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New data on Gracillariidae from the Canary Islands, Spain. Part 1. Gracillariinae, Oecophyllembiinae (Insecta: Lepidoptera)

Per Falck

Abstract

Two new species are described from the Canary Islands, Spain, *Caloptilia coriarella* Falck sp. nov. from La Palma and Madeira, Portugal and *Metriochroa carreteriaella* Falck sp. nov. from Gran Canaria. *Aspilapteryx anagensis* Klimesch, 1979, reinst. stat. is removed from synonymy of *Aspilapteryx multipunctella* (Chrétien, 1917) and reinstated as a distinct species. *Aspilapteryx multipunctella* (Chrétien, 1917) and *Dextellia dorsilineella* (Amsel, 1935) are recorded as new to the Canary Islands. *Caloptilia perseae* (Busck, 1920) is removed from the list of Canary Islands Lepidoptera due to misidentification, *Dialectica imperialella* (Zeller, 1847) and *Leucospilapteryx omissella* (Stainton, 1848) are removed from the same list because of the unconfirmed and probably erroneous records. Photographs of the adults of the new species are provided. Photographs of the genitalia of the discussed species are provided, or references are given to literature where they are figured. All the new species are barcoded.
Keywords: Insecta, Lepidoptera, Gracillariidae, Gracillariinae, Oecophyllembiinae, new species, new records, Canary Islands, Spain.

Nuevos datos sobre Gracillariidae de las Islas Canarias, España. Parte 1. Gracillariinae, Oecophyllembiinae (Insecta: Lepidoptera)

Resumen

Se describen dos nuevas especies de las Islas Canarias, España, *Caloptilia coriarella* Falck sp. nov. de La Palma y Madeira, Portugal, y *Metriochroa carreteriaella* Falck sp. nov. de Gran Canaria. *Aspilapteryx anagensis* Klimesch, 1979, reinst. stat. se retira de la sinonimia de *Aspilapteryx multipunctella* (Chrétien, 1917) y se reinstala como especie distinta. *Aspilapteryx multipunctella* (Chrétien, 1917) y *Dextellia dorsilineella* (Amsel, 1935) se registran como nuevas para las Islas Canarias. *Caloptilia perseae* (Busck, 1920) se elimina de la lista de los Lepidoptera canarios debido a una identificación errónea, *Dialectica imperialella* (Zeller, 1847) y *Leucospilapteryx omissella* (Stainton, 1848) se eliminan de la misma lista debido a los registros no confirmados y probablemente erróneos. Se muestran fotografías de los adultos de las nuevas especies. Se proporcionan fotografías de la genitalia de las especies tratadas se dan referencias a la literatura donde están figuradas. Todas las nuevas especies tienen código de barras.
Palabras clave: Insecta, Lepidoptera, Gracillariidae, Gracillariinae, Oecophyllembiinae, nuevas especies, nuevos registros, Islas Canarias, España.

Introduction

The subfamilies Gracillariinae Stainton, 1854 and Oecophyllembiinae Balachowsky, 1996, comprises more than 40 genera worldwide (De Prins & De Prins, 2005). In the latest catalogue of Lepidoptera from the Canary Islands, Spain (Vives Moreno, 2014) four genera (*Caloptilia* Hübner, [1825], *Aspilapteryx* Spuler,

1910, *Dialectia* Walsingham, 1897, and *Leucospilapteryx* Spuler, 1910) are recognized with a total of nine species. Since then, only *C. perseae* (Busck, 1920) is recorded as new to the Canary Islands (Gaston et al. 2018). Fieldwork during the last decade on the Canary Islands has revealed new data on these subfamilies which are presented below. Two species are described as new. *Caloptilia coriarella* Falck, sp. nov. is described from La Palma and Madeira, Portugal, and it is compared with *C. laurifoliae* (M. Hering, 1927) and two North American species *C. sassafrasella* (Chambers, 1876) and *C. perseae* (Busck, 1920). The genitalia of all four species and of both sexes are figured. *Metriochroa carreteriaella* Falck, sp. nov. is described from Gran Canaria. Its genitalia are figured and compared with other named species of the genus. *Aspilapteryx anagensis* Klimesch, 1979 is reinstated as a distinct species. *Aspilapteryx multipunctella* (Chrétien, 1917) and *Dextellia dorsilineella* (Amsel, 1935) are recorded as new to the Canary Islands. Three species are removed from the list of Canary Islands Lepidoptera. *Caloptilia perseae* (Busck, 1920) due to misidentification, *Dialectica imperialella* (Zeller, 1847) and *Leucospilapteryx omissella* (Stainton, 1848) because of unconfirmed records.

Abbreviations used

PF Collection of Per Falck, Neksø, Denmark
MNCN Collection of Antonio Vives, Museo Nacional de Ciencias Naturales, Madrid, Spain
ZMUC Zoological Museum, Natural History Museum of Denmark, Copenhagen, Denmark

Material and methods

Most of the specimens were collected by the author and attracted to an 8-watt super actinic light, and some were collected as larvae.

Male and female genitalia were dissected and prepared following Robinson (1976).

Adults from the Canary Islands were photographed with a Canon EOS 700D camera equipped with a Canon EF 100 mm objective. The genitalia slide from specimens from the Canary Islands were photographed using a Soptop CX40T Trinocular microscope in conjunction with a Toup Tek P10500AE3 / E3ISPM05000KPA-E3 / 5.0MP USB3 camera.

The author examined the morphology of all species from the Canary Islands and the DNA barcodes from new and cryptic species. DNA samples were prepared as described by Falck & Karsholt (2023: 271). Details of successfully sequenced voucher specimens are publicly available through the dataset DS-GRACAIS at www.boldsystems.org. and at dx.doi.org/10.5883/DS-GRACAIS.

Plant names are according to World Flora Online (2024).

Checklist

Synonyms used in the literature on Gracillariidae of the Canary Islands are included.

