Acta Zoológica Mexicana (nueva serie), 2026, Volumen 42, 1–15.
https://doi.org/10.21829/azm.2026.4212820
https://zoobank.org/urn:lsid:zoobank.org:pub:E4B8284D-6026-4445-ACB8-001CC5306B6D

Original article

An illustrated catalogue of the Castniidae (Lepidoptera) of the "Dr. Alfredo Barrera Marín" national insect collection of the Museum of Natural History and Environmental Culture of Mexico City, Mexico

Catálogo ilustrado de los Castniidae (Lepidoptera) de la colección nacional de insectos "Dr. Alfredo Barrera Marín" del Museo de Historia Natural y Cultura Ambiental de la Ciudad de México, México

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Acta Zoológica Mexicana (nueva serie)

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How to cite:
García-Díaz, J. J., Díaz-Batres, M. E. E. (2026) An illustrated catalogue of the Castniidae (Lepidoptera) of the "Dr. Alfredo Barrera Marín" national insect collection of the Museum of Natural History and Environmental Culture of Mexico City, Mexico. *Acta Zoológica Mexicana (nueva serie)*, 42, 1–15.

10.21829/azm.2026.4212820
elocation-id: e4212820

Received: 25 November 2025
Accepted: 13 May 2026
Published: 28 May 2026

Responsible editor: Francisco J. Cabrero Sanudo

ABSTRACT. We present an illustrated inventory of the castniids deposited at the Museum of Natural History and Environmental Culture of Mexico City, including general information on the natural history, distribution, sexual dimorphism, and other details of each listed taxon. We also provide brief historical information on the Lepidoptera

collection of the museum. The examined material comprises 48 specimens belonging to four genera, distributed among 11 species and two non-nominotypical subspecies (13 taxa). The possible provenance of the *Imara satrapes* (Kollar, 1839) specimen from the Müller Collection is discussed, and the presence of this species in Mexico is rejected.

Key words: castniid; Castniini; geographic distribution; MHNCA; moths; Neotropical

RESUMEN. Presentamos un inventario ilustrado sobre los cástnidos depositados en la colección de Lepidoptera del Museo de Historia Natural y Cultura Ambiental de la Ciudad de México, con información general sobre la historia natural, distribución, dimorfismo sexual y otros detalles de cada taxón listado. Además, incluimos brevemente información histórica sobre la colección de Lepidoptera del museo. El material examinado representa 48 ejemplares de cuatro géneros, repartidos en 11 especies y dos subespecies no nominales (13 taxones). Se discute la posible procedencia del ejemplar de *Imara satrapes* (Kollar, 1839) de la Colección Müller y se rechaza la presencia de esta especie en México.

Palabras clave: cástnido; Castniini; distribución geográfica; MHNCA; Neotropical; polillas

INTRODUCTION

The Museum of Natural History and Environmental Culture of Mexico City (MHNCA) is in the second section of Chapultepec Forest, an urban park situated in the western area of Mexico City. The MHNCA was inaugurated on 24 October 1964, and a year after its opening, its insect collection began to take shape through donations from other institutions, as well as from specialists and enthusiasts in the field of entomology. The collection is named "Dr. Alfredo Barrera Marín" in recognition of its founder, who was the museum's first director and led it for 10 years. At present, the collection comprises a little over 50,000 specimens belonging to various insect orders, with Coleoptera and Lepidoptera being particularly well represented.

One of the several collections donated to the MHNCA was the "Müller Collection" of Lepidoptera, assembled by the naturalist Roberto Müller (1859–1932), son of Dr. W. Müller and Paulina B. Sartorius, a Mexican by birth, and daughter of the renowned naturalist Carlos C. Sartorius, owner of the "El Mirador" estate in Totutla, Veracruz, Mexico (Hoffmann, 1932; De la Maza-Elvira *et al*., 2017). Roberto Müller is an important figure in Mexican lepidopterology, as during the first two decades of the twentieth century he collected and received material from various states across the country, from which a large number of new species of butterflies and moths were described (Hoffmann, 1932; De la Maza-Elvira *et al*., 2017). Upon Müller's death, the collection came under the care of Alfonso Dampf, who deposited it in the Escuela Nacional de Ciencias Biológicas of the Instituto Politécnico Nacional, except for the Sphingidae, which were given to Hermann Mooser (Díaz-Batres & Barrera, 1981).

The Müller Collection remained in storage for several years without being curated, which caused severe damage to the specimens (some irreparable), and in 1972 it was deposited in the MHNCA under the supervision of Alfredo Barrera and María Eugenia Díaz-Batres. The latter restored and curated the collection, managing to salvage 12,636 specimens (of the ten cabinets that originally made up the Müller Collection, only five were preserved). The Müller Collection represents a classic example of an early twentieth-century private entomological collection, as it

mostly contains only one or two specimens of each species, preferably a male and a female of each (Díaz-Batres & Barrera, 1981).

Another important Lepidoptera collection housed in the MHNCA is that of Agustín Luis Arroyo Díaz González (1909–1980), an accountant by profession but a keen collector since childhood, who was a founding member of the Sociedad Mexicana de Lepidopterología, A.C. This collection comprises 3,876 specimens (mostly butterflies, but also a few moths), and was deposited in the MHNCA in 2011.

