*SHILAP Revista de lepidopterología,* 47 (187) septiembre 2019: 535-556 eISSN: 2340-4078 ISSN: 0300-5267
https://doi.org/10.57065/shilap.549

# Lepidopterological fauna of *Alnus glutinosa* (L.) Gaertn., forests in the Sila Massif (southern Italy) (Insecta: Lepidoptera)

F. L. Leonetti, S. Greco, A. Ienco & S. Scalercio

**Abstract**

In this paper we described the Lepidoptera fauna of the Calabrian black alder forests in the Sila Massif, southern Italy. We sampled eight stands for moths and four stands for diurnal Lepidoptera, at 1250-1397 meters of altitude. One UV-Led light traps per stand was turned on once per month from March to November 2017 to sample moths, one semi-quantitative transect per stand carried out once every two weeks from April to September 2017 to sample diurnal Lepidoptera. We collected 9,140 individuals belonging to 402 species, of which 117 species of diurnal Lepidoptera and 306 of nocturns Lepidoptera. *Orthosia incerta* (Noctuidae) and *Eilema lurideola* (Erebidae) were the most abundant nocturns Lepidoptera species, *Maniola jurtina* (Nymphalidae) and *Polyommatus icarus* (Lycaenidae) were the most abundant diurnal species. Particularly interesting was the presence of many species of great biogeographic and/or conservation interest such as *Dychagiris signifera*, *Acossus terebra*, *Plusidia cheiranthi*, and *Zygaena nevadensis* among Heterocera, and *Zerynthia cassandra*, *Parnassius mnemosyne*, *Brenthis ino* and *Phengaris arion* among Rhopalocera. Furthermore, the finding of *Eupithecia trisignaria* strongly improve the importance of black alder forests for the conservation of biodiversity.
KEY WORDS: Insecta, Lepidoptera, biodiversity, *Alnus glutinosa*, Sila National Park, Calabria, Italy.

**Fauna lepidotterologica dei boschi di *Alnus glutinosa* (L.) Gaertn., nel Massiccio della Sila (Italia meridionale) (Insecta: Lepidoptera)**

**Riassunto**

In questo articolo si descrive la fauna lepidotterologica delle foreste di ontano nero presenti nel Massiccio della Sila, nel sud Italia. Sono state campionate otto stazioni per i Lepidoptera notturni e quattro per i Lepidoptera diurni, ad una altitudine compresa tra 1250 m e 1397 m s.l.m.. Da marzo a novembre 2017, mensilmente, è stata posizionata una trappola luminosa a luce UV nelle stazioni scelte per il campionamento delle specie notturne; un transetto semi-quantitativo è stato condotto una volta ogni due settimane, da aprile a settembre 2017, nelle stazioni scelte per il campionamento delle specie diurne. Sono stati raccolti 9.140 individui appartenenti a 402 specie, di cui 117 specie di Lepidoptera diurni e 306 specie di Lepidoptera notturni. Le specie notturne più abbondanti sono *Orthosia incerta* (Noctuidae) e *Eilema lurideola* (Erebidae); le specie diurne più abbondanti sono *Maniola jurtina* (Nymphalidae) e *Polyommatus icarus* (Lycaenidae). Di particolare interesse la presenza di diverse specie di interesse biogeografico e/o conservazionistico come *Dychagiris signifera*, *Acossus terebra*, *Plusidia cheiranthi*, e *Zygaena nevadensis* tra gli Heterocera, e *Zerynthia cassandra*, *Parnassius mnemosyne*, *Brenthis ino* e *Phengaris arion* tra i Rhopalocera. Inoltre, la presenza di *Eupithecia trisignaria* evidenzia l'importanza delle foreste di ontano nero per la conservazione della biodiversità.

PAROLE CHIAVE: Insecta, Lepidoptera, biodiversità, *Alnus glutinosa,* Parco Nazionale della Sila, Calabria, Italia.

**Fauna lepidopterológica del bosque de *Alnus glutinosa* (L.) Gaertn., en el Macizo de Sila (Italia meridional) (Insecta: Lepidoptera)**