Gracillariidae Stainton, 1854
Gracillariinae Stainton, 1854

Caloptilia aurantiaca (Wollaston, 1858)
Caloptilia coruscans (Walsingham, 1907)
= *schinella* Walsingham, 1908
Caloptilia laurifoliae (M. Hering, 1927)
= *roscipennella* sensu Walsingham, 1894
= *laurifoliella* (Rebel, 1939)
***Caloptilia coriarella* Falck, sp. nov.**
Caloptilia staintoni (Wollaston, 1858)
Aspilapteryx multipunctella (Chrétien, 1917)
Aspilapteryx anagensis Klimesch, 1979, **stat. reinst.**
Dialectica hedemanni (Rebel, 1896)
Dialectica scalariella (Zeller, 1850)

Dextellia dorsilineella (Amsel, 1935)

Oecophyllembiinae Balachowsky, 1996

***Metriochroa carreteriaella*, Falck sp. nov.**

Results

Gracillariinae

***Caloptilia coriarella* Falck, sp. nov.** (Figures 1, 2, 10, 10a, 10b, 10c, 17)
https://zoobank.org/90CCDA05-D376-48E9-A430-DD09142F3FCD

Holotype ♂: SPAIN, La Palma, Barranco de la Madera, 500 m, larva on *Rhus coriaria* L., 10-30-XI-2023, leg. P. Falck. Deposited in the MNCN.

Paratypes: SPAIN, La Palma, Barranco de la Madera, 500 m, 2 ♂, 29-VII-11-VIII-2023. leg. P. Falck, DNA samples Lepid Phyl 1356PF/CILEP1355-23, 1357PF/CILEP1356-23, same data but 6 ♂, 5 ♀, larvae on *Rhus coriaria* L., 10-30-XI-2023, leg. P. Falck, genitalia slide 4031PF, 4032PF. Portugal, São Jorge, 200 m, 1 ♂, 1 ♀, larvae on *Rhus coriaria* L., 29-XI-2001, leg. O. Karsholt, genitalia slide ZM4308PF (ZMUC).

Diagnosis: *C. coriarella* resembles *C. laurifoliae* (M. Hering, 1927) and especially the two North American species *C. sassafrasella* (Chambers, 1876) and *C. perseae* (Busck, 1920).

It differs from *C. laurifoliae* by the smaller wingspan (10-12.5 mm), the almost pure white labial palp, the white face and the white tarsus of fore- and midlegs. In *C. laurifoliae* the wingspan is 15-17 mm, the labial palp and face are reddish-brown, and tarsus is cream-white and brown. It was not possible to separate *C. coriarella* externally from *C. sassafrasella* and *C. perseae* based on the available material.

In the male genitalia it is characterized by the curved ventral margin of valva to cucullus without a clear distal margin, the pointed apex of phallus and a longitudinal row of 17-18 relatively robust cornuti. In the female genitalia it is characterized by the sclerotized, corrugate lamella ante-vaginalis, the relatively short bursa copulatrix, with almost undifferentiated ductus and corpus bursae, the relatively short, broad and membranous ductus bursae and the large, slightly curved signa.

Description (Figures 1, 2): Wingspan 10-12.5 mm. Labial palp slender, upturned, segment 2 white, segment 3 white, apically blackish brown. Maxillary palp white. Antenna pale grey, darker grey from 2/5 to apex. Head with vertex light reddish brown, face pure white. Tegula and thorax light reddish brown. Forewing reddish brown with slight violet gloss; from ¼ a cream-white, diffuse patch from costa to cell, narrowing apically and reaching costa at ½; margin of costa and dorsum with several small, brownish-grey dots. Fringe dark grey with indistinct, white fringe line, paler around tornus. Hindwing grey, with grey fringe. Abdomen reddish grey. Fore- and midlegs dark brown with tarsus white; hindlegs whitish buff.

Variation: Only minor variation in the forewing colour is observed.

Male genitalia (Figures 10, 10a, 10b, 10c): Tuba analis membranous, slightly narrower than distal part of tegumen, protruded over the top of tegumen; subscaphium slender, basally T-shaped; tegumen oblong, lateral margins convex, antero-medial margin with deep emargination; valva curved, gradually widening to the middle, then narrowing towards rounded cucullus, distal half covered with dense long setae; vinculum subtriangular, apically rounded; phallus straight, subapically rounded with thorn-shaped, acute apex; a longitudinal row of 17-18, relatively robust cornuti, which may be bent if the vesica is everted (Figure 10b). Sternum VIII subrectangular, coremata relatively short. Sternum VII narrow with median projection, coremata long (Figure 10c).

Female genitalia (Figure 17): Papillae anales membranous, short, covered with short setae; posterior apophysis short, slightly longer than anterior apophysis; segment VIII subrectangular; lamella post-vaginalis narrow, subrectangular, anterior margin convex; lamella ante-vaginalis heavily sclerotized, subrectangular, posterior margin with rounded emargination, laterally and anteriorly corrugated; ostium funnel-shaped; bursa copulatrix relatively short, with almost undifferentiated ductus and corpus bursae; ductus bursae membranous, relatively short and broad; corpus bursae small and rounded; signa large, claw-shaped, weakly curved.

DNA barcodes: We obtained full length DNA barcode (658 bp) from two specimens. The barcodes fall within Barcode Index Number (BIN) BOLD: AAD4936. The maximum intraspecific p-distance within BIN

is 1.61% (n=25). The minimum p-distance to nearest neighbour (*C. diversilobiella* Opler, 1969) is 4.22 %. *C. coriarella* shares BIN with *C. sassafrasella* (Chambers, 1876).

Biology: Two specimens were collected at light in a steep ravine and later, at the same location, larvae were found mining the leaves or inside cones on *Rhus coriaria* L. (Anacardiaceae). The vegetation is a mixture of open dry *Pinus* forest and open Laurisilva forest. *Rhus coriaria* is native to the Canary Islands, Madeira, the Azores, northwest Africa, southern Europe and southwest Asia (World Flora Online, 2024).

Distribution: Known only from Barranco de la Madera and Barranco de Juan Mayor (empty cones) in the western part of the island La Palma, Spain and São Jorge in the northern part of Madeira, Portugal.

Etymology: The species is named after its hostplant *Rhus coriaria* L.