In addition to these two collections, the Lepidoptera material of the MHNCA originates from the personal collection of its curator, as well as from university students and both Mexican and foreign researchers. Among the Lepidoptera material deposited in the MHNCA are the Castniidae, a family of moths with diurnal or crepuscular habits, distributed across the Americas, Australia, and Southeast Asia (Miller, 1986, 2000; González & Stüning, 2007; Moraes & Duarte, 2014; García-Díaz, 2023). Species of this family are characterised by their endophagous larvae and by the territorial behaviour of most adult males (Miller, 1972; González & Stüning, 2007; García-Díaz *et al*., 2019; van den Berghe *et al*., 2020). The tribe Castniini is Neotropical in distribution and the most diverse, comprising approximately 90 species and 86 non-nominotypical subspecies. In Mexico, since the second decade of the twenty-first century, studies on Castniidae have increased considerably, leading to the rediscovery and description of new taxa (García-Díaz *et al*., 2019; García-Díaz & Turrent-Carriles, 2022).

Over the past two decades, several authors have published checklists of Castniidae from various entomological collections worldwide (*e.g.*, González & Stüning, 2007; González *et al*., 2010). For Mexico, only the brief lists by Beutelspacher (1988, 1992) on the Castniidae from the Müller Collection of the MHNCA, and the work by Morales-Morales *et al*. (2015) on the castniids of the UNACH collection in Villaflores, Chiapas, are known. Considering that species catalogues contribute to our understanding of biodiversity by providing relevant information on the taxonomy, distribution, and ecology of species (Moraes *et al*., 2025), and that the insect collection of the MHNCA is one of the most important and oldest in Mexico, the aim of the present study is to illustrate and document the Castniidae taxa deposited in its Lepidoptera collection.

MATERIALS AND METHODS

For this work, we mainly follow taxonomic arrangements as provided by López-Godínez and Porion (2012), Moraes and Duarte (2009, 2014), González *et al*. (2019), García-Díaz and Turrent (2022) and García-Díaz *et al*. (2022), with modifications for some taxa, mainly based on Lamas (1995). The photos of the specimens illustrated in Figures 1–4 were taken with a Fujifilm FinePix HS20EXR camera and edited with Adobe Photoshop 22.0.0. Ecological, distributional, historic, and morphological information on castniids was gleaned from recent works on Mexican species (*e.g.*, García-Díaz, 2022a, 2022b, 2023; García-Díaz *et al*., 2025a, 2025b), as well as information published on the citizen science platform iNaturalist (2025).

RESULTS

***Athis* Hübner, [1819]**

1. ***Athis flavimaculata* (Miller, 1972)** (Figs. 1A, 1B)

Remarks: Species with restricted distribution on the Pacific slope of Mexico, from central Jalisco to northeastern Oaxaca (García-Díaz *et al*., 2025a). The specimen in the MHNCA from Tonatico

(Fig. 1A) is one of five known specimens from the State of Mexico. Two diagnostic characteristics of *A. flavimaculata* are that the postdiscal band of the hindwings contains yellow spots and that the margin of the hindwings is completely black (Miller, 1972; García-Díaz *et al*., 2025a). It exhibits considerable sexual dimorphism in the forewings, with a greater contrast between the base colour and other markings in females than in males; in addition, females are usually larger, with more rounded wings and a larger and more robust abdomen (Figs. 1A, 1B) (García-Díaz *et al*., 2025a). Five different hosts of *A. flavimaculata* are known, all of the genus *Tillandsia* L., 1753 (Bromeliaceae) (García-Díaz *et al*., 2025a).