**Resumen**

En este artículo se describe la fauna lepidopterológica del bosque de alisos en el Macizo de Sila, en el sur de Italia. Se muestrearon ocho estaciones para los Lepidoptera nocturnos y cuatro para los Lepidoptera diurnos, a una altitud comprendida entre los 1.250 m e 1.397 m s.l.m.. De marzo a noviembre de 2017, mensualmente, ha estado colocada una trampa luminosa de luz UV en las estaciones elegidas para el muestreo de las especies nocturnas; se realizó un transecto semicuantitativo una vez cada dos semanas, de abril a septiembre de 2017, en las estaciones elegidas para el muestreo de especies diurnas. Se recogieron 9.140 individuos pertenecientes a 402 especie, de los cuales 117 especies de Lepidoptera diurna y 306 especie de Lepidoptera nocturna. Las especies nocturnas más abundantes son *Orthosia incerta* (Noctuidae) e *Eilema lurideola* (Erebidae); las especies diurnas más abundantes son *Maniola jurtina* (Nymphalidae) e *Polyommatus icarus* (Lycaenidae). De particular interés es la presencia de especies de interés biogeográfico y/o conservacionístico como *Dychagiris signifera*, *Acossus terebra*, *Plusidia cheiranthi* y *Zygaena nevadensis* entre los Heterocera y *Zerynthia cassandra*, *Parnassius mnemosyne*, *Brenthis ino* y *Phengaris arion* entre los Rhopalocera. Además, la presencia de *Eupithecia trisignaria* evidencia la importancia del bosque de alisos para la conservación de la biodiversidad.
PALABRAS CLAVE: Insecta, Lepidoptera, biodiversidad, *Alnus glutinosa,* Parque Nacional de Sila, Calabria, Italia.

## Introduction

Lepidopteran fauna of the Sila Massif was explored by several authors which highlighted the great interest of this mountainous area always providing surprises to lepidopterists. For example, the recently described *Nothocasis rosariae* Scalercio, Infusino & Hausmann, 2016 (Geometridae) has here its locus typicus (SCALERCIO *et al*., 2016). Among Macrolepidoptera, one species is endemic of this massif, *Itame messapiaria* Sohn-Rethel, 1929 (Geometridae), and a number of species has relict populations here, some of which reported in Italy with certitude only for the Alps and for the Sila Massif only, namely *Brenthis ino* (Rottemburg, 1775) (Nymphalidae), *Acossus terebra* ([Denis & Schiffermüller], 1775) (Cossidae), *Dichagyris signifera* ([Denis & Schiffermüller], 1775) (Noctuidae). Furthermore, *Zygaena nevadensis* Rambur, 1858 (Zygaenidae) and *Eupithecia conterminata* (Lienig, 1846) (Geometridae) are known with certitude in Italy only from the Sila Massif (EFETOV *et al*., 2011; INFUSINO & SCALERCIO, 2015). Although its great biogeographic importance, very few data concerning abundance and community composition of Lepidoptera inhabiting the Sila Massif are available (SCALERCIO *et al*., 2008; INFUSINO *et al*., 2017a), and none of these is specifically devoted to the fauna of black alder forests (*Alnus glutinosa* (L.) Gaertn.).

These forests extend along the watercourses not following an altitudinal zonation and in wild condition they set up swamped riparian woods. Conditioned by the presence of water, they are vulnerable both by agricultural activities, whose subsistence is conditioned by large water catchments by the streams, and by climate change. During the 20th century, in fact, a decrease in precipitation of up to 20% was observed in some parts of southern Europe (EEA, 2008) with a consequent increase in local drought events. Another threat is deforestation both for the conversion of grazing woods and for the demand for timber. This last activity in the first half of 20th century involved all the forests, causing deep changes in the Sila landscapes (IOVINO & MENGUZZATO, 2000; CIANCIO *et al.*, 2005).

In the Sila Massif black alder forests (*Alnus glutinosa* (L.) Gaertn.) develop along water

courses as a result of human pressure, especially within landscape with strong human impact. In the most natural contexts, they develop on more large patches forming small, compact woodlots which often are in continuity with beech and pine forests. The first type plays the important role as ecological corridor among forest patches, increasing long-distance movements of habitat-restricted species (HADDAD, 1999).

Black alder forests are classified in the *Euphorbio-Alnetum glutinosae* association of the phytosociological alliance *Salici purpureae-Populetae nigrae* and they are among the priority habitats (Annex I) of Directive 92/43 / CEE - Habitat code 91E0: Alluvial forests with *Alnus glutinosa* (L.) Gaertn. and *Fraxinus excelsior* L. (*Alno-Padion, Alnion incanae, Salicion albae*).

Lepidoptera have often been used as ecological indicators, and in forested habitats it is preferable to use moths because more abundant in forested environments (USHER & KEILLER, 1998; SUMMERVILLE *et al*., 2004, 2009), instead of diurnal Lepidoptera who typically live in ecotonal environments or meadows. Moreover, moths play a key role in several food chains, and their communities rapidly react to environmental changes in response to climate (WILSON *et al.*, 2005) and landscape attributes (SCALERCIO *et al.*, 2012) by modifying species composition. In this paper we studied diurnal and nocturnal Macrolepidoptera, usually studied separately because of the difference in the sampling methods, in order to depict the entire Macrolepidoptera community.

The aim of this study was to explore for the first time the lepidopterological fauna inhabiting black alder forests submitted to different levels of human impact. This forest is extremely vulnerable in Mediterranean areas as there the effects of ongoing climatic changes on hygrophilous ecosystems are expected to be stronger than in the rest of the European continent (EEA, 2008).