Remarks: In 2018 *C. perseae* was recorded from the Canary Islands, La Palma by Gaston et al. (2018). An attempt was made to find the larva in cones of *Persea americana* Mill., however, only *C. staintoni* (Wollaston, 1858) hatched. A few days later two specimens were attracted to light and provisionally identified as *C. perseae.* Both specimens were barcoded and surprisingly they shared BIN with the North American species *C. sassafrasella.* At a later visit to the same location larvae were found in cones of *Rhus coriaria* L. (Anacardiaceae) and hatched about one month later. During the present study it became apparent that the specimens belonged to an undescribed species, but also that *C. perseae* was incorrectly recorded from the Canary Islands due to a misidentified specimen of *C. laurifoliae.* The morphologically differences in the genitalia and the different family of host plant supports the status of *C. coriarella* as a distinct species. The known host plants for *C. perseae*, *C. sassafrasella* and *C. laurifoliae* all belongs to the family Lauraceae.

For comparison the genitalia of both sexes of *C. perseae*, *C. sassafrasella* and *C. laurifoliae* are figured.

C. coriarella also resembles the North American *rhus*-feeding species *C. ovatiella* Opler, 1969, *C. diversilobiella* Opler, 1969 and *C. rhoifoliella* (Chambers, 1876). It differs from them by differences in the genitalia morphology and the DNA barcode. The adult and the genitalia are figured by Opler (1969).

The holotype of *C. coruscans* (Walsingham, 1907) is reared from *Rhus dioica* Brouss. ex Willd. which is a synonym of *Searsia tripartita* (Ucria) Moffett (World Flora Online, 2024). It differs distincly both in adult and genitalia morphology.

Caloptilia perseae (Busck, 1920)
Gracillaria perseae Busck, 1920. *Can. Ent., 52*, 239

C. perseae (Busck, 1920) should be deleted from the list of Lepidoptera found in the Canary Islands (see remarks under *C. coriarella*).

Aspilapteryx multipunctella (Chrétien, 1917) (Figures 5, 14, 14a, 14b)
Gracilaria tringipennella multipunctella Chrétien, 1916. *Ann. Soc. ent. France, 85*(3-4), 497

Material examined: SPAIN, Fuerteventura, Caldereta, 220 m, 2 ♂, 30-V-12VI-2023, leg. P. Falck, genitalia slide 4087PF, 4089PF, DNA samples Lepid Phyl 1352PF/CILEP1351-23, 1353PF/CILEP1352-23 (PF). **New to the Canary Islands, Spain.**

Diagnosis: See under next species.

Genitalia (Figures 14, 14a, 14b): The female genitalia is figured by Triberti (1985, pls IV).

DNA barcode: We obtained full length DNA barcode (658 bp) from two specimens. The barcodes fall within Barcode Index Number (BIN) BOLD: AAV4380. The maximum intraspecific p-distance within BIN is 0.64% (n=5). The minimum p-distance to nearest neighbor (*A. anagensis* Klimesch, 1979) is 3.77 %.

Biology: The larva is bred from *Plantago albicans* L. (Triberti, 1985).

Distribution: Algeria, Tunisia (Chrétien, 1917), Spain (Triberti, 1985), Portugal (Corley et al. 2000) and France (Nel, 2003).

Remarks: Previous records of *C. multipunctella* from the Canary Islands all belongs to *C. anagensis*.

Aspilapteryx anagensis Klimesch, 1979, **stat. reinst.** (Figures 6, 15, 15a, 15b)
Aspilapteryx anagensis Klimesch, 1979, *Vieraea, 8*, 153-155, pl. 14-17.

Material examined: SPAIN, Tenerife, Las Mercedes, 750 m, 4 ♂, 21-V-3-VI-2019, leg. P. Falck, genitalia slide 4088PF, DNA samples Lepid Phyl 0784PF/CILEP783-21, 0785PF/CILEP784-21, 0786PF/CILEP785-21, same data but 1 ♂, 1-13-VI-2022 leg. P. Falck, genitalia slide 4086PF, same data but 1 ♀, 30-III-5-IV-2024, leg. P. Falck (PF).

Diagnosis: In the male genitalia *A. anagensis* is characterized by a row of 5-7 small cornuti and by the divided distal part of phallus of which apex is sub-triangular, apically with 3-4 small spines and beneath it a relatively broad twisted projection. It resembles *A. multipunctella*, which has 7-10 larger cornuti, apex of phallus is thorn-shaped and the twisted projection is much narrower and longer.

Genitalia (Figures 15, 15a, 15b): The female genitalia are figured by Klimesch (1979, figs 16-17).

DNA barcode: We obtained DNA barcode fragments of 657bp, 577bp and 321bp from three specimens. The barcodes fall within Barcode Index Number (BIN) BOLD: AEI7891. The maximum intraspecific p-distance is 0.18 %. The minimum p-distance to nearest neighbour (*A. multipunctella*) is 3.77 %.

Biology: Klimesch (1979, p. 154) bred *A. multipunctella* only from *Plantago arborescens* L. and describes the larva as a temporary miner, completing its larval development feeding among spun leaves.

Distribution: Known only from Tenerife. Endemic to the Canary Islands, Spain.

Remarks: *A. anagensis* was described in detail by Klimesch (1979, pp. 153-155). It was synonymized with *A. multipunctella* by Triberti (1985, p. 4) due to the rather similar genitalia. However, Triberti was aware that there were small differences in the male genitalia between the two species "Klimesch (1979) pointed out five cornuti in *anagensis* whereas I noticed 8-10 in Mediterranean specimens". The divergence in the DNA barcodes, the clear morphologically differences in the phallus and the different host plant supports the status of *A. anagensis* as a distinct species.

Dialectica imperialella (Zeller, 1847)
Euspilopteryx imperialella Zeller, 1847. *Linn. Ent., 2*, 365

D. imperialella is recorded from the Canary Islands by Kuznetzov & Baryshnikova (1998, p. 20) and later by (De Prins & De Prins, 2005, p. 173). It has not been possible to trace a specific record from the Canary Islands neither by J. De Prins (in litt.) nor the author, and the record is probably due to an error. *D. imperialella* (Zeller, 1847) should be deleted from the list of Lepidoptera found in the Canary Islands.