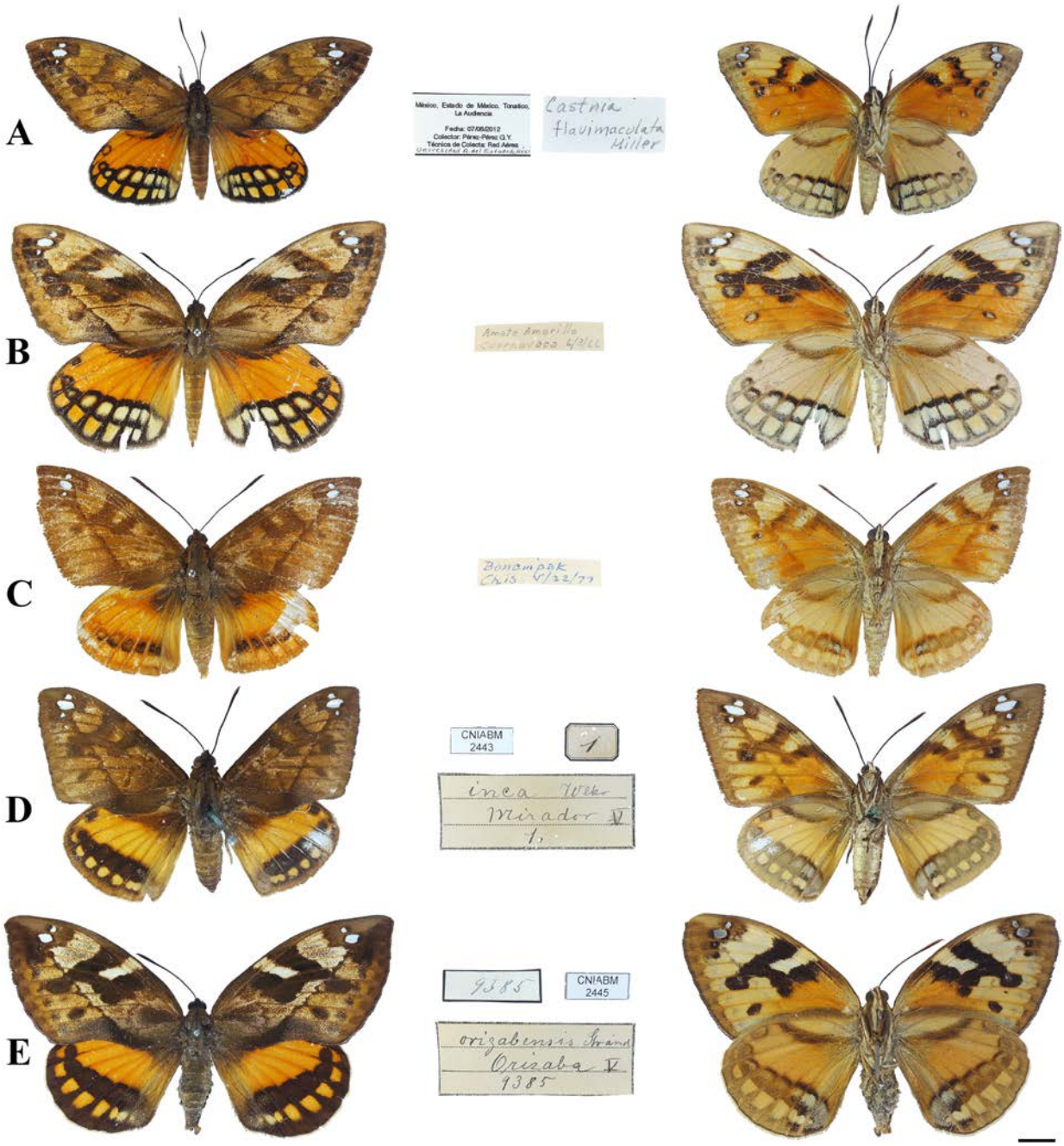

Figure 1. Males **(A, C, D)** and females **(B, E)** in dorsal (left) and ventral (right) view of **(A, B)** *Athis flavimaculata*, **(C)** *A. inca inca* (ex coll. Agustín Arroyo) and **(D, E)** *A. inca orizabensis* (ex coll. Roberto Müller). Scale bar = 1 cm.

Material examined: 1♂, Tonatico, La Audiencia, 07-VI-2012, Colector Pérez-Pérez G.Y., Técnica de Colecta: Red Aérea, Universidad Autónoma del Estado de México; 1♂, no data; 1♂, 1♀, Amate Amarillo, Cuernavaca, 06-III-66, ex coll. Agustín Arroyo.

2. ***Athis inca inca* (Walker, 1854)** (Fig. 1C)
Remarks: This subspecies has been recorded from Mexico to Panama (Miller, 1972; iNaturalist, 2025). However, the high variability of this taxon (as in most Castniiidae), as well as the other recognised subspecies, and the similarity with other species (*e.g.*, *Athis clitarcha* (Westwood, 1877)) have made it difficult to define the "*inca* group" and therefore the geographical distribution of its taxa (González *et al*., 2008; García-Díaz *et al*., 2024, 2025a), so a taxonomic revision is required to clarify the status and distribution of each taxon. *Athis inca inca* exhibits considerable sexual dimorphism in the forewings and its host plants have been recorded as epiphytic bromeliads (García-Díaz, in prep.).

Material examined: 1♂, Bonampak, Chis., V/22/[19]77, ex coll. Agustín Arroyo.

3. ***Athis inca orizabensis* (Strand, 1913)** (Figs. 1D, 1E)
Remarks: *Athis inca orizabensis* has been recorded from Tamaulipas to Chiapas, Mexico (Miller, 1972; González *et al*., 2008; Niño-Maldonado *et al*., 2013; iNaturalist, 2025). Its wing pattern is very similar to that of *A. i. inca*, but it tends to have a darker base coloration, the postdiscal band of the hindwings is wider, and the margin tends to be black instead of orange (Figs. 1D, 1E) (Miller, 1972). Males are easily distinguished from females, as females are larger, with more rounded wings, and the forewings have whitish tones between the postbasal and discal regions (Figs. 1D, 1E). Like the nominotypical subspecies, the larvae of *A. i. orizabensis* feed on epiphytic bromeliads (García-Díaz, in prep.).

Material examined: 1♂, *Castnia inca*, Mirador Ver., V, ex coll. Roberto Müller, CNIABM 2443; 1♂, *Castnia inca*, Córdoba Ver., V, ex coll. Roberto Müller, CNIABM 2444; 1♀, Orizaba Ver., V, ex coll. Roberto Müller, CNIABM 2445; 1♀, Orizaba Ver., V, ex coll. Roberto Müller, CNIABM 2446; 2♂♂, Fortín de las Flores, 14-VI-1969, R. F. de la Maza R. col.; 1♂, Fortín de las Flores, VIII-1970, *leg.* R. F. de la Maza R.; 1♂, Fortín de las Flores, 19-V-1969, *leg.* R. F. de la Maza R.; 2♂♂, Fortín de las Flores, 21-VI-1969, R. F. de la Maza R. col.; 2♂♂, Fortín de las Flores, 23-X-1969, R. F. de la Maza R. col.; 4♂♂, no data, ex coll. Agustín Arroyo.

