilopleura vittata (Walker, 1865). 1 ♂, 1 ♀, Mexico, Tamaulipas, Gómez Farias, Reserva de Biosfera "El Cielo", N.23°06′02″ W99°12′46″, 18-VII-2006, I.D. Miss Barrera, ECO-SC-E; 1 ♂, idem, 18-VIII-2006, I.D. Miss-Barrera, ECO-SC-E; 1 ♀, idem, 19-VII-2006, J. León, ECO-SC-E; 1♀, idem, 18-VII-2006, J. León, ECO-SC-E; 1 ♂ 1 ♀, Chiapas, Maravilla Tenejapa, Ejido loma bonita, N.16°11′23″ W91°18′34″, 236m, 8-IV-2002, J. León, ECO-SC-E.

Psoloptera basilfulva (Schaus, 1894). 2 ♂, Mexico, Chiapas, Maravilla Tenejapa, Ejido loma bonita, N.16°11′32″ W91°18′34″, 235m, 2-IX-2002, F. Pérez, ECO-SC-E; 1 ♀, idem, 241m, 9-X-2002, J. León, ECO-SC-E; 1 ♀, idem, 283m, 1-IX-2002, F. Pérez, ECO-SC-E; 1 ♀, idem, 380m, 28-VIII-2002, F. Pérez, ECO-SC-E; 1 ♂, idem, 369m, 31-V-2002, J. León, ECO-SC-E; 1♂, idem, 235m, 2-IX-2002. F. Pérez, ECO-SC-E.

Scena potentia (Druce, 1894). 1 ♂, 1 ♀, Mexico, Chiapas, Coapilla, 21-VIII-2008, U. Caballero, ECO-SC-E; 1 ♂, idem, 21-VIII-2008, J. León, ECO-SC-E; 1 ♂, idem, 21-VIII-2008, Irma D, ECO-SC-E; 1 ♂, idem, 20-VIII-2008, U. Caballero, ECO-SC-E; 1 ♀, idem, 20-VIII-2008, J. León, ECO-SC-E; 1 ♀, idem, 20-VIII-2008, Irma D, ECO-SC-E; 1 ♂, 1 ♀, Albino Corzo, Reserva Biosfera "El Triunfo", 16-V-2009, J. León, ECO-SC-E; 1 ♂, idem, 3-VIII-2008, J. León, ECO-SC-E; 1 ♂, 1 ♀, Ocosingo, Playón de la Gloría, 26-VI-2008, J. León, ECO-SC-E.

Sphecosoma felderi (Druce, 1883). 1 ♂, Mexico, Chiapas, Coapilla, 2O-VIII-2008, Irma I, light trap, ECO-SC-E; 1 ♂, idem, 20-VIII-2008, U. Caballero, ECO-SC-E.

Syntomeida epilais epilais (Walker, 1854). 1 ♂, Mexico, Campeche, Calakmul, Calakmul, 6-VI-1997, S. Uc, light trap, ECO-CH-E; 1 ♂, Calakmul, Dos Lagunas, 12-II-2006, E. May, light trap, ECO-CH-E; 1 ♂, Chiapas, Maravilla Tenejapa, Ej. Loma Bonita, N16°11′24″ W91°18′28″, 241m, 27-V-2002, J. León, light trap, ECO-SC-E; 1 ♀, Quintana Roo, Isla Cozumel, Fiesta Americana Hotel, 20-IX-1996, O. Gómez, light trap, ECO-SC-E; 1 ♀, idem, 10-III-1997, P. Beutelspacher, ECO-SC-E; 1 ♀, Solidaridad, Jardín Botánico, Puerto Morelos, 6-VII-2002, E. May, light trap, ECO-CH-E; 2 ♂, Othón P. Blanco: Álvaro Obregón Nuevo, 2-II-2009, E. Domínguez, light trap, ECO-CH-E.

Syntomeida melanthus albifasciata (Butler, 1876). 1 ♂, Mexico, Tamaulipas, Gómez Farias, Reserva Biosfera "El Cielo", N23°06′02″ W99°12′46″, 19-VII-2006, J. León, light trap, ECO-SC-E; 1 ♂, 2 ♀, idem, 18-VII-2006, J. León, ECO-SC-E.

Among all the reported species *Correbidia fana* (Druce) (Ctenuchina) (Figure 1) is known from the cloud forests of Merida, Venezuela, the high regions of Río Negro, Colombia, and the central region of Ecuador, in South America, but it has been also reported in the mountainous regions of Baja and Alta Verapaz, Guatemala, in Central America (Druce, 1900; Hampson, 1914; Draudt, 1917, Hernández-Baz et. al, 2008). It is now reported from the cloud forests in the South of Chiapas and it constitutes a first report of the species in Mexico (Figure 2).

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