Dextellia dorsilineella (Amsel, 1935) (Figure 7)
Leucospilapteryx dorsilineella Amsel, 1935. *Mitt. Zool. Mus. Berl., 20*, 307-308, pl. 12

Material examined: SPAIN, Gran Canaria, El Sao, 110 m, 1 ♂, 1 ♀, 17-30-IX-2018, leg. P. Falck, DNA sample Lepid Phyl 0006PF/CILEP6-19; same data but 1 ♂, 4-23-III-2019, leg. P. Falck; Puntilla de la Caleta, 10 m, 1 ♂, 4-23-III-2019, leg. P. Falck; Pie de la Cuesta, 500 m, 3 ♂, 1 &, 21-VIII-4-IX-2020, leg. P. Falck; Barranco Moya, 80 m, 1 ♀, 8-20-VIII-2020, leg. P. Falck. La Gomera, Valle Gran Rey, 150 m, 1 ♂, 24-X-12-XI-2021, leg. P. Falck (PF). **New to the Canary Islands, Spain.**

DNA barcodes: One specimen was successfully barcoded with Barcode Index Number (BIN): BOLD ADD7653. The minimum p-distance to nearest neighbour, an unnamed Gracillariidae species from Thailand, is 7.7 %.

Distribution: *D. dorsilineella* is known from North Africa (Morocco, Tunisia), South Europe (Spain, France, Italy, Malta, Cyprus, Greece), Israel, Turkmenistan and China (De Prins & De Prins, 2024; Pathpiva, 2024).

Biology: The early stages are undescribed.

Remarks: The genitalia of both sexes are figured by (Pathpiva, 2024).

Leucospilapteryx omissella (Stainton, 1848)
Argyromiges omissella Stainton, 1848. *Zoologist, 6*, 2163

L. omissella is recorded from the Canary Islands in De Prins & De Prins (2005, p. 196). It has not been possible to trace a specific record from the Canary Islands neither by J. De Prins (in litt.) nor the author, and the record is probably due to an error. *L. omissella* (Stainton, 1848) should be deleted from the list of Lepidoptera found in the Canary Islands.

Oecophyllembiinae

***Metriochroa carreteriaella*, Falck sp. nov.** (Figures 8, 9, 16, 21)
https://zoobank.org/AA9DE1E1-1FFF-4429-BCEF-6B0D55602925

Holotype ♂: SPAIN, Gran Canaria, Carreteria, 455 m, 9-22-VI-2021, leg. P. Falck, genitalia slide 4090PF, DNA sample Lepid Phyl 0859PF/CILEP857-21. Deposited in the MNCN.

Paratype: SPAIN, Gran Canaria, Carreteria, 455 m, 1 ♀, 1-13-IV-2022, leg. P. Falck, genitalia slide 4091PF (PF).

Diagnosis: *M. carreteriaella* resembles several of the brownish *Metriochroa*-species e.g. *M. latipennella* (Millière, 1887), *M. fraxinella* Kumata, 1998, *M. pergularia* Vári, 1961 and *M. symplocosella* Kobayashi, Huang & Hirowatari, 2013. It is distinguished by the wing-pattern of the forewing which has a yellowish white dorsum, an indistinct, black fascia and three whitish spots at costa in outer half. In the male genitalia the pointed cucullus, the long saccus and the phallus with pointed apex, a large projection dorsally and without cornuti are characteristic. In the female genitalia the relatively broad, ring-shaped antrum and the corpus bursae without signum are characteristic.

Description (Figures 8, 9): Wingspan 6 mm. Labial palp slender, segment two yellowish white, dorsally mottled dark grey, segment three yellowish, medially ringed dark grey. Antenna almost as long as forewing, fuscous. Head yellowish white mottled with greyish brown. Neck yellowish white. Tegula and thorax greyish brown mottled with few yellowish white scales. Forewing dark greyish brown, yellowish white along dorsum from near base to tornus; at ½ an outwardly angled, diffuse blackish fascia, distally edged white; in distal ½ at costa three indistinct, yellowish white spots, above tornus two indistinct, whitish spots. Fringe dark grey. Hindwing grey, fringe lighter grey.

Male genitalia (Figure 16): Tegumen sub-triangular, laterally slightly curved; tuba analis bilobed, moderately setose; valva as long as tegumen, dorsal margin almost straight, costal margin slightly upcurved, in distal ½ with partite scales, cucullus pointed; vinculum y-shaped; saccus almost as long as valva, slightly tapering towards rounded apex; phallus large, about three times longer than valva, apex pointed, dorsally with a long projection reaching to near apex.

Female genitalia (Figure 21): Papillae anales long, tapering distally, covered with long setae; posterior apophysis slightly shorter than anterior apophysis; antrum relatively broad, sclerotized, ring-shaped; ductus bursae membranous; corpus bursae elongate, membranous, without signum.

DNA barcodes: We obtained full length DNA barcode (658 bp) from one specimen. The barcode fall within Barcode Index Number (BIN): BOLD AEN8024. The minimum p-distance to nearest neighbour, *Metriochroa latifoliella* (Millière, 1886), is 7.06 %.

Biology: Early stages unknown. The specimens were attracted to light just above a steep ravine.

Distribution: Known only from the type locality in the northern part of the island Gran Canaria, Spain. It is probably endemic to the Canary Islands.

Etymology: The species is named after its type locality, Carreteria.

Remarks: The genus *Metriochroa* is rather small, with 13 currently named species (Bai et al. 2016). There are three in the Palearctic region, two in the Oriental region, seven in the Afrotropical region and one in the Nearctic region. Only *Metriochroa latifoliella* (Millière, 1886) is known from Europe. Their larvae are leaf-miners. The mine is placed under the upper cuticle of leaves (Oleaceae and Symplocaceae) and the pupation takes place inside the mine (Kumata, 1998; Kobayashi et al. 2013).

Discussion

Despite the lack of barcode dissimilarities and differences in external appearance from *C. sassafrasella* the clear differences in genitalia structure and biology support the description of *C. coriarella* as a new species, see Kaila (2024, p. 381).

Checklists and catalogues are important tools for both field work and taxonomic studies, but during the work with an extensive amount of data there is of course a risk that errors will occur. Species may be incorrectly recorded or omitted from a given area, species previously listed in the literature are not always critically evaluated or they are incorrectly identified or labelled. During the preparation of the present paper the author became aware of three species (*Caloptilia perseae* (Busck, 1920), *Dialectica imperialella* (Zeller, 1847) and *Leucospilapteryx omissella* (Stainton, 1848)) recorded from the Canary Islands, which - due to different mistakes - do not belong to the fauna. It is much easier to add a new species, than it is to remove one from checklists or catalogues. The present author pleads that reference should be made to at least one specific record and preferably with a photo of the adult or its genitalia, when recording a new species to such lists.