4. ***Athis jaliscana* López-Godínez & Porion, 2012** (Fig. 2A)
Remarks: Endemic species of the Pacific slope of Mexico, distributed from Jalisco to Guerrero (García-Díaz *et al*., 2019, 2025b). The specimen in the MHNCA, from the Müller Collection, is the oldest known specimen and the only one known from Guerrero (Fig. 2A). Beutelspacher (1988, 1992) mistakenly cited this specimen as "*Athis ahala*"; however, this species is distributed exclusively in South America. *Athis jaliscana* belongs to the "*ahala* group", which is characterised by its small size. It uses *Tillandsia* species as host plants, and males fly in the tree canopy at heights exceeding 4 m above the ground (García-Díaz *et al*., 2025b). It is easily distinguished from *A. delecta* by differences in the wing pattern, mainly by having more than one hyaline spot in the apical region (López-Godínez & Porion, 2012; García-Díaz *et al*., 2025b).

Material examined: 1♂, Guerrero, mayo, ex coll. Roberto Müller, No. 3517.

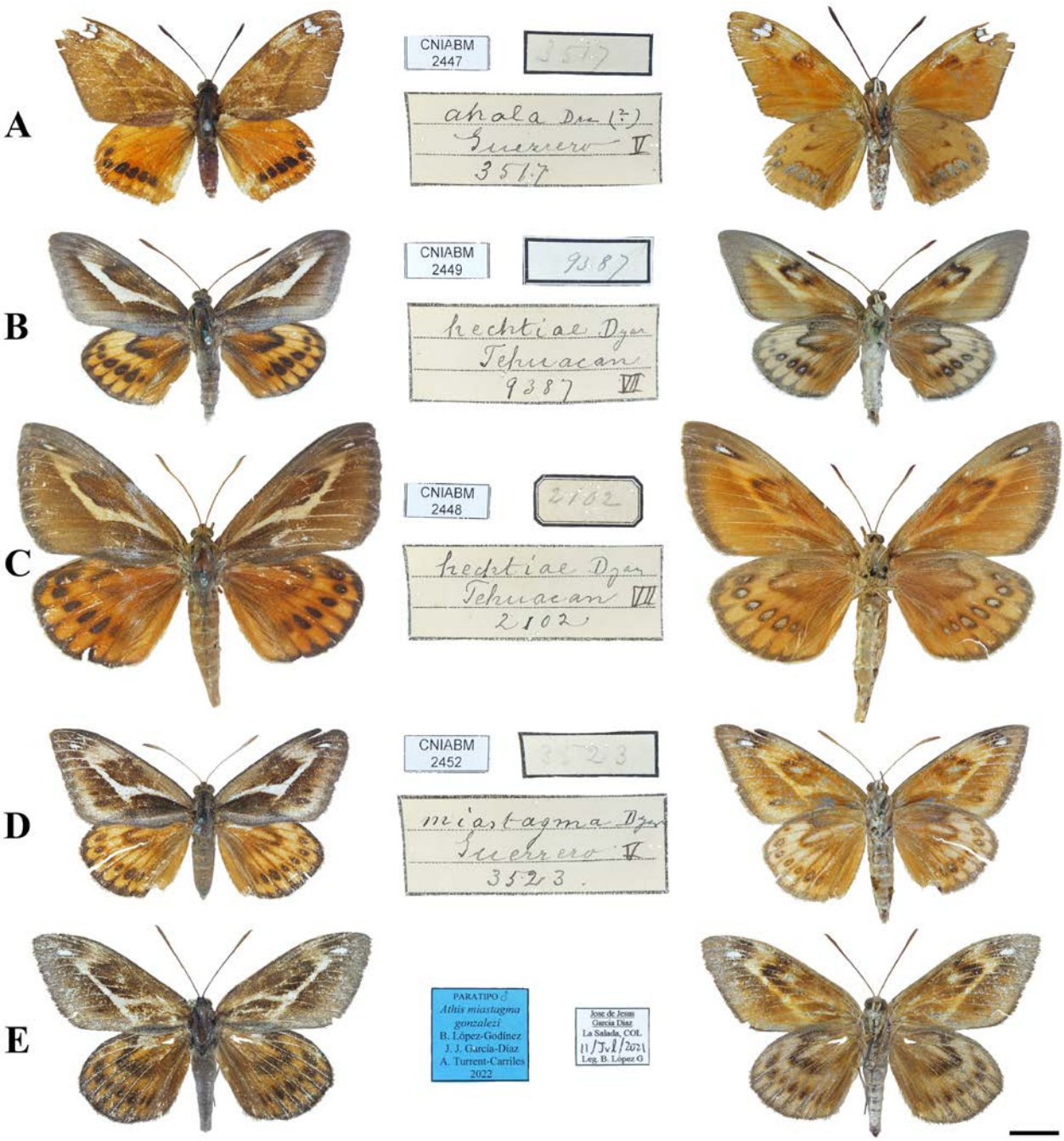

Figure 2. Males **(A, B, D, E)** and female **(C)** in dorsal (left) and ventral (right) view of **(A)** *Athis jaliscana* (ex coll. Roberto Müller), **(B, C)** *A. hechtiae* (ex coll. Roberto Müller), **(D)** *A. miastagma miastagma* (ex coll. Roberto Müller) and **(E)** *A. miastagma gonzalezi* (Paratype). Scale bar = 1 cm.

