ENTOMOLOGIA HELLENICA 35(2) (2026): 190-200
Received 9 March 2026 Accepted 17 November 2026 Available online 22 November 2026

An updated catalogue of the moth species of Crete, Greece

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ABSTRACT

This paper presents an updated checklist of the moths of the island of Crete, Greece, compiled using the most recent data available as of 31 December 2025. The moth catalogue comprises 1,320 moth species and is based on multiple data sources. Of these, 66 species are endemic to Crete, while two additional species are considered possibly endemic. Additionally, 8 species are proposed as potential new faunistic records for Crete based on external morphology and supporting bionomic evidence; none appears to have previously been included in published checklists of the island's Lepidoptera.

KEY WORDS: checklist, Crete, Heterocera, endemism, Lepidoptera, potential new records.

Introduction

The island of Crete is considered one of the most important biodiversity hotspots in the Mediterranean Basin, due to its rich species diversity, high levels of endemism, and long-term geographical isolation. The first comprehensive catalogue of the Lepidoptera fauna of the island of Crete was compiled by Rebel 1916, who documented 327 moth and butterfly species. Since then, the moth fauna of Crete has been the subject of continuous study, with important contributions provided periodically by numerous researchers e.g. Reisser 1958, Hacker 1989, Bartsch and Pühringer 2005, Ruckdeschel 2007, Gozmány 2012, Gozmány 2022 and more recently, Huemer et al. 2025.

However, the continuously increasing availability of publicly accessible biodiversity data - particularly through citizen science platforms, specialized websites, and social media - has substantially expanded the volume of faunistic information. Given that many Lepidoptera species can be identified with reasonable confidence based on external morphological characteristics, these data provide valuable insights into species distributions. Considering the island's large geographic extent and high environmental heterogeneity, it is likely that additional species remain undocumented, such as *Leucochlaena labrys* Sattin, Fiumi, Floriani & Govi, 2025 (Sattin 2025), particularly in topographically inaccessible, remote or poorly surveyed areas.

Furthermore, non-native species continue to reach the island through various anthropogenic pathways, both intentional and accidental, thereby facilitating their ongoing introduction and establishment in the local fauna. These pathways include, among others, general commercial exchange, trade and transport of food, tourism, and agricultural activities (Roditakis et al. 2010, Roditakis et al. 2016). The introduction and cultivation of ornamental and other non-native plant species have also been documented as important pathways for the arrival and establishment of invasive species of Lepidoptera on the island (Niamouris and Psirofonia 2012, Demetriou et al. 2020). As a result, an increasing number of alien and potentially invasive Lepidoptera species are being recorded in Crete.

Given the rapidly expanding knowledge base and the continued arrival of newly colonizing species, this study aims to provide a comprehensive and up-to-date checklist of the moth fauna of the island of Crete, integrating recent records with a reassessment of previously published data.

Material and Methods

An extensive review of the available literature and scientific publications concerning the moth fauna of Crete was conducted. All published records were compiled including previously published data from the online platform "Lepiforum e.V. Bestimmung von Schmetterlingen und ihren Präimaginalstadien" (https://lepiforum.org/), following the systematics and nomenclature adopted therein, in accordance with the rules of the International Commission on Zoological Nomenclature (ICZN). Additional information was obtained from the BOLD database (https://portal.boldsystems.org), as well as from citizen science platforms such as "iNaturalist"https://www.inaturalist.org) and "Observation.org" (https://www.observation.org), the Facebook group "Butterflies & Moths of Greece & Cyprus" (https://www.facebook.com/groups/greekbutterflies) and other relevant online resources. The author's personal observations, documented on the website "Butterflies of Crete" (https://butterfliesofcrete.com) and in the iNaturalist project "Moths of Crete" (https://www.inaturalist.org/projects/moths-of-crete), which was created to support the website's content, also contributed substantially to the dataset. Additional records were provided directly by individual observers and are acknowledged on the website alongside the corresponding species photographs. The checklist compiled by the aforementioned sources is presented in Supplementary Table S1. The checklist includes records available up to 31 December 2025. Observations obtained after this date are presented only as supplementary evidence for potential faunistic records and are not incorporated into the checklist.

Furthermore, eight species not previously recorded from Crete (and therefore not included in Supplementary

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Table S1; see Results & Discussion) were identified from photographic evidence, based on diagnostic morphological characters visible in the images, including wing pattern, coloration, body size, labial palps, antennal morphology, etc. These data were supplemented with bionomic information derived either from the author's field observations or from personal communications with observers who had uploaded records to the "iNaturalist" and "Observation.org" online platforms. Records derived from these platforms were used with caution and only when the available photographic material provided sufficiently clear diagnostic characters to support a reliable identification. The data were further evaluated by the author with the use of the bibliographic sources that were also available from specific publications included in the references list.

In cases where direct communication with the observer was not possible (*A. dalmatica, M. lunaris, and one observation of A. endogaea graeca*), the precise dates and locality data provided on "iNaturalist" and "Observation.org" enabled the author to obtain detailed information on the respective habitats, yielding important bionomic information for these taxa.

In other cases, records (*A. peramplana* and one observation of *H. infulalis*) were obtained during daylight hours within their natural habitats and without the use of any attractants. Associated bionomic parameters, including possible host-plant relationships, vegetation composition, and phenology, were documented. In contrast, other records were obtained at night (*C. auroguttella* and one additional observation of *H. infulalis*), when the moths were attracted to a residential wall illuminated by a Heda LED bulb (Model HD112; 6500 K, 12 W, 1100 lm, cool white light).

Confirmation of these identifications, based on images sent to them by e-mail, was provided independently by Colin W. Plant (Hertfordshire, England) and Henry Edmunds (Salisbury, England) for all eight species.

Author's photographic documentation was captured using a Nikon D3400 digital camera equipped with a Sigma 105mm f/2.8 DG Macro HSM lens.

Results & Discussion

Checklist

The moth catalogue of Crete presented in Supplementary Table S1 includes 1,320 species and has been compiled from multiple data sources, using the most up-to-date information available as of 31 December 2025. Of these, 66 species are endemic to Crete, while two are considered possibly endemic.