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Conflict of Interest

The author declares that there are no known financial interest or personal relationships that could have influenced the work presented in this article.

References

Bai, H., Xu, J., & Dai, X. (2013). Two new and one newly recorded species of Gracillariidae from China (Lepidoptera). *ZooKeys, 559,* 139-150. https://doi.org/10.3897/zookeys.559.6812 PMid:27006609 PMCid:PMC4768276

Chrétien, P. (1917). Contribution à la connaissance des lépidoptères du nord de l'Afrique. Notes biologiques et critiques. *Annales de la Société entomologique de France, 85*(3-4), 369-502.

Corley, M. F. V., Gardiner, A. J., Cleere, N., & Wallis, P. D. (2000). Further additions to the Lepidoptera of Algarve, Portugal (Insecta: Lepidoptera). *SHILAP Revista de lepidopterología, 28* (111), 245-319. http://www.redalyc.org/articulo.oa?id=45513113

De Prins, J., & De Prins, W. (2005). Gracillariidae (Lepidoptera). In B. Landry (Ed). *World Cataloque of Insects* (Vol. 6). Apollo Books.

De Prins, J., & De Prins, W. (2011-2024). *Global taxonomic database of Gracillariidae (Lepidoptera)*. Available from http://www.gracillariidae.net (accessed 27th June 2024).

Falck, P., & Karsholt, O. (2023). The Symmocinae and Holcopogoninae in the Canary Islands and Madeira, with descriptions of 13 new species (Lepidoptera: Autostichidae). *SHILAP Revista de lepidopterología, 51*(202), 269-314. https://doi.org/10.57065/shilap.462

Gastón, J., Revilla, Tx., & Vives Moreno, A. (2018). Contribución al conocimiento de los Microlepidoptera, con nuevas citas para España y otras aportaciones de interés (Insecta: Lepidoptera). *SHILAP Revista de lepidopterología, 46*(182), 221-233. https://doi.org/10.57065/shilap.815

Kaila, L. (2024). A review of Coelopoetinae (Lepidoptera, Gelechioidea, Pterolonchidae), a moth subfamily confined to western North America, with description of seven new species. *Zootaxa,* 5458 (3), 361-384. https://doi.org/10.11646/zootaxa.5458.3.3

Klimesch, J. (1979). Beiträge zur Kenntnis der Microlepidopteren-Fauna des Kanarischen Archipels. 2. Beiträg. Bucculatricidae, Gracillariidae, Phyllocnistidae, Lyonetiidae. *Vieraea, 8*, 147-186.

Kobayashi, S., Huang, GH., Nakamura, A., & Hirowatari, T. (2013). Four new species of Gracillariidae (Lepidoptera) from China and Japan, and description of the pupal morphology of the genera *Corythoxestis*, *Eumetriochroa*, *Guttigera* and *Metriochroa*. *Zootaxa, 3619*(2), 101-129. http://dx.doi.org/10.11646/zootaxa.3619.2.1 PMid:26131468

Kumata, T. (1998). Japanese species of the subfamily Oecophyllembiinae Réal et Balachowsky (Lepidoptera: Gracillariidae), with descriptions of a new genus and eight species. *Insecta matsumurana, 54*, 77-131. http://hdl.handle.net/2115/9886

Kuznetsov, V. I., & Baryshnikova, S. V. (1998). Brief catalog of the mining moths of the fam. Gracillariidae (Lepidoptera) of Russia and adjacent countries. *Trudy Zoologičeskogo Instituta Rossijskoj Akademii Nauk: Zoologičeskij Institut, 274,* 1-160.

Nel, J. (2003). Microlépidoptères nouveaux ou rarement signalés de la faune de France (Lepidoptera). *Bulletin de la Société entomologique de France, 108*(1), 81-86. https://doi.org/10.3406/bsef.2003.29268

Opler, P. A. (1969). Two Species of *Caloptilia* Associated with *Rhus* in California (Lepidoptera: Gracilariidae). *The Pan-Pacific Entomolgist*, *45*, 259-266.

Pathpiva (2024). *Site de Lépidoptères de France Méridionale et de Corse*. Available from http://www.pathpipa.net.

Robinson, G. S. (1976). The preparation of slides of Lepidoptera genitalia with special reference to the Microlepidoptera. *Entomologist's Gazette, 27*, 127-132.

Triberti, P. (1985). A revision of the genus *Aspilapteryx* Spuler (Lepidoptera, Gracillariidae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen, 37*, 1-16.

Vives Moreno, A. (2014). *Catálogo sistemático y sinonímico de los Lepidoptera de la Península Ibérica, de Ceuta, de Melilla y de las Islas Azores, Baleares, Canarias, Madeira y Salvajes (Insecta: Lepidoptera)*. Improitalia.

World Flora Online (2024). https://www.worldfloraonline.org/ (accessed 10th July 2024).