5. ***Athis hechtiae* (Dyar, 1910)** (Figs. 2B, 2C)

Remarks: Endemic species of the Tehuacán-Cuicatlán Valley, in the states of Oaxaca and Puebla, Mexico (García-Díaz *et al*., 2020, 2022; González *et al*., 2021). It was described from material collected by Roberto Müller in Tehuacán, Puebla, near the former El Riego Hacienda (Dyar, 1910; Hoffmann, 1932). *Athis hechtiae* exhibits marked sexual dimorphism, as the base coloration of the forewings of the males is grey, while in the females it is orange-brown; in addition, the females can be twice the size of the males and have a long, orange abdomen, while in the males it is grey and smaller (Figs. 2B, 2C). Some specimens, regardless of sex, may have a white spot in the apical

region of the forewings (García-Díaz *et al*., 2022). To date, only *Hechtia tehuacana* B.L. Rob., 1904 (Bromeliaceae) has been recorded as its larval foodplant (García-Díaz *et al*., 2020, 2022; González *et al*., 2021).

Material examined: 1♂, Cat. No. 2449, No. 9387, Tehuacán, julio, ex coll. Roberto Müller; 1♀, Cat. No. 2448, No. 2102, Tehuacán, julio, ex coll. Roberto Müller.

6. ***Athis miastagma miastagma* (Dyar, 1925)** (Figs. 2D)
Remarks: Taxon described from material from Roberto Müller in the state of Guerrero, Mexico (Dyar, 1925). According to Hoffmann (1932), Müller's material from "Guerrero" or "Estado de Guerrero" was collected by H. Krueguer, but he never included precise information about the collecting sites, which has made it impossible to know the exact type locality of this and many other Lepidoptera described from Müller's material. Besides the type (deposited in the National Museum of Natural History – Smithsonian Institution, NMNH) and the specimen in the MHNCA (Fig. 2D), only four females (deposited in the Colección Nacional de Insectos of the IBUNAM (CNIN) and in the McGuire Center for Lepidoptera and Biodiversity)) and one male (deposited in the De la Maza family Collection) of this species were known, collected between 1940 and 1970; however, in 2020 this taxon was rediscovered in Tlaltizapán, Morelos, which allowed the populations of Colima and Jalisco to be separated from those of the Balsas River Basin, leading to the description of *Athis miastagma gonzalezi* López-Godínez, García-Díaz & Turrent-Carriles, 2022. Its host plant is an unidentified terrestrial species of *Hechtia* (Bromeliaceae), different from the hosts of *A. m. gonzalezi* (García-Díaz *et al*., in prep.). *Athis miastagma miastagma* is endemic to Mexico and has only been recorded in localities with tropical deciduous forest in the states of Guerrero, Morelos and Oaxaca (García-Díaz *et al*., 2022). The sexual dimorphism of this species is marked, similar to that of *Athis hechtiae*.

Material examined: 1♂, Cat. No. 2452, mayo, ex coll. Roberto Müller.

7. ***Athis miastagma gonzalezi* López-Godínez, García-Díaz & Turrent-Carriles, 2022** (Fig. 2E)
Remarks: This is the most recently described taxon of *Athis*. It is known only from the states of Colima and Jalisco, Mexico, and, like the other two taxa belonging to the "*hechtiae* group," the host plants of *A. m. gonzalezi* are terrestrial *Hechtia* (Bromeliaceae) (González *et al*., 2021; García-Díaz *et al*., 2022). Males and females differ from *A. hechtiae* and *A. m. miastagma* by having a darker base coloration on both wings in both dorsal and ventral view, the diagonal white band of the forewings reaches the anal margin, and both the discal and postdiscal bands of the hindwings are wider (García-Díaz *et al*., 2022). The sexual dimorphism of this species is similar to that of *A. hechtiae* y *A. m. miastagma*.

Material examined: 1♂, Paratype, Colima, La Salada, 11/Jul/2021, *leg.* B. López G.

8. ***Athis thysanete* (Dyar, 1912)** (Fig. 3A)
Remarks: *Athis thysanete* is a castniid endemic to the Tehuacán-Cuicatlán Valley, in the states of Oaxaca and Puebla, Mexico (García-Díaz, 2022b). It was described from material collected by Roberto Müller in Tehuacán, Puebla, near the former El Riego Hacienda (Dyar, 1912; Hoffmann, 1932). For several decades only four specimens were known, deposited in NMNH, MHNCA and the Natural History Museum of London; however, it was rediscovered in 1997 in Tepelmeme Villa de Morelos, Oaxaca by Javier de la Maza (García-Díaz, 2022b). It belongs to the "*inca* group" and, unlike other species, exhibits little sexual dimorphism, with the only differences between males

and females being related to abdomen size roundness of the wings, as well as the evident differences in the frenulo-retinacular configuration. According to observations by García-Díaz (2022b), its host plant is in the genus *Tillandsia* (Bromeliaceae).