According to the data available through the online platform Lepiforum e.V. – Bestimmung von Schmetterlingen und ihren Präimaginalstadien (last accessed on 31 December 2025), a total of 3,425 moth species belonging to 25 superfamilies and 72 families have been reported from Greece encompassing both the mainland and all islands including Crete. In contrast, the present checklist (Supplementary Table S1) documents 1,320 moth species belonging to 23 superfamilies and 59 families recorded from Crete. Overall, the moth fauna of Crete represents 38.54% of the moth species currently recorded from Greece. Of the 23 superfamilies present in Crete, the most species-rich, each comprising more than 100 species are the Gelechioidea (292 spp) followed by Noctuoidea (268), Pyraloidea (255), Geometroidea (131) and Tortricoidea (115) whereas 10 superfamilies are represented by less than 5 species. All of the aforementioned data are presented in detail in Table 2.

It must be mentioned that compared to the Greek moth fauna, the Cretan fauna lacks representatives of several families known from Greece, namely: Argyresthiidae, Brachodidae, Cemiostomidae, Endromidae, Eriocraniidae, Heliozelidae, Heterogynidae, Incurvariidae, Lypusidae, Opostegidae, Prodoxidae, and Saturniidae.

Geometridae are probably the best-studied large moth family in Crete, while Arctiinae and most Noctuidae appear to be among the groups closest to being comprehensively documented, as the probability of discovering completely overlooked species is lower than in many microlepidopteran families. On the other hand, groups that still offer room for significant faunistic discoveries on the island are Gelechiidae, Gracillariidae, Cosmopterigidae, Autostichidae, Pterophoridae, Coleophoridae, Elachistidae, and Oecophoridae, (Huemer et al. 2025). Furthermore, the potential new records presented in this study highlight that, despite Tortricidae, Pyralidae, and Crambidae being among the relatively well-studied moth families in Crete, their faunal inventory remains incomplete, as evidenced by the continued discovery of previously unrecorded species.

Potential New Faunistic Records, Based on Photographic Evidence and Observations of Biology and Ecology

Eight potential new faunistic records (not incorporated into Supplementary Table S1) are presented here based on diagnostic external morphological characters and supporting biological and ecological evidence. The eight species are:

1. *Achroia grisella* (Fabricius, 1794)
2. *Agrotis endogaea graeca* Fibiger, 1997
3. *Amephana dalmatica* (Rebel, 1919)
4. *Aphelia peramplana* (Hübner, 1825)
5. *Coleophora auroguttella* (Zeller, 1849)
6. *Hypotia infulalis* Lederer, 1858
7. *Minucia lunaris* ([Denis & Schiffermüller], 1775)
8. *Pyrausta cingulata* (Linnaeus, 1758)

None of these species appears to have been included in any previously published checklist of the Lepidoptera of Crete. Detailed information and locality data are provided below:

***Achroia grisella* (Fabricius, 1794)**

1. Kriti, Sfakia (35°12'08.4"N 24°08'06.9"E), 21.IV.2016, Nils Rogn (pers. comm.), 1 individual attracted to light (Fig. 1A).
2. Kriti, Koutelos (35°12'09.0"N 24°11'53.8"E), 04.XI.2025, Tom Kirschey (pers. comm.), 1 individual (Fig. 1B). Also on iNaturalist https://www.inaturalist.org/observations/324892611.

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Table 2: Comparison of moth species richness by superfamily in Greece and Crete, and the proportion of the Greek fauna occurring in Crete.

No.	Superfamily	Greece (species)	Crete (species)	Crete/Greece (%)
1	Adeloidea	25	2	8.00%
2	Alucitoidea	11	7	63.64%
3	Bombycoidea	26	11	42.31%
4	Carposinoidea	1	1	100.00%
5	Choreutoidea	5	3	60.00%
6	Cossoidea	87	32	36.78 %
7	Douglasioidea	7	3	42.86%
8	Drepanoidea	12	4	33.33%
9	Epermenioidea	7	3	42.86%
10	Eriocranioidea	1	0	0.00%
11	Gelechioidea	813	292	35.92 %
12	Geometroidea	423	131	30.97%
13	Gracillarioidea	95	28	29.47%
14	Hepialoidea	6	1	16.67%
15	Lasiocampoidea	15	3	20.00%
16	Micropterigoidea	10	0	0.00%
17	Nepticuloidea	127	24	18.90 %
18	Noctuoidea	759	268	35,31 %
19	Pterophoroidea	52	34	65.38 %
20	Pyraloidea	459	255	55.56%
21	Tineoidea	179	63	35.20%
22	Tischerioidea	6	3	50.00%
23	Tortricoidea	195	115	58.97%
24	Yponomeutoidea	67	30	44.78%
25	Zygaenoidea	37	7	18.92%
	Total	**3,425**	**1,320**	**38.54 %**

The lesser wax moth, *Achroia grisella*, is distributed worldwide in regions where honeybees are kept for commercial or hobbyist purposes. In Greece, a single record from the Peloponnese is reported by Huemer and Mutanen 2022. The species was also reported from the Republic of North Macedonia by both Rebel 1931 [1934] and Thurner 1941, but was not listed for any part of Greece by Plant and Jaksic 2018.

Adults are slender, silver-grey to dull yellow, with a characteristic golden-yellow head and vestigial mouthparts (Hakanoglu et al. 2024). The distinctive golden-yellow head, together with the fact that beekeeping is widely practiced in both observation areas, is consistent with the identification of the recorded individuals as *Achroia grisella*.

***Agrotis endogaea graeca* Fibiger, 1997**

1. Kriti, Gazi, 23.X.2022, 1 individual (Fig. 1D). On iNaturalist https://www.inaturalist.org/observations/139943232
2. Kriti, Malia, 19.X.2024, Christoph Leeb (pers. comm.), 1 individual (Fig. 1E). Also on iNaturalist https://www.inaturalist.org/observations/249057297

Agrotis endogaea graeca Fibiger, 1997 is a geographically restricted Greek subspecies of *A.* endogaea (Agius, 2024), currently known mainly from northern Greece, with the type locality situated near the Strymon River at Nea Kerdylia, Serres (Fibiger, 1997). The external appearance of the two recorded specimens is consistent with the characteristic forewing pattern of the species complex. However, identification to subspecies level based solely on external morphology and photographic evidence should be treated with caution. Given the geographical isolation of Crete, the possibility that the specimens may represent a distinct insular form, potentially endemic to the island, cannot be excluded. Therefore, the present records are considered preliminary evidence for the possible occurrence of *A. endogaea graeca* in Crete. Further studies, including examination of genitalia and DNA barcoding, are recommended to

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confirm the identity and taxonomic status of the Cretan specimens.