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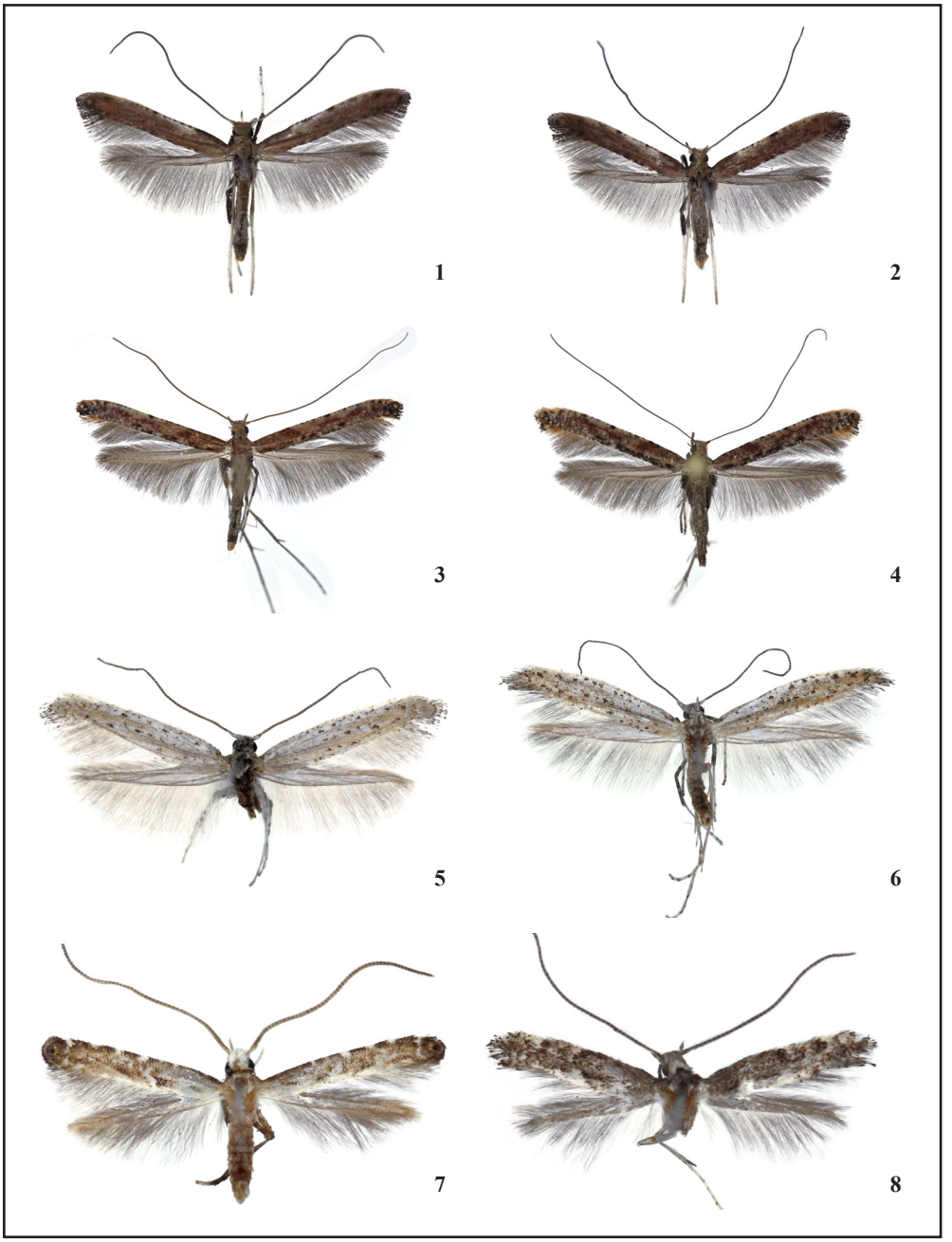
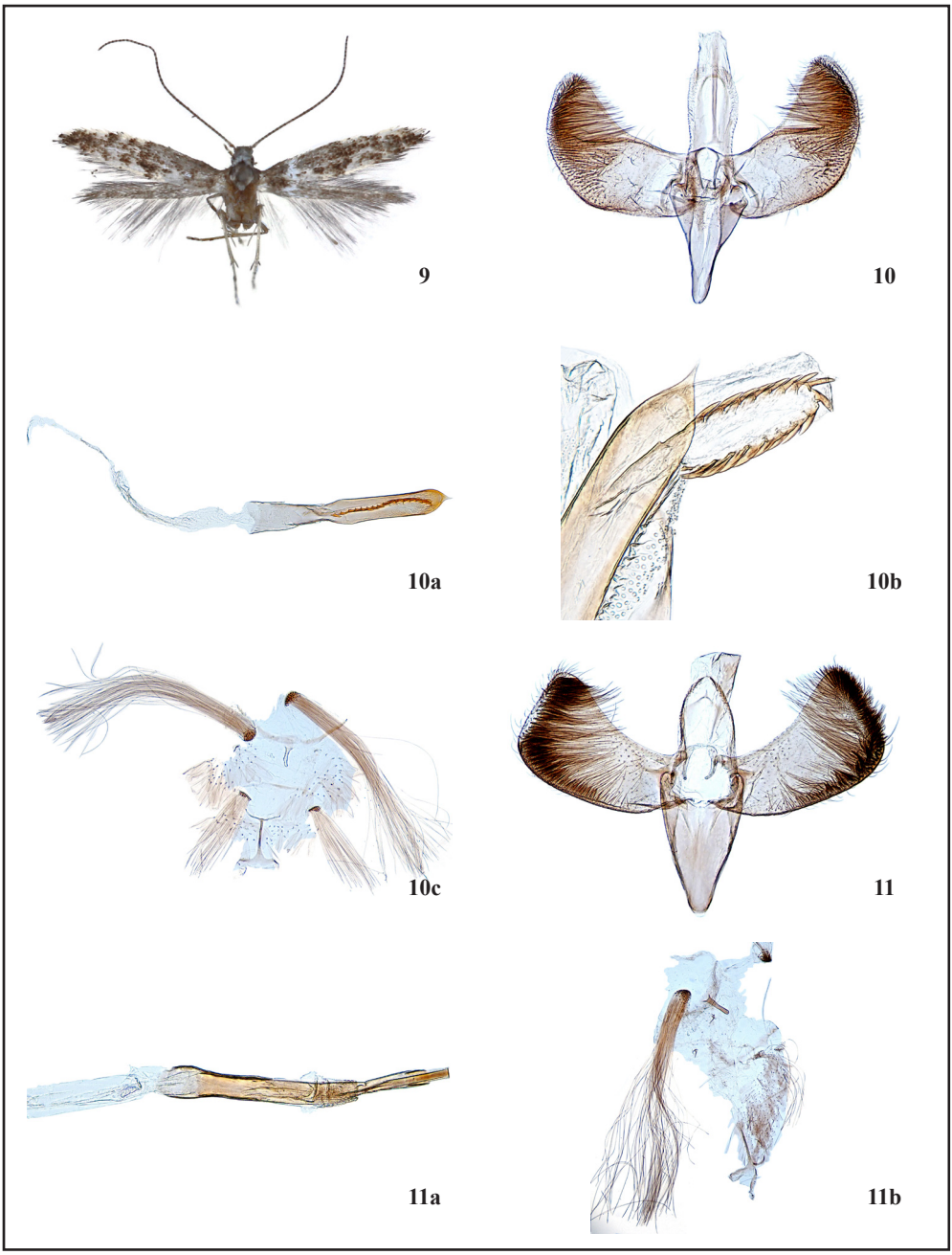
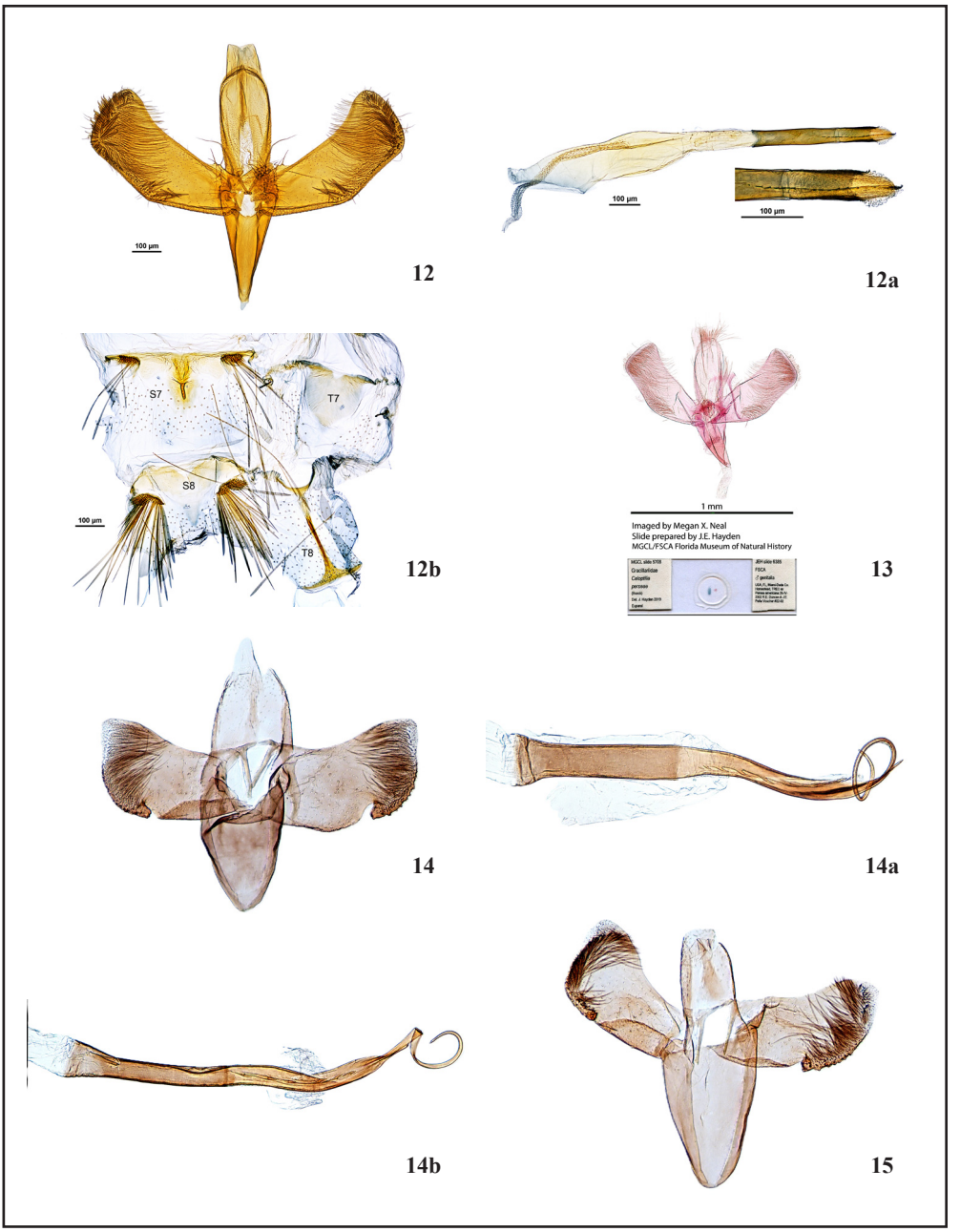
Figures 1-8. 1. *Caloptilia coriarella* Falck, sp. nov., ♂, La Palma, 11.5 mm. **2.** *Caloptilia coriarella* Falck, sp. nov., ♀, La Palma, 11 mm. **3.** *Caloptilia laurifoliae* (M. Hering, 1927), ♂, Tenerife, 16 mm. **4.** *Caloptilia laurifoliae* (M. Hering, 1927), ♀, Tenerife, 15.5 mm. **5.** *Aspilapteryx multipunctella* (Chrétien, 1917), ♂, Fuerteventura, 9.5 mm. **6.** *Aspilapteryx anagensis* (Klimesch, 1979), ♂, Tenerife, 9.5 mm. **7.** *Dextellia dorsilineella* /Amsel, 1935), ♂, Gran Canaria, 8 mm. **8.** *Metriochroa carreteriaella* Falck, sp. nov., ♂, Gran Canaria, 6 mm.