Material examined: 1♂, No. 2712, Tehuacán, VI, ex coll. Roberto Müller; 1♂, No. 2713, Tehuacán, VI, ex coll. Roberto Müller.

***Escalantiana* Miller, 2019**

9. ***Escalantiana chelone mendozai* García-Díaz & Turrent-Carriles, 2022** (Fig. 3B)

Remarks: This subspecies exhibits crepuscular habits and a restricted distribution within the Tehuacán-Cuicatlán Valley, in the states of Oaxaca and Puebla, Mexico (García-Díaz & Turrent-Carriles, 2022). It exhibits little sexual dimorphism, but males can be easily distinguished from females by the evident differences in the frenulum-retinaculum, and by the fact that females tend to be larger and have more rounded wings (García-Díaz & Turrent-Carriles, 2022). Its host plant is unknown, but we believe it should belong to the genus *Agave* L. (Asparagaceae), since the larvae of *Escalantiana escalantei* (Miller, 1976) feed on *Agave* species (González *et al*., 2019; García-Díaz & López-Godínez, in prep.).

Material examined: 1♂, Paratype, Puebla, Tehuacán, 30/May/2020, *leg*. J. J. García D.

Figure 3. Males in dorsal (left) and ventral (right) view of **(A)** *Athis thysanete* (ex coll. Roberto Müller), **(B)** *Escalantiana chelone mendozai* (Paratype) and **(C)** *Imara satrapes* (ex coll. Roberto Müller). Scale bar = 1 cm.

Imara Houlbert, 1918

10. ***Imara satrapes* (Kollar, 1839)** (Fig. 3C)

Remarks: *Imara satrapes* is a South American species that has been recorded in Argentina, Brazil, Paraguay, and Uruguay (Biezanko, 1961a, 1961b; Miller, 1986; Lamas, 1995; Penco, 2011; Ríos & González, 2011). According to Biezanko (1961a, 1961b) and Miller (1986), *I. satrapes* is diurnal and its known host plants correspond to species of the Bromeliaceae family. In the MHNCA there is a male specimen from the Müller Collection whose labels indicate that it was collected in Orizaba, Veracruz, Mexico (Fig. 3C), a locality frequented by Roberto Müller to collect Lepidoptera during the first two decades of the 20th century (Hoffmann, 1932). Beutelspacher (1988, 1992) cited it as "*Castnia satrapes*" and Miller (2000) cited it as "*Imaria pallasia*". Furthermore, Miller (2000) noted that this specimen was possibly introduced to Mexico, along with its host plant, through some type of importation at a seaport. Later, González (2008) commented that this specimen probably came into Roberto Müller's possession through an exchange with a collector, stating that "it is unlikely that they are established in Mexico". The possible origin of this specimen is probably more in line with the proposal of González (2008), since there are specimens of other Lepidoptera species deposited in the Müller Collection that are of Central or South American origin and that have never been collected in Mexico by other lepidopterists (*e.g*., *Caligo atreus* (Kollar, 1850)). Based on our review of 36 Mexican and foreign entomological collections, we found no additional specimens of *I. satrapes* originating from Mexico or Central America. Furthermore, it is a general consensus among Mexican lepidopterists that this species has never been collected in Mexico (Roberto de la Maza, com. pers.). Therefore, we conclude that the *I. satrapes* specimen deposited in the MHNCA is most likely of foreign origin and we reject the distribution of this species in Mexico.

Material examined: 1♂, *satrapes* Koll, Orizaba, V, 886, CNIABM 2442, ex coll. Roberto Müller.

Telchin Hübner, [1825]

11. ***Telchin atymnius futilis* (Walker, 1856)** (Figs. 4A, 4B)

Remarks: This is possibly the most common and frequently sighted castniid in Mexico, distributed on the Gulf of Mexico slope from San Luis Potosí to Chiapas (García-Díaz, 2022a). This subspecies has been recorded throughout Central America as far south as Panama (Miller, 1986; Lamas, 1995; González & Hernández-Baz, 2012; van den Berghe *et al*., 2020). It exhibits a considerable level of sexual dimorphism in wing pattern, as females have a larger and more conspicuous subapical spot band on their forewings, and a wider diagonal band than males (Figs. 4A, 4B). García-Díaz (2022a) recorded nine hosts of three different genera (*Heliconia* L., *Canna* L., *Etlingera* Giseke) for *T. a. futilis* in Mexico. In addition, in parts of Central America it is known to be a pest of sugarcane (*Saccharum officinarum*: Poaceae) along with *Telchin atymnius drucei* (Schaus, 1911) (LAICA, 2017; Cadet-Piedra *et al*., 2019; García-Díaz, 2022a; García-Díaz *et al*., 2024).