## Material and methods

### Study area

The Sila Massif shows the characters of a vast continental esplanade with soft ridges (CRISCI *et al.*, 2013), with an average altitude of 1200 m a.s.l. The highest reliefs are Mount Botte Donato (1928 m a.s.l) and Mount Gariglione (1764 m a.s.l). The climate is temperate-cold. The average annual temperature is 9ºC with strong temperature ranges, with peaks of over 30ºC in summer and -20ºC in winter. The rainfall is always high, between 1200-1600 mm/year, concentrated mainly between September and May, often snowy between December and March (CIANCIO, 1971). The survey areas (Figure 1) concerned the black alder forests chosen in different localities (Figure 2).

Diurnal Lepidoptera were sampled along transects contiguous to linear black alder forests only (Table 1), whilst nocturnal Lepidoptera were sampled in both linear and compact woodlots (Table 2).

**Table I.–** Description of diurnal butterflies sampling sites. The names of the locations, the alphanumeric codes assigned to each station, the geographical coordinates of the start and end point of the transect, the altitude and the type of the station are shown.

| Locality | Code | Transect coordinates | | Altitude (m. a.s.l.) | Type of station |
|---|---|---|---|---|---|
| | | Start point | End point | | |
| Fossiata | SL_On1_d | 39.395137ºN 16.598853ºE | 39.393383ºN 16.603232ºE | 1290 | Ecotone |
| Macchia di Pietro | SL_On4_d | 39.343335ºN 16.580412ºE | 39.342037ºN 16.582883ºE | 1290 | Ecotone |
| Righio | SL_On6_d | 39.315860ºN 16.527780ºE | 39.315986ºN 16.531438ºE | 1335 | Ecotone |
| Fallistro | SL_On8_d | 39.321291ºN 16.472482ºE | 39.323379ºN 16.476368ºE | 1380 | Ecotone |

**Table II.–** Description of moth sampling sites. The names of the locations, the alphanumeric codes assigned to each station, the geographical coordinates, the altitude and the type of the station are shown.

| Locality | Code | Transect coordinates | | Altitude (m. a.s.l.) | Type of the alder forest |
|---|---|---|---|---|---|
| Fossiata | SL_On1 | 39.3928ºN | 16.6068ºE | 1.299 | Linear |
| Sbanditi | SL_On2 | 39.3907ºN | 16.6040ºE | 1.324 | Compact |
| Epicate | SL_On3 | 39.3349ºN | 16.6146ºE | 1.250 | Compact |
| Macchia di Pietro | SL_On4 | 39.3439ºN | 16.5806ºE | 1.292 | Linear |
| Righio | SL_On5 | 39.3153ºN | 16.5273ºE | 1.341 | Compact |
| Righio | SL_On6 | 39.3182ºN | 16.5316ºE | 1.330 | Linear |
| Fallistro | SL_On7 | 39.3203ºN | 16.4695ºE | 1.397 | Compact |
| Fallistro | SL_On8 | 39.3232ºN | 16.4752ºE | 1.376 | Linear |

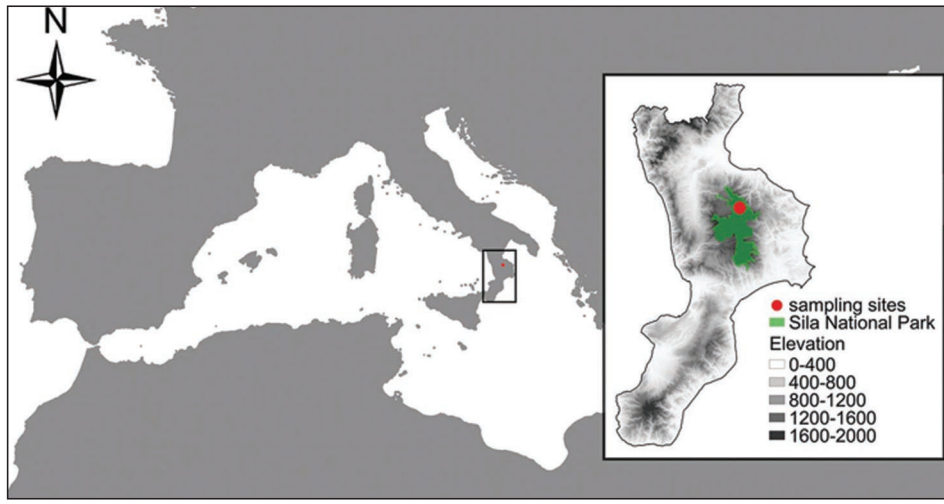


**Figure 1.–** Study area within the Sila National Park.

SAMPLING DESIGN

Moths were sampled monthly from March to November 2017 by using UV-Led light traps (further details in INFUSINO *et al*., 2017b). In each site we positioned one trap during nights favourable to the moth activity (i.e. low wind intensity, no full moon interference, no or very low rainfall, temperatures near the average of the period).