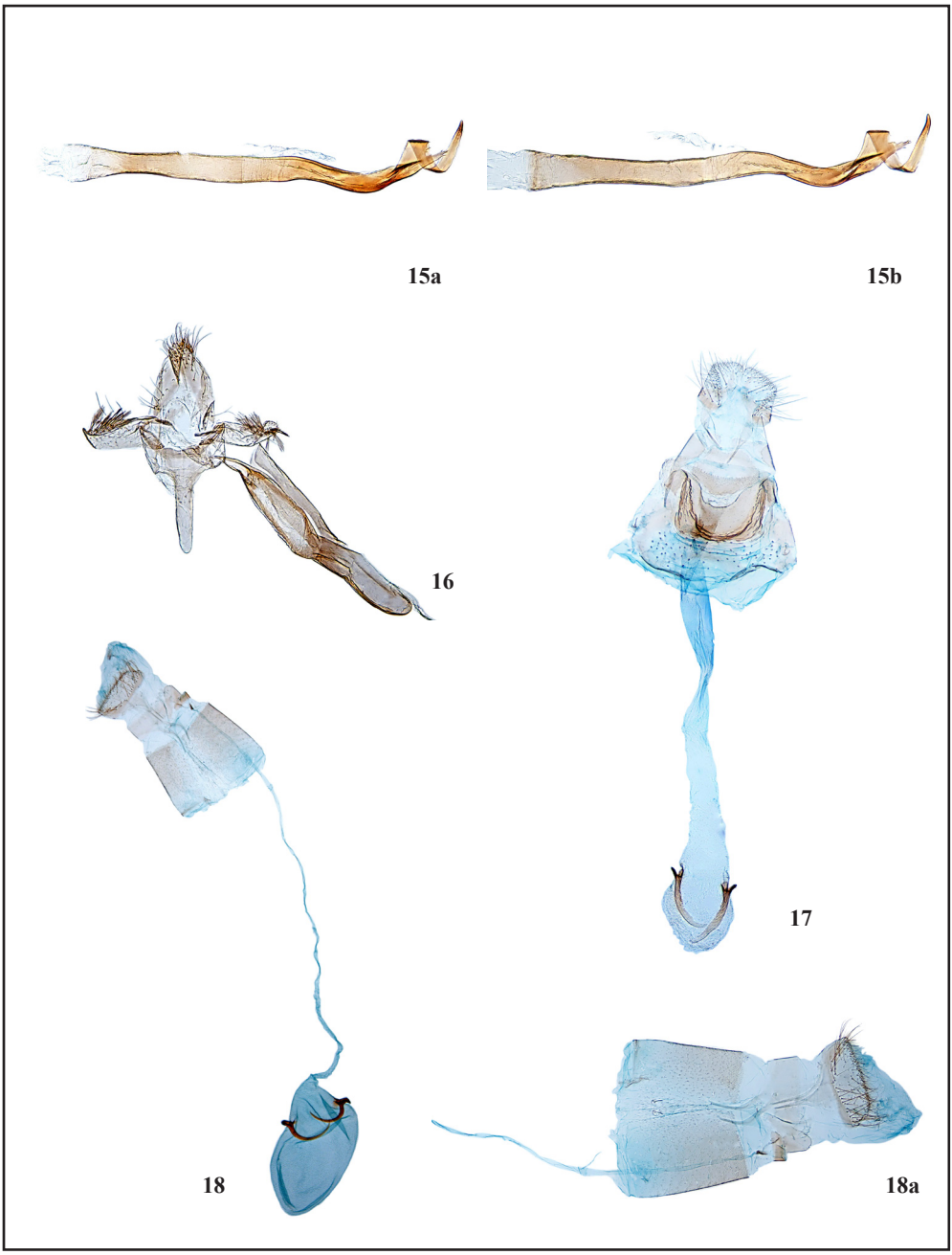
Figures 9-11b. 9. *Metriochroa carreteriaella* Falck, sp. nov., ♀, Gran Canaria, 6 mm. **10.** *Caloptilia coriarella* Falck, sp. nov., ♂, La Palma, GP4094PF. **10a.** *Caloptilia coriarella* Falck, sp. nov., ♂, phallus, GP4094PF. **10b.** *Caloptilia coriarella* Falck, sp. nov., ♂, apex of phallus with cornuti, GP4031PF. **10c.** *Caloptilia coriarella* Falck, sp. nov., ♂, segment 7-8, GP4094PF. **11.** *Caloptilia laurifoliae* (M. Hering, 1927), ♂, Tenerife, GP4093PF. **11a.** *Caloptilia laurifoliae* (M. Hering, 1927), ♂, phallus, GP4093PF. **11b.** *Caloptilia laurifoliae* (M. Hering, 1927), ♂, segment 7-8, GP4093PF.