***Amephana dalmatica* (Rebel, 1919)**

1. Kriti, Kato Archanes, 08.IV.2025, Jim Brighton (pers. comm.), 1 individual (Fig. 1C). Attracted to Entoquip Light USB (12 W, 120 diodes, dual-wavelength UV-A). Also on iNaturalist .https://www.inaturalist.org/observations/269307830

This species is distinctive. There is no *Amephana* species previously described from Crete. The recorded species can be easily identified as member of genus *Amephana* due to the characteristic pattern of the forewings visible on the photos. The diagnostic features of *Amephana dalmatica* described by Rebel 1919 (as cited in Lepiforum e.V. 2025 (https://lepiforum.org/wiki/page/Amephana_dalmatica)) include darker overall coloration, broader median area of the forewing, straighter, more parallel transverse lines, larger, black-filled triangular reniform stigma and conspicuous dark transverse band on the underside of the hindwing.

***Aphelia peramplana* (Hübner, 1825)**

This species appears to be very abundant in habitats such as dry, rocky areas, on rocky limestone slopes, and open xerophytic shrubland where the food plant *Drimia maritima* (L.) Stearn is common (Fig. 3H). During December and February (2024-2025 and 2025-2026), large populations of larvae and pupae were observed on the leaves of numerous *Drimia maritima* plants. Larvae used silk to tie or roll the leaves together, forming shelters in which they were feeding externally on plant tissue while remaining protected from predators (Figs 2A-2E). Pupation was observed also within the larval shelter (Figs 2F-2G). Adults have been recorded between March and April; however, there are strong indications that the species is already on the wing from early February, as empty pupal exuviae repeatedly observed *in situ* during that month indicate recent emergence.

Asphodelus ramosus L., proposed in Kennel 1908 as a host plant of *Aphelia peramplana*, was abundant in all biotopes where larvae/pupae were recorded (Fig. 3I). However, no infestation of any of these plants was observed. This strongly suggests that *Drimia maritima* is, at least locally, the preferred larval host plant.

Some of the localities observed:

1. Kriti, Iraklio (35°19'45.1"N 25°09'07.6"E), 28.I.2024 (Fig. 2B), 23.II.2024 (Figs 2F-2G), 14.XII.2024, 18.I.2025, larvae and pupae on *Drimia maritima*. 5.III.2026 (Figs 2H-2I, 3A-3D), adults. Kalliopi Bormpoudaki, direct *in situ* sighting.
2. Kriti, Skalani (35°17'57.1"N 25°10'18.0"E), 11.I.2025 (Fig. 2C), larva on *Drimia maritima*. Kalliopi Bormpoudaki, direct *in situ* sighting.
3. Kriti, Anopoli (35°19'08.0"N 25°16'02.8"E), 15.III.2025, 1 adult. Kalliopi Bormpoudaki, direct *in situ* sighting.
4. Kriti, Karteros (35°19'47.9"N 25°12'23.0"E), 14.XII.2024 (Fig. 2A), 17.XII.2025 (Figs 2D, 2E), larvae on *Drimia maritima*. 4.IV.2025 and 5.III.2026 (Fig. 3E), adults. Kalliopi Bormpoudaki, direct *in situ* sighting.
5. Kriti, Elia (35°18'43.1"N 25°13'56.0"E), 5.III.2026 (Figs 3F-3G), adults. Kalliopi Bormpoudaki, direct *in situ* sighting.

At all the above-mentioned localities, larvae and pupae were observed in high numbers, with nearly every *Drimia maritima* plant appearing to be infested. More than five adult individuals were also recorded in each surveyed biotope on 5 March 2026, typically hiding beneath the leaves of *Drimia maritima* plants.

Finally, the observed morphological features, including wing pattern, coloration, and overall habitus, are consistent with *Aphelia* species. One observed specimen had an estimated wingspan of approximately 25 mm (Fig. 3A), a measurement compatible with the known size range of the species.

***Coleophora auroguttella* (Zeller, 1849)**

1. Kriti, Iraklio (35°19'27.4"N 25°09'20.2"E), 06.IX.2024, Kalliopi Bormpoudaki, 1 individual (Figs 4A-4B), attracted to light, direct *in situ* sighting.

The occurrence of *Coleophora auroguttella* at the observation site is supported by several independent lines of ecological and morphological evidence. The species is known to develop on *Atriplex halimus* (Huertas, 2005), a plant that is abundant in the immediate vicinity of the observation site. In contrast, the only known host plant of *Coleophora limoniella*, *Limonium* spp., is absent from the surrounding habitat and occurs only at distances exceeding 3 km.

With very few exceptions, wild-caught specimens of the genus *Coleophora* require genitalia dissection for reliable identification. However, *C. auroguttella* is morphologically distinct from other *Coleophora* species. Although *C. limoniella* is the only species with a superficially similar appearance, the two taxa can be distinguished by external characters. Stainton 1884 (as cited in Lepiforum e.V. 2025 (https://lepiforum.org/wiki/page/Coleophora_auroguttella)), noted that *C. auroguttella* has a pale canary-yellow forewing ground color, whereas *C. limoniella* has a much darker, brass-yellow ground color. He further emphasized that the most reliable external character is the apical portion of the costal cilia, which in *C. limoniella* grades from brassy dark yellow to dark grey, while in *C. auroguttella* the cilia remain pale canary-yellow and therefore contrast strongly with the adjacent apical black streak. The photographed specimen clearly exhibits the pale canary-yellow ground color and costal cilia characteristic of *C. auroguttella*, providing additional support for its identification.

***Hypotia infulalis* Lederer, 1858**

1. Kriti, Iraklio (35°19'27.4"N 25°09'20.2"E), 24.IX.2025, Kalliopi Bormpoudaki, 1 individual attracted to light (Figs 4E-4F), direct *in situ* sighting.

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2. Kriti, Iraklio (35°20'15.4"N 25°06'01.2"E), 26.VII.2024, Kalliopi Bormpoudaki, 1 individual (Figs 4C-4D), direct *in situ* sighting.

The general wing patterning is characteristic of *Hypotia* species, with well-defined transverse lines and spots providing important diagnostic characters. However, the wing pattern of *Hypotia infulalis*, though broadly similar to that of *Hypotia corticalis*, which also occurs on Crete, is relatively distinctive with more contrasting forewing pattern, characterized by a conspicuous pale median band bordered by darker basal and terminal areas, together with broader chequered fringes (Lederer, 1858, as cited in Lepiforum e.V. 2025 (https://lepiforum.org/wiki/page/Hypotia_infulalis)).