Diurnal Lepidoptera were sampled from April to September 2017, once every two weeks, for a total of 9 sampling sessions. The method used was the semi-quantitative transect (POLLARD & YATES, 1993) 500 meters long and 5 meters width, carried out in the central hours of the day, in conditions of clear sky and no wind.

Collected specimens were identified according to the available literature and preserved in the collection of the Council for Agricultural Research and Economics, Research Centre for Forestry and Wood (CREA-FL), Rende (Cosenza), Italy. Most difficult species were dissected for a correct identification. Nomenclature follow the most recent version of Fauna Europaea (KARSHOLT & NIEUKERKEN, 2013). Species are listed in alphabetical order within any family.

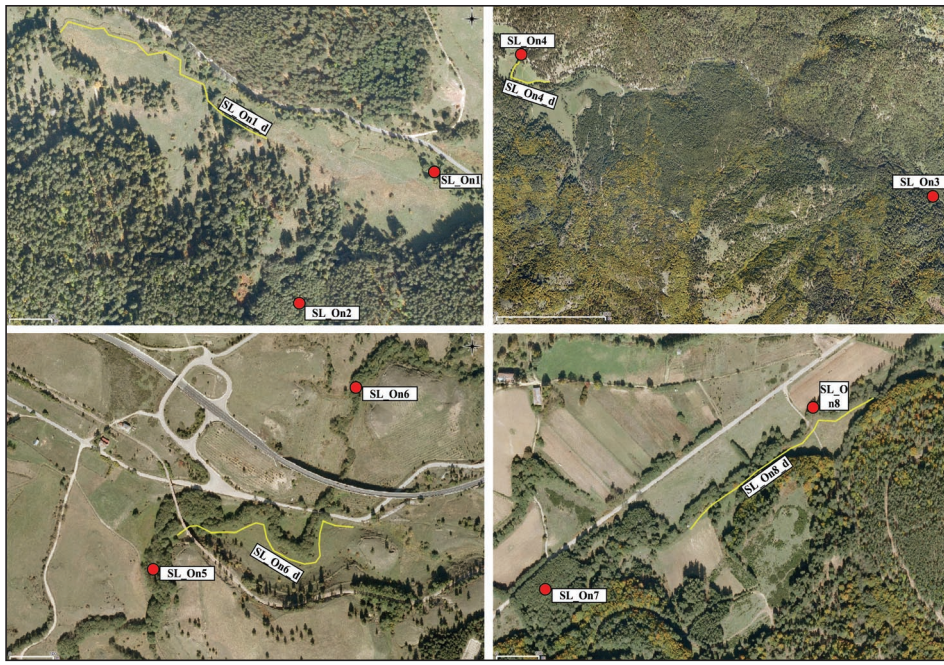


**Figure 2.–** Location of sampling sites. Yellow lines indicate transects for the monitoring of diurnal Lepidoptera. Red dots indicate the position of light traps for the monitoring of nocturnal Lepidoptera.

## Results

A total of 402 species and 9,140 individuals, belonging to 20 families, was collected of which 2,942 individuals and 117 species during diurnal samplings, 6,198 individuals and 306 species during nocturnal samplings. In the faunistic list reported after the reference list, for any species we reported the number of individuals collected in each site, the total abundance and the phenology indicated as the month of sampling in Roman numbers followed, only for diurnal Lepidoptera, by an Arabian number as exponent indicating the decade of sampling.

### Nocturnal Lepidoptera

Individual sites showed a richness varying from 86 species found in the site most impacted by human activities (SL_On4), to 157 found in the best preserved black alder forest (SL_On2) (Table 3). Many species (132) were collected at least in 4 sites showing a relative homogeneity of species assemblages, as confirmed by the low number (from 0 to 8) and the low abundance (no more than 8 individuals) of exclusive species (Table 3). The 3 most abundant species compose the 32.8% of the entire sample. The most abundant species was *Orthosia incerta* (Noctuidae) (n=332), followed by *Eilema lurideola* (Erebidae) (n=308) and *Eilema complana* (Erebidae) (n=246). Represented by more than 100 individuals were also *Hoplodrina octogenaria*, *Lycia hirtaria*, *Agrotis cinerea*, and *Luperina testacea*. These species, with *Pachetra sagittigera* (n=86), are present in all sampled sites. 28 species are needed to reach the 52.5% of individuals, whilst the remaining 279 species, with less than the 1% of occurrence each, represented the 47.5% of total abundance (Figure 3).