Material examined: 1♂, Jacatepec, 8-X-78; 1♂, Sierra de Juárez, La Esperanza, 05-V-1977, *leg*. R. de la Maza R.; 2♂♂, Uxpanapa, Chalchijapan, 2-IX-78; 1♂, Huauchinango, Huauchinango, 20-VI-2009, Todaka col.; 1♀, No. 2887, Presidio, ex coll. Roberto Müller; 1♀, No. 2888, Mirador, ex coll. Roberto Müller; 1♂, No. 2701, Mirador, ex coll. Roberto Müller; 1♂, No. 2700, Orizaba, ex coll. Roberto Müller; 1♂, Catemaco, Dos Amates, 30-X-1963, *leg*. R. de la Maza R.; 1♀, Catemaco, Dos Amates, 20-V-1963, E. Martin col.; 1♂, no data, ex coll. Agustín Arroyo; 1♂, 4/V/[19]56, Patla, Puebla, ex coll. Agustín Arroyo; 1♂, 2 Amates, V/26/[19]68, ex coll. Agustín Arroyo.

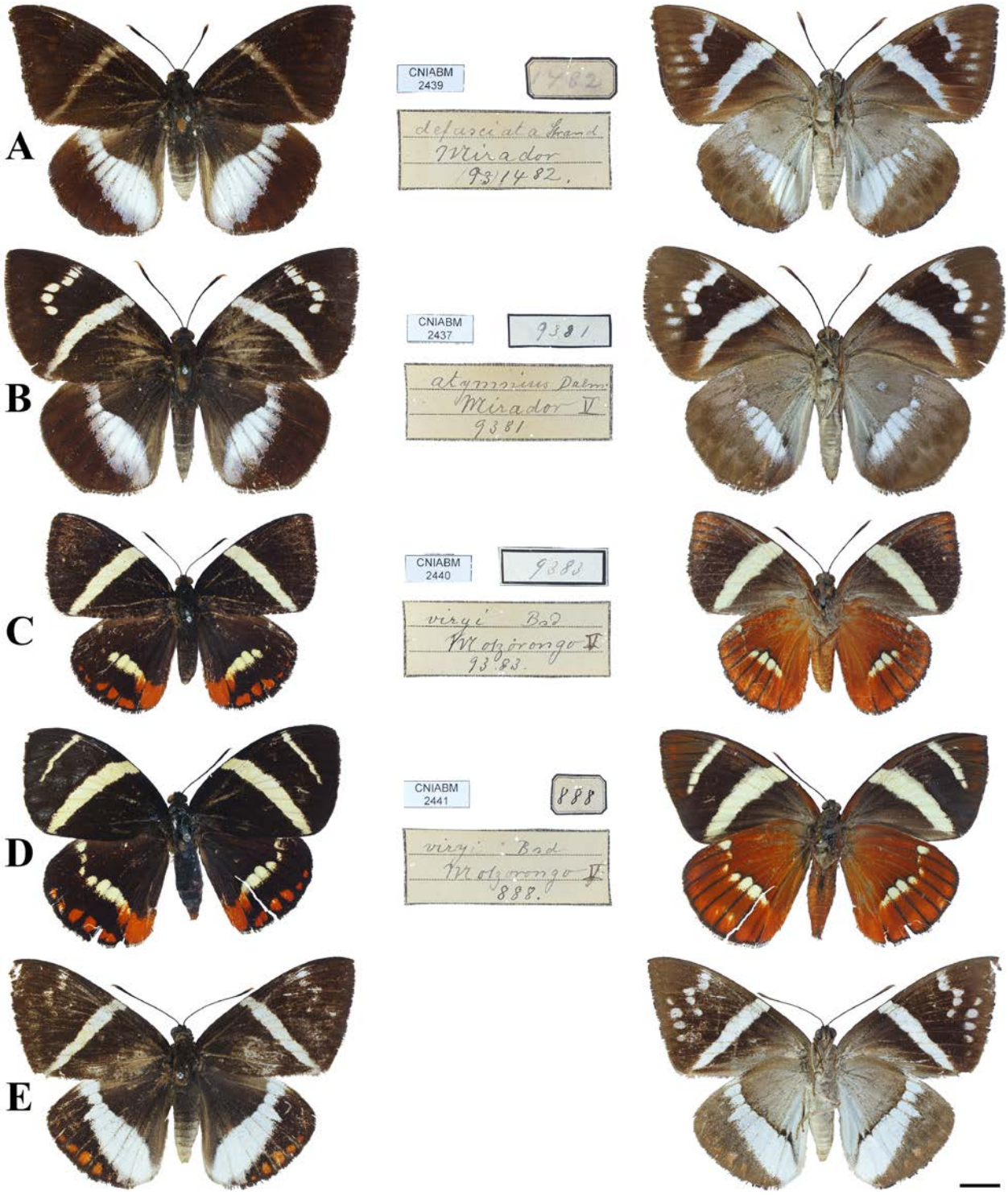

Figure 4. Males **(A, C, E)** and females **(B, D)** in dorsal (left) and ventral (right) view of **(A, B)** *Telchin atymnius futilis* (ex coll. Roberto Müller), **(C, D)** *T. evalthe viryi* (ex coll. Roberto Müller) and **(E)** *T. licus* (no data). Scale bar = 1 cm.