***Minucia lunaris* ([Denis & Schiffermüller], 1775)**

1. Kriti, Malia, 12.IX.2025, 1 individual (Fig. 4I). On Observation.org https://observation.org/observation/344345899

Although the observation lacks precise geographic coordinates and the author was unable to contact the observer to obtain a more accurate locality, the record is considered plausible because the species has a distinctive external appearance and cannot be confused with any other European species. In addition, its host plants (*Quercus* spp.) are abundant both in the surrounding area and throughout the island, providing suitable habitat for the species.

***Pyrausta cingulata* (Linnaeus, 1758)**

Widespread in the Balkans, including Bulgaria (Plant 2016) and Albania (Plant et al. 2026). According to the comprehensive bibliography of Balkan Pyraloidea by Plant and Jakšic 2018, this species is recorded for Greece in Karsholt and Razowski 1996, without data, and in Slamka 2013. The latter based on the former source (Colin W. Plant, personal communication). Both reports almost certainly refer to the mainland; Crete is not indicated on the distribution map provided by Slamka 2013. Therefore, these present data appear to be the first for Crete.

1. Kriti, Melidoni (35°22'54.2"N 24°44'15.4"E), 01.VII.2022, Paul Hopkins (pers. comm.), 1 individual, (Figs 4G-4H). Also on iNaturalist https://www.inaturalist.org/observations/258472601

Pyrausta cingulata is morphologically distinct from most species of *Pyrausta*. It may be distinguished from the superficially similar *Pyrausta rectefascialis* by the shape of the white forewing fascia, which is distinctly angled (Fig. 4H) in *P. cingulata,* whereas it is nearly straight in *P. rectefascialis*. However, according to Huemer (as cited in Lepiforum e.V. 2025 (https://lepiforum.org/wiki/page/Pyrausta_cingulata)) although the character may appear reliable based on his specimens examined so far and in the illustrations in Slamka 2013, he cannot confirm that it would remain constant or diagnostic if a larger number of individuals were studied.

The larva of *P. cingulata* allegedly feeds on several Lamiaceae, particularly species of *Thymus* and *Salvia*, both of which are abundant in the area where the specimen was observed.

***Domesticated species: Bombyx mori* Linnaeus, 1758**

Bombyx mori Linnaeus, 1758 (Figs 1F, 1G), the domesticated silkworm derived from the East Asian species *Bombyx mandarina* (Moore, 1872), has been reared for silk production, and sericulture has been practiced sporadically in Crete for centuries (Pashley 1994, Haniotika nea 2023). In recent years, local initiatives have sought to revive this traditional activity on a small scale (Rethemniotika nea 2026). Although this fully domesticated species has never established wild populations and therefore is not considered part of the wild moth fauna of Crete, it is mentioned here because of its long historical and cultural association with the island.

Conclusion

The updated checklist of the moths of Crete comprises 1,320 species. Compared to the most recent catalogue of the island (Huemer et al. 2025), which lists 1,185 confirmed moth species—all of which are included in Supplementary Table S1—the observed increase can be attributed to two primary factors:

The “Lepidoptera of Greece and Cyprus, Fauna Graecia X, Volume 2” (Gozmány 2022), which was not included among the bibliographic sources of the previous catalogue, documents numerous species that have been overlooked. Among these are several species presented also on the website “Butterflies of Crete”, such as *Prochoreutis myllerana* (Fabricius, 1794), *Agdistis frankeniae* (Zeller, 1847), *Aethes margarotana* (Duponchel, [1836]), *Lobesia indusiana* (Zeller, 1847), for which high-quality photographic documentation, in combination with detailed bionomic data and supplementary information, allows for a highly reliable identification.

During 2025, several new publications (e.g. Fazekas and Edmunds 2025$_{a,b}$) reported additional species records for Crete and have therefore been incorporated into the present list. Moreover, the website “Butterflies of Crete” and online citizen science platforms such as “iNaturalist” and “Observation.org” continue to support the expansion of the island’s species inventory. It should be noted, however, that many species occurring on the island cannot be reliably identified from photographs alone, particularly in the case of cryptic taxa, taxonomically unresolved species complexes, etc. and thus further research is needed. Confirmation through additional methods, such as genitalia examination and DNA barcoding, is recommended to validate these records.

In conclusion, the moth fauna of Crete demonstrates substantial potential for further enrichment, as significant areas of the island remain insufficiently surveyed. Even in relatively well-studied regions, more comprehensive and seasonally extensive investigations are likely to yield additional and potentially unexpected records.