**Table III.–** Sampling results for moths in the investigated alder forests. The number of species (S), the number of exclusive species (Sexcl), the number of individuals (N), the dominant species and the incidence of dominance species (%) are reported for each stand.

| Site | S | Sexcl | N | Dominant species | Incidence of dominant species (%) |
|---|---|---|---|---|---|
| **SL_On1** | 131 | 13 | 663 | *Orthosia incerta*<br>*Scotopteryx chenopodiata*<br>*Agrotis cinerea* | 22 |
| **SL_On2** | 157 | 13 | 1179 | *Eilema lurideola*<br>*Eilema complana*<br>*Lycia hirtaria* | 22.4 |
| **SL_On3** | 152 | 18 | 1140 | *Eilema lurideola*<br>*Eilema complana*<br>*Epirrita christyi* | 29.2 |
| **SL_On4** | 86 | 0 | 359 | *Luperina testacea*<br>*Agrotis cinerea*<br>*Pachetra sagittigera* | 34.3 |
| **SL_On5** | 151 | 15 | 849 | *Orthosia incerta*<br>*Hoplodrina octogenaria*<br>*Mythimna impura* | 21.9 |
| **SL_On6** | 137 | 10 | 635 | *Orthosia incerta*<br>*Hoplodrina octogenaria*<br>*Hoplodrina blanda*<br>*Hoplodrina ambigua* | 20.6 |
| **SL_On7** | 147 | 11 | 704 | *Xestia triangulum*<br>*Orthosia incerta*<br>*Hoplodrina octogenaria* | 17.5 |
| **SL_On8** | 132 | 5 | 669 | *Luperina dumerilii*<br>*Hoplodrina octogenaria*<br>*Luperina testacea* | 19.1 |

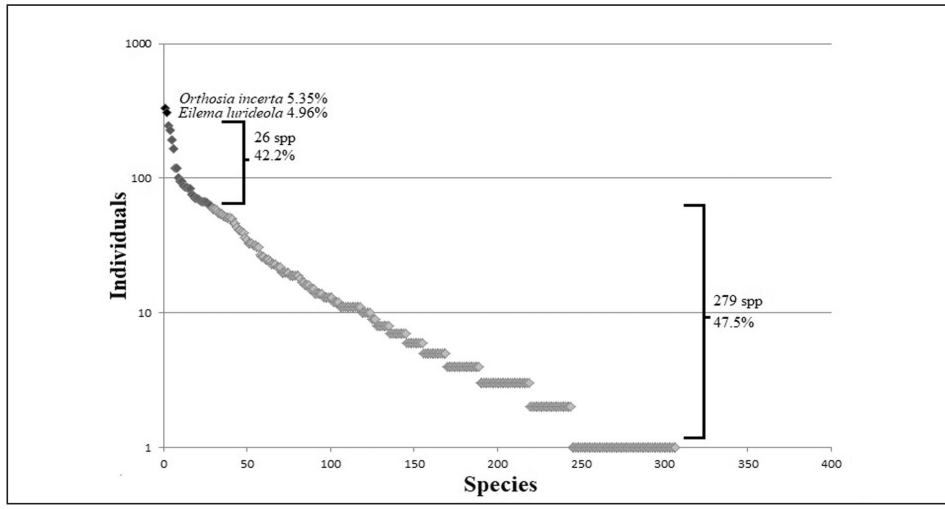


**Figure 3.–** Structure of nocturnal community sampled in Calabrian alder forest forests. The most abundant species and the proportion of the rest of community are reported.

Phenological changes in moth community were very significant as only few species were among the most abundant in more than one sample and none of them seemed to be bivoltine. At the beginning of the spring, species belonging to the genus *Orthosia*, mainly *O. incerta* and *O. gothica*, and *Endromis versicolora* characterized the species assemblage accompanied by *Lycia hirtaria* and *Cerastis rubricosa* as the season proceeded (Figure 4). Also few overwintering adults of *Dasypolia templi* were detected. Significant changes occurred in May, when few individuals of *L. hirtaria* are still on flight and the assemblage was dominated by *Agrotis cinerea*, *Pachetra sagittigera* and *Athetis pallustris*. From June to September four species, namely *Campaea margaritaria*, *Peribatodes rhomboidaria* and *Hypena proboscidalis*, were constantly among the most abundant, accompanied by different species as the season proceeded (Figure. 4). During the summer there was a strong turnover of dominant species, most of which trophically linked to herbaceous plants. Late-summer assemblage was mainly characterized by *Luperina* species, among which the most abundant was *L. dumerilii*, accompanied by *Tholera decimalis* and *Episema glaucina*. From October to November changes were less pronounced as *Agrochola macilenta* and *Epirrita christyi* were similarly abundant, whilst *Allophyes corsica* characterized the first period of the season and *Poecilocampa alpina* the last one.