Figures 12-15. 12. *Caloptilia sassafrasella* (Chambers, 1876), ♂, Canada, MIC8680. Photo J-F Landry. **12a.** *Caloptilia sassafrasella* (Chambers, 1876), ♂, phallus, MIC8680. Photo J-F Landry. **12b.** *Caloptilia sassafrasella* (Chambers, 1876), ♂, segment 7-8, MIC8678. Photo J-F Landry. **13.** *Caloptilia perseae* (Busck, 1920), ♂, Miami, USA, MGCL5708-JEH6385. Photo S. V. Bennett. **14.** *Aspilapteryx multipunctella* (Chrétien, 1917), ♂, Fuerteventura, GP4087PF. **14a.** *Aspilapteryx multipunctella* (Chrétien, 1917), ♂, phallus, GP4087PF. **14b.** *Aspilapteryx multipunctella* (Chrétien, 1917), ♂, phallus, GP4089PF. **15.** *Aspilapteryx anagensis* (Klimesch, 1979), ♂, Tenerife, GP4086PF.



Figures 15a-18a. 15a. *Aspilapteryx anagensis* (Klimesch, 1979), ♂, phallus, GP4086PF. **15b.** *Aspilapteryx anagensis* (Klimesch, 1979), ♂, phallus, GP4088PF. **16.** *Metriochroa carreteriaella* Falck, sp. nov., ♂, Gran Canaria, GP4090PF. **17.** *Caloptilia coriarella* Falck, sp. nov., ♀, La Palma, GP4095PF. **18.** *Caloptilia laurifoliae* (M. Hering, 1927), ♀, Tenerife, GP4033PF. **18a.** *Caloptilia laurifoliae* (M. Hering, 1927), ♀, lamella ante-vaginalis lateral view, GP4033PF.



Figures 18b-21. 18b. *Caloptilia laurifoliae* (M. Hering, 1927), ♀, lamella ante-vaginalis ventral view, GP4078PF. **19.** *Caloptilia sassafrasella* (Chambers, 1876), ♀, Canada, MIC8681. Photo J-F Landry. **20.** *Caloptilia perseae* (Busck, 1920), ♀, Miami, USA, MGCL6991-JEH6382. Photo S. V. Bennett. **20a.** *Caloptilia perseae* (Busck, 1920), ♀, GP21162-aMontage. Photo T. Simões. **21.** *Metriochroa carreteriaella* Falck, sp. nov., ♀, Gran Canaria, GP4091PF.