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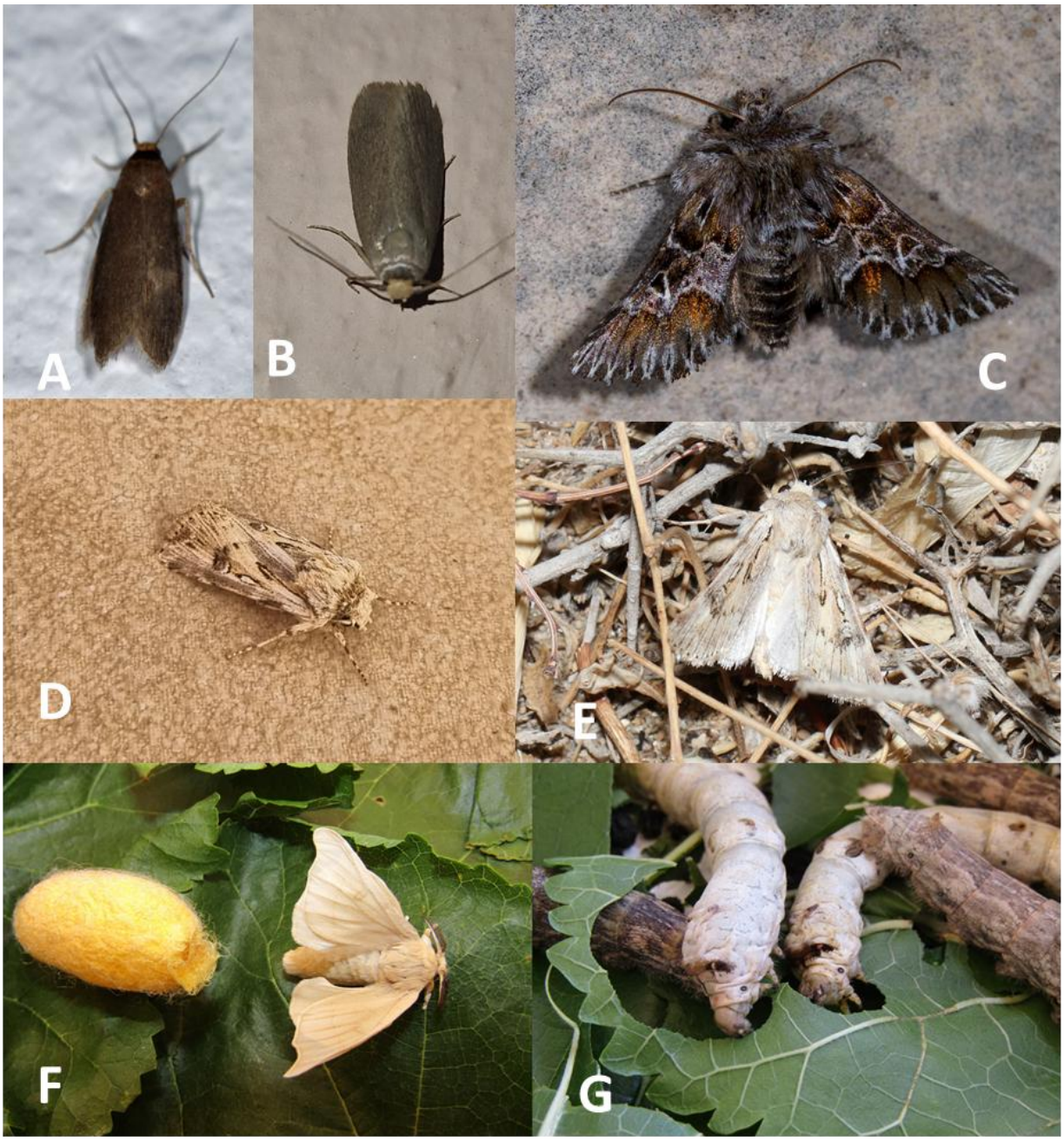

FIG. 1: (A) *A. grisella*, Sfakia, 21.IV.2016. (B) *A. grisella*, Koutelos beach, 04.XI.2025. (C) *A. dalmatica,* Kato Archanes, 08.IV.2025. (D) *A. endogaea graeca*, Gazi, 23.X.2022. (E) *A. endogaea graeca*, Malia, 19.X.2024. (F) Freshly emerged individual of *B. mori* and its cocoon, Iraklio, 18.VI.2022. (G) Cult. *B. mori* larvae feeding on *M. alba* leaves, Iraklio, 25.V.2022.

Photos by N. Rogn (A), T. Kirschey (B), J. Brighton (C), (D), https://www.inaturalist.org/observations/139943232 C. Leeb (E), K. Bormpoudaki (F)-(G).

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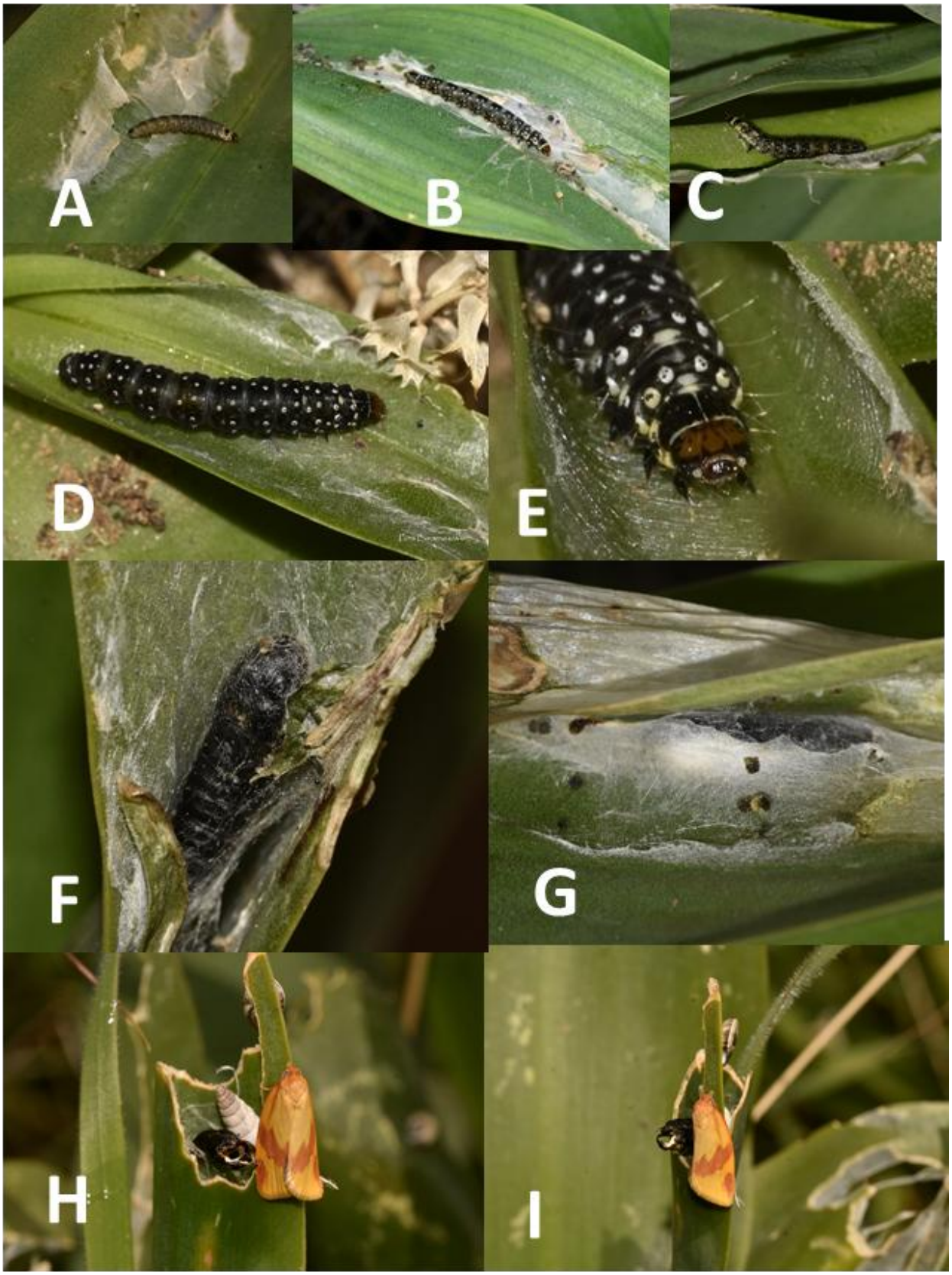

FIG. 2: Life cycle stages of *A. peramplana*. (A) Larva (early stage), Karteros 14.XII.2024. (B) Larva, Iraklio, 28.I.2024. (C) Larva, Skalani, 11.I.2025. (D)-(E) Larva, Karteros, 17.XII.2025. (F)-(G) Pupae, Iraklio, 23.II.2024. (H)-(I) Freshly emerged individual, Iraklio, 5.III.2026. Photos by K. Bormpoudaki.