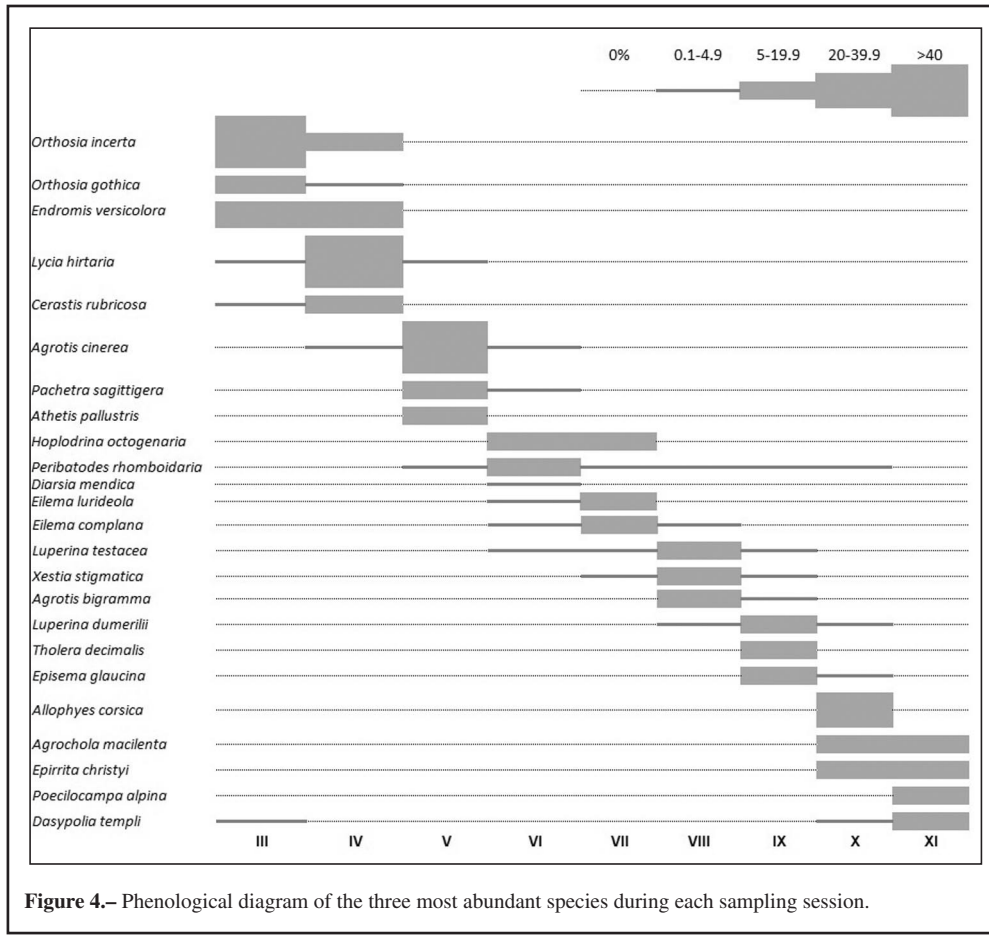


**Figure 4.–** Phenological diagram of the three most abundant species during each sampling session.

DIURNAL LEPIDOPTERA

Three sites showed a richness varying from 71 to 85 species. As for the moths, the site most impacted by human activities (SL_On4_d) showed the lowest richness (S=55) (Table 4). Many species (59) were collected at least in 3 sites confirming the homogeneity of species assemblages observed also in nocturnal Lepidoptera. Exclusive species are very few (from 6 to 9) and showed low abundance (no more than 8 individuals) (Table 4). The 8 most abundant species compose the 44.6% of the entire sample. The most abundant species was *Maniola jurtina* (Nymphalidae) (n=241), followed by *Polyommatus icarus* (Lycaenidae) (n=226). Further six species are represented by more than 120 individuals and all of these were observed at least in 3 sites. The species of conservation concern *Zerynthia cassandra* and *Parnassius mnemosyne* were absent in the overgrazed site SL_On4_d, and *Phengaris arion* was only recorded from SL_On1_d. The 75% of individuals belonged to 26 species only, whilst the remaining 91 species, with less than the 1% of occurrence each, represented the 25% of total abundance (Figure 5).