12. ***Telchin evalthe viryi*** **(Boisduval, [1875])** (Figs. 4C, 4D)

Remarks: Subspecies with marked sexual dimorphism, as the females have a pale-yellow diagonal band in the subapical region which is lacking in males (Figs. 4C, 4D). The Transmexican Volcanic Belt appears to be a natural barrier to its distribution, as it has been recorded from central Veracruz,

Mexico (along the Gulf of Mexico slope) to Honduras and possibly Nicaragua in evergreen, semi-evergreen, and montane cloud forests (van den Berghe *et al*., 2020; García-Díaz, 2023). Unfortunately, it is rare in collections and very little is known about its ecology and behaviour, including its host plant.

Material examined: 1♂, No. 2702, Motzorongo, V, ex coll. Roberto Müller; 1♀, No. 2703, Motzorongo, V, ex coll. Roberto Müller; 1♂, El Vigía, 8/8/[19]65, ex coll. Agustín Arroyo.

13. ***Telchin licus* (Drury, 1773)** (Fig. 4E)

Remarks: *Telchin licus* is the best known, most studied and most represented species of Castniidae in entomological collections, since its larvae feed on Heliconiaceae, Musaceae and Poaceae, being a pest of at least the latter two in South America (Ballou, 1914; Lima, 1945; Aya *et al*., 2022; García-Díaz *et al*., 2024). Nevertheless, 11 subspecies are recognised (Lamas, 1995), and the distribution limits of each, as well as the difference in wing patterns, are poorly understood, so a taxonomic revision is required to clarify all these aspects. Unfortunately, the specimen deposited in the MHNCA does not have a label, so we do not know its origin, and this limits our ability to elaborate further on it.

Material examined: 1♂, no data.

DISCUSSION

The representation of the Castniidae collection of the MHNCA proved to be predominantly Mexican (three genera, nine species, and 46 specimens), as all species (except *I. satrapes* and *T. licus*) were found to be native to Mexico.

The material from the Müller Collection is noteworthy, as for a collection that is over a century old, it provides a good representation of Mexican castniids, although it lacks material of the genera *Divana* Miller, 1982 and *Mexicastnia* García-Díaz & Turrent-Carriles, 2022. As in most other Lepidoptera families represented in the Müller Collection, the Castniidae are represented by one or two specimens of each species, with males and females available for about half of them (Figs. 1, 2, 4). Interestingly, only *A. inca orizabensis* and *T. atymnius futilis* (the two most common castniid species in Mexico) are represented by more than two specimens (four of each). *Athis hechtiae*, *A. m. miastagma*, and *A. thysanete* were described from Roberto Müller's material, and are all represented in his collection in the MHNCA (Figs. 2B–2D, 3A). These specimens (together with the types) were the only ones known for several decades, until the second half of the twentieth century.

The Agustín Arroyo Collection, in turn, contributed new Castniidae taxa to the MHNCA, adding *A. flavimaculata* and *A. inca inca* to the list (Figs. 1B, 1C). Regarding the type material of Castniidae at the MHNCA, paratypes of two taxa were found (*A. miastagma gonzalezi* and *E. chelone mendozai*) (Figs. 2E, 3B). This makes the MHNCA, after the CNIN, the Mexican institution housing the largest number of Castniidae types.

ACKNOWLEDGMENTS. The first author (JJGD) (CVU 1297503) thanks Secretaría de Ciencia, Humanidades, Tecnología e Innovación (SECIHTI) and the Postgraduate Program of Instituto de Ecología A. C. (INECOL) for the scholarship to pursue a Doctorate in Sciences. We thank Bob Worthy for his comments and revision of the manuscript.

Thanks to the following individuals for providing access to collections under their care: Omar Villarreal (CFV); Dirk Casteleyn (DC); Bob Worthy (RW); Daniel J. Curoe (DJCC); Javier † and Roberto de la Maza (CDM); Francisco and Luis Haghenbeck (CFH); Alonso and Rafael Turrent (CFT); Andrew D. Warren (ADW); Cristina Mayorga, Ivonne Garzón, Alejandro Zaldívar and Adolfo Ibarra (CNIN); Martha Madora-Astudillo (CNIN-IBUNAMEBTLT); Noemí Salas-Suárez, Carmen Pozo and Humberto Bahena-Basave (ECO-CH-LN); Blanca Huertas, Alessandro Giusti and Geoff Martin (NHMUK); Lawrence Gall (YPM); Carlos Joaquín Morales (UNACH); Julián A. Salazar-Escobar (CJASE) (C-ICNMHN); Suzanne Rab Green and David Grimaldi (AMNH); Viola Richter and Théo Lédger (MfN); Richard Hoebeke, Emily Jernigan and Jason Dombroskie (CUIC); Bernardo A. Espinoza-Sanabria (BioAlfa-GDFCF) and Germán Vega (MNCR); Karen Wright and Edward Riley (TAMU); Gerardo Lamas (MUSM); Peter T. Oboyski (EMEC); James Hogan (OUMNH); Cecil Smith and Richard Hoebeke (UGCA); Chris Grinter and Robert Zuparko(CAS); Jim Young and Paul Goldstein (NMNH); Deborah Matthews and Riley Gott (MGCL); José Monzón-Sierra and Jiichiro Yoshimoto (UVGC); Rodolphe Rougerie and Jérôme Barbut (MNHN); Stefan Kerkhof (RBINS); Mark Simon (MS); Michael Büche (MB); Christophe Faynel (CF); Pierre Boyer (PB).

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