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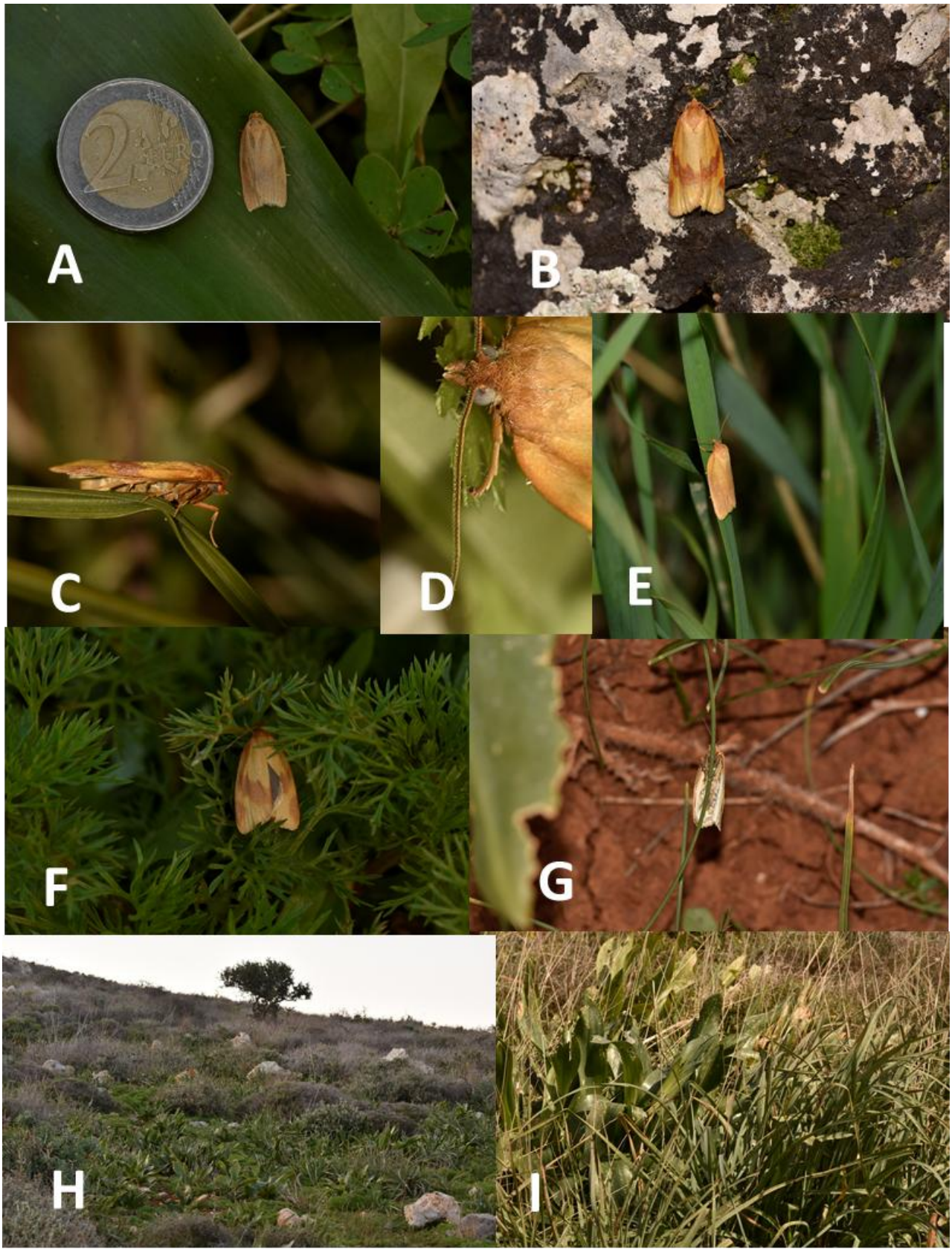

FIG. 3: Adults of *A. peramplana* and typical habitats with *D. maritima* plants, 5.III.2026. (A) A comparison of an adult, Iraklio. (B)-(C) Adults, Iraklio. (D) Antenna of an adult (detail), Iraklio. (E) Adult, Karteros. (F)-(G), Adults, Elia. (H) Natural habitat occupied by *A. peramplana*, Elia. (I) Habitat with *D. maritima* (left) and *A. ramosus* (right), Iraklio. Photos by K. Bormpoudaki.