**Table IV.–** Sampling results for diurnal Lepidoptera in the investigated black alder forests. The number of species (S), the number of exclusive species (Sexcl), the number of individuals (N), the dominant species and the incidence of dominance species (%) are reported for each stand.

| Site | S | Sexcl | N | Dominant species | Incidence of dominant species (%) |
|---|---|---|---|---|---|
| **SL_On1_d** | 85 | 9 | 1211 | *Ochlodes sylvanus*<br>*Euclidia glyphica*<br>*Polyommatus icarus* | 24.4 |
| **SL_On4_d** | 55 | 8 | 393 | *Polyommatus icarus*<br>*Maniola jurtina*<br>*Pieris rapae* | 42.7 |
| **SL_On6_d** | 71 | 7 | 505 | *Maniola jurtina*<br>*Coenonympha pamphilus*<br>*Pieris rapae* | 26.9 |
| **SL_On8_d** | 75 | 6 | 833 | *Plebeius argus*<br>*Maniola jurtina*<br>*Pieris napi* | 33 |

During early spring most abundant species were *Pieris napi* and *Lycaena phlaeas*, the only ones collected during the whole study period, accompanied by *Erynnis tages* that typically flight in spring (Figure 6). From May to June the widespread *Coenonympha pamphilus* and *Polyommatus icarus* characterized the assemblages together with *Euclidia glyphica* and *Parnassius mnemosyne*. The beginning of the summer is characterized for the increased abundance of *Maniola jurtina* and *Plebejus argus*, accompanied by *Ochlodes venatus* and *Thymelicus lineola* as the season proceeded. In the middle of the summer, *Adscita alpina* and *Argynnis paphia* attained their maximum abundance followed by *Hipparchia hermione* and *Lycaena tityrus* in late summer.

## Discussion

To the best of our knowledge, this paper seems to be one of the few available in literature based on both diurnal and nocturnal Macrolepidoptera inhabiting a given habitat. The main obstacle to the monitoring of Lepidoptera with a such different behavior is the different sampling method that in most case determined great difficulties for recorders. Furthermore, nocturnal Lepidoptera can be identified in laboratory, but diurnal ones must be identified in the field with the exception of

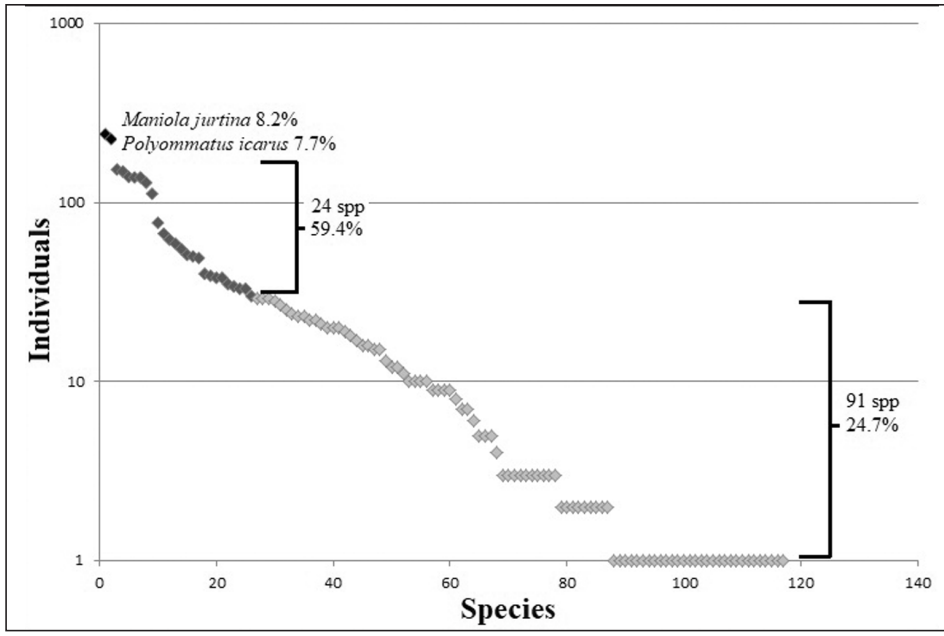


**Figure 5.–** Structure of diurnal community sampled in Calabrian alder forest forests. The most abundant species and the proportion of the rest of community are reported.