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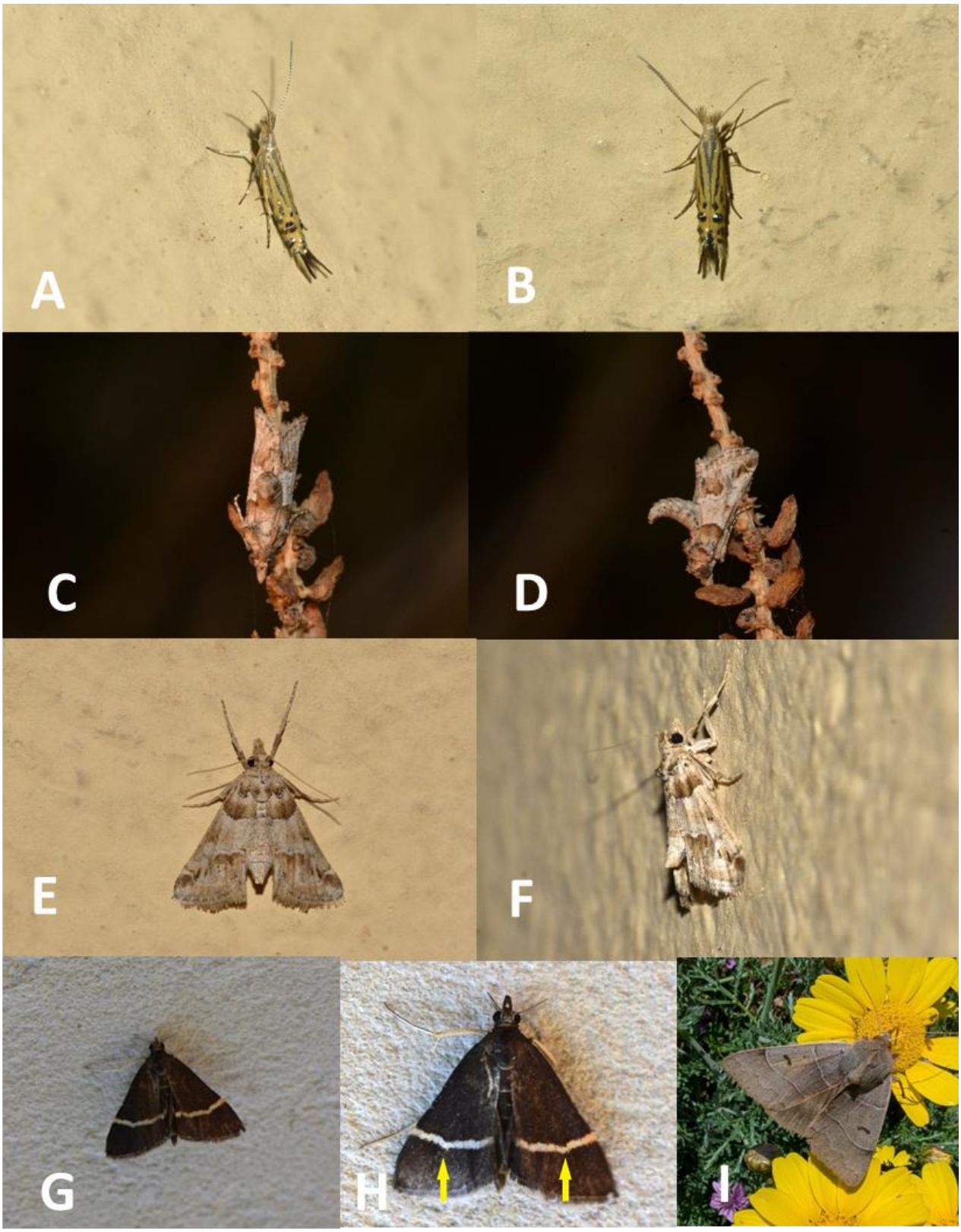

FIG. 4: (A)-(B) *C. auroguttella*, Iraklio, 06.IX.2024. (C)-(D) *H. infulalis*, Iraklio, 26.VII.2024. (E)-(F) *H. infulalis*, Iraklio, 24.IX.2025. (G)-(H) *P. cingulata,* Melidoni, 01.VII.2022. (I) *M. lunaris*, Malia, 12.IX.2025. Photos by K. Bormpoudaki (A)-(F), P. Hopkins (G)-(H), (I).https://observation.org/observation/344345899/

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Acknowledgements

Special thanks are extended to Jim Brighton, Paul Hopkins, Tom Kirschey, Christoph Leeb and Nils Rogn, for generously providing photographic material and valuable information relating to their records.

The author is grateful to Colin W. Plant and Henry Edmunds for their identification and/or confirmation, based on color images provided by e-mail, of the eight species presented as potential new faunistic records for Crete, and for their thoughtful and constructive comments, which significantly strengthened the manuscript.

The author also gratefully acknowledges Lazaros N. Pamperis and Olga Tzortzakaki for their insightful feedback and constructive comments and suggestions, which helped improve the clarity and quality of this research.

The necessary permits were formally obtained by the Greek Ministry of Environment, Energy and Climate Change (ΑΔΑ: ΨΙΗΨ4653Π8-ΟΨΟ, ΨΦΙΛ4653Π8-ΗΩ7).

References

Agius, J. 2024. *Agrotis endogaea punica* Pinker, 1980, a new Noctuidae for Malta, including an updated Noctuoidea checklist for the Maltese Islands (Lepidoptera: Noctuidae). SHILAP Revista de Lepidopterología 52 (207): 567-573.

Bartsch, D. and F. Pühringer. 2005. Die Glasflügler Kretas (Lepidoptera: Sesiidae). Entomol. Z. 115: 131-139.

Demetriou, J., C. Kazilas, E. Koutsoukos and K. Kalaentzis. 2020. A new tropical invader in Greece: the lantana plume moth *Lantanophaga pusillidactylus* (Lepidoptera: Pterophoridae). Entomol. Hellenica 29: 1-7.

Fazekas, I. and H. Edmunds. 2025$_a$. A new moth species in Europe: *Noorda blitealis* Walker, 1859 on the island of Crete (Lepidoptera, Crambidae). Lepidopterol. Hung. 21: 9-16.

Fazekas, I. and H. Edmunds. 2025$_b$. Observations of *Griposia aprilina* (Linnaeus, 1758) on the island of Crete: new phenological and bionomical data (Lepidoptera, Noctuidae). Lepidopterol. Hung. 21: 183-184.

Fibiger, M. 1997. Noctuinae III. Noctuidae Europaeae 3. Entomological Press, Sorø. 418 pp.

Gozmány, L. 2012. The Lepidoptera of Greece and Cyprus. Fauna Graecia IX. Volume 1. Hellenic Zoological Society, Athens. 409 pp.

Gozmány, L. 2022. The Lepidoptera of Greece and Cyprus. Fauna Graecia X. Volume 2. Hellenic Zoological Society, Athens. 377 pp.

Hakanoglu H., F. Huval, C. Carlton & T. Reagan. 2024. *Achroia grisella*, Lesser Wax Moth (Lepidoptera: Pyralidae). Bug Biz Pest Management and Insect Identification Series. Louisiana State University Agricultural Center, Publication 3906, 4 pp.

Hacker, H. 1989. Die Noctuidae Griechenlands. Mit einer Übersicht über die Fauna des Balkanraumes. Herbipoliana, 2:1-589.

Huemer, P., K. Berggren, L.C. Aarvik, E. Rennwald, A. Hausmann, A. Segerer, G. Staffoni, A.M. Aspaas, A. Trichas and P.D.N. Hebert. 2025. Extensive DNA barcoding of Lepidoptera of Crete (Greece) reveals significant taxonomic and faunistic gaps and supports the first comprehensive checklist of the island's fauna. Insects 16: 438.

Huemer, P. and M. Mutanen. 2022. An Incomplete European Barcode Library Has a Strong Impact on the Identification Success of Lepidoptera from Greece. Diversity, 14:118.

Huertas Dionisio, M. 2005. Estados inmaduros de Lepidoptera (XXII). Dos especies del género *Goniodoma* Zeller, 1849 en Huelva, España (Lepidoptera: Coleophoridae). SHILAP Revta. lepid. 33: 5-15.

Karsholt, O. and J. Razowski. 1996. The Lepidoptera of Europe: A distributional checklist. Apollo Books, Stenstrup, Denmark.

Kennel, J. 1908. Die palaearktischen tortriciden. Eine monographische darstellung. Zoologica, 21: 1-546.

Niamouris, K. and P. Psirofonia. 2012. First report of *Paysandisia archon* on *Phoenix theophrasti*. Entomol. Hellenica 21: 74-76.

Pashley 1994. Travels in Crete. Syndesmos TEDK Kritis, Vikelaia Vivliothiki editions Vol. 1 and Vol. 2, 270 pp.

Plant, C.W., Beshkov, S., Bond, K.G.M., Buchner, P., Fazekas, I., Graf, F., Larsen, K. and I. Richter. 2026. A first, provisional, annotated checklist of the microlepidoptera of Albania. SHILAP Revista de Lepidopterología [in press].

Plant, C.W. and P. Jaksic. 2018. A provisional checklist and bibliography of the Pyraloidea of the Balkan Peninsula. Atalanta 49: 219-263.

Plant, C.W. 2016. An annotated, systematic, synonymic and distributional checklist of the Pyraloidea of Bulgaria. Neue Entomologische Nachrichten 72: 1-231.

Rebel, H. 1916. Die Lepidopterenfauna Kretas. Ann. K. K. Naturhist. Hofmus. 30: 66-172.

Rebel, H. 1931 [1934]. Die Lepidopterenfauna Albaniens (mit Berücksichtigung der Nachbargebiete). Denschriften/Akademie det Wissenschaften in Wien, Mathematische-Naturwissenschaftliche Klasse 103: 37-161.

Reisser, H. 1958. Neue Heteroceren aus Kreta. Z. Wien. Entomol. Ges., 43: 105-128.

Roditakis, E., D. Papachristos and N. Roditakis. 2010. Current status of tomato leafminer *Tuta absoluta* in Greece. EPPO Bull. 40: 163-166.

Roditakis, E., S. Morin and J. Baixeras. 2016. Is *Bactra bactrana* (Kennel, 1901) a novel pest of sweet peppers? Bull. Entomol. Res. 106: 161-167.

Ruckdeschel, W. 2007. Die Geometriden Kretas (Lepidoptera, Geometridae). Nachrichtenblatt Bayer. Entomol. 56: 2-12.

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Sattin, L., G. Fiumi, A. Floriani and G. Govi. 2025. *Leucochlaena labrys*, a new species from Crete, Greece (Lepidoptera: Noctuidae, Xyleninae, Episemini). Ecol. Montenegrina 81: 43-53.

Slamka, F. 2013. Pyraloidea of Europe (Lepidoptera). Volume 3. Pyraustinae & Spilomelinae. F. Slamka, Bratislava, Slovakia. 357 pp.

Thurner, J. 1941. Die Schmetterlinge der Ohrid-Genend in Mazedonien. Mitteilungen aus den Königi Naturwissenschaftlichen Instituten in Sofia 14: 9-35.

Web References

Butterflies of Crete. (last accessed on 31/12/2025).www.butterfliesofcrete.com

Butterflies & Moths of Greece & Cyprus (facebook group). (last accessed on 31/12/2025).https://www.facebook.com/groups/greekbutterflies

Haniotika Nea. Available online. (last accessed on 19/7/2026).https://www.haniotika-nea.gr/i-sirotrofia-stin-kriti/

iNaturalist. (last accessed on 31/12/2025).https://www.inaturalist.org

Lepiforum e.V. Website zur Bestimmung von Schmetterlingen (Lepidoptera) und ihren Präimaginalstadien. (last accessed on 31/12/2025).http://www.lepiforum.org

Observation.org. https://www.observation.org (last accessed on 31/12/2025).

Rethemniotika nea. Available online. https://rethnea.gr/anaviosi-tis-paradosiakis-kalliergeias-kai-ektrofis-metaxoskolika-ston-mylopotamo/ (last accessed on 19/7/2026).

The Barcode of Life Data Systems (BOLD) portal. (last accessed on 28/09/2025).https://portal.boldsystems.org/recordset/DS-LEPICRET

Επικαιροποιημένος κατάλογος των ειδών νυχτοπεταλούδων της Κρήτης

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[1]Butterflies of Crete, Ανεξάρτητη Ερευνητική Πρωτοβουλία στο πλαίσιο της Επιστήμης των Πολιτών (Citizen Science), Κρήτη, Ελλάδα

ΠΕΡΙΛΗΨΗ

Στην παρούσα εργασία παρουσιάζεται ένας επικαιροποιημένος κατάλογος για τα είδη νυχτοπεταλούδων (moths) της νήσου Κρήτης, ο οποίος καταρτίστηκε με βάση τα πλέον πρόσφατα διαθέσιμα δεδομένα έως τις 31 Δεκεμβρίου 2025. Ο κατάλογος περιλαμβάνει συνολικά 1,320 είδη από τη σύνθεση δεδομένων που προέρχονται από βιβλιογραφικές και άλλες πηγές. Από αυτά, 66 είδη είναι ενδημικά της Κρήτης, ενώ δύο επιπλέον είδη θεωρούνται πιθανώς ενδημικά. Επιπροσθέτως, προτείνονται βάσει διαγνωστικών εξωτερικών μορφολογικών χαρακτήρων και υποστηρικτικών βιονομικών στοιχείων 8 είδη ως πιθανές νέες καταγραφές για την Κρήτη, τα οποία δεν φαίνεται να έχουν συμπεριληφθεί έως σήμερα σε άλλους δημοσιευμένους καταλόγους για τα λεπιδόπτερα του νησιού.

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