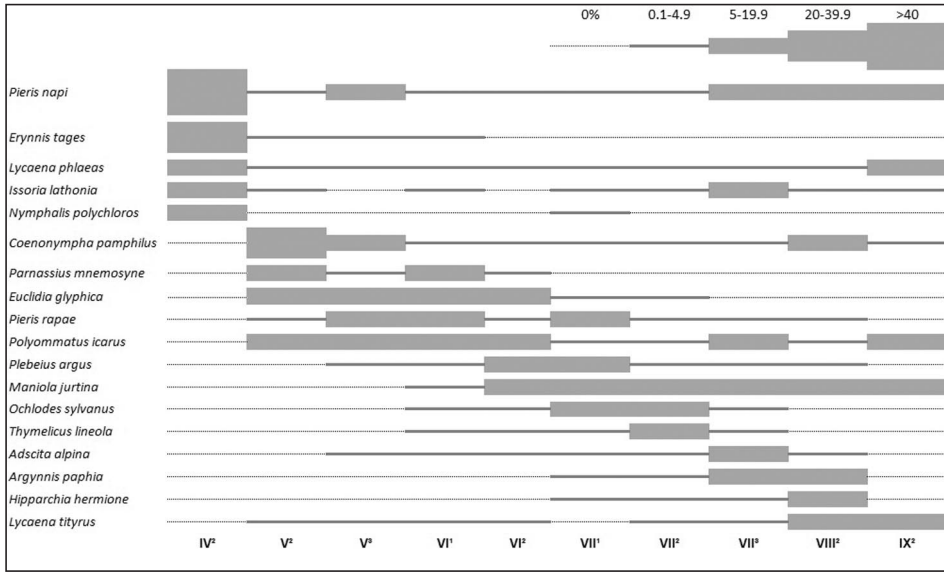


**Figure 6.–** Phenological diagram of the three most abundant diurnal Lepidoptera during each sampling session.

rare specimens that need the dissection of genitalia for their identification. The sampling design we applied allowed us to collect for the first time in Italy quantitative data on the populations of diurnal Heterocera such us Zygaenidae, and diurnal species of moths such as *Euclydia mi*, *E. glyphica*, or *Cleta filacearia*, among the others.

Quantitative data concerning the composition of Macroheterocera communities of deciduous trees are available in Calabria for *Acer sp*., *Fagus sylvatica*, and *Castanea sativa* Mill. forests (GRECO *et al.*, 2018a, 2019; INFUSINO & SCALERCIO, 2018). Main differences among these communities and those sampled in *Alnus glutinosa* (L.) Gaertn. forests concerned the relative abundance of shared species due to feeding preferences of their larvae and to the altitudinal gradient. For example, *Campaea margaritaria* was found as a common species in all deciduous forests as larvae are polyphagous on several trees (SKOU & SIHVONEN, 2015), but it was relatively less common in the alder forest as *Alnus sp.* is likely not among preferred foodplants of their larvae. On the other hand, the distribution of *Eilema lurideola*, less common in chestnut forests, seems to be influenced mainly by the altitudinal gradient.

As expected, moth communities sampled along linear forests inhabit a greater number of species having preferences for open habitat such as the abundant *Agrotis cinerea* and the very rare *Cleta filacearia*. Several forest species strongly reduced their abundance in linear-shaped forests, showing preferences for alder forest patches contiguous to other forest types. In definitive, the continuity of the forest cover seems to greatly contribute to reduce the border-effect on the composition of communities.

The absence of exclusive species among the most abundant ones doesn't reduce the importance of this forest type from a conservation point of view. In fact, we found there many species of great biogeographic and/or conservation interest known to be present in the Sila Massif such as *Dychagiris signifera*, *Acossus terebra*, *Plusidia cheiranthi*, and *Zygaena nevadensis* among Heterocera, and *Zerynthia cassandra*, *Parnassius mnemosyne*, *Brenthis ino* and *Phengaris arion* among Rhopalocera. Furthermore, the finding of *Eupithecia trisignaria* in alder forests only (GRECO *et al.*, 2018b) strongly improve its importance for the conservation of biodiversity at least at regional scale. This paper also contributed to the knowledge of the biodiversity inhabiting two Special Area of Conservation (SAC) included in the Natura 2000 network of Calabria region. In fact, two sampled sites (SL_On1, SL_On2) were within the SAC Cozzo del Principe (code: IT9310079) and one (SL_On3) was within the SAC Arnocampo (code: SL_On3). According to our results, these areas appear to be the best preserved from human impact as the former inhabits all the Rhopalocera included in the Habitat Directive that we found (*Zerynthia cassandra*, *Parnassius mnemosyne* and *Phengaris arion*) and the latter inhabits the only population of *Eupithecia trisignaria* found in southern Italy.

**Acknowledgements**

We are deeply indebted with Marco Infusino for his help during field trips. The work was financially supported by the Sila National Park (Project Il Barcoding delle farfalle nel Parco Nazionale della Sila: aree umide).

## BIBLIOGRAPHY

CIANCIO, O., 1971.– Sul clima e la distribuzione altimetrica della vegetazione forestale in Calabria.– *Annali dell'Istituto Sperimentale per la Selvicoltura*, **2**: 321-372.

CIANCIO, O., IOVINO, F., MENGUZZATO, G. & NICOLACI, A., 2005.– Analisi strutturale e modalità di gestione delle pinete di laricio in Sila.– *L'Italia Forestale e Montana*, **60**(4): 521-539.

CRISCI, G. M., MARABINI, S., PROCOPIO, F., VAI, G. B. & MUTO, F., 2013.– Gli straordinari aspetti geologici della Sila.– *Sinergie rapporti di ricerca*, **37**: 95-102.

EEA (EUROPEAN ENVIRONMENT AGENCY), 2008.– Impacts of Europe's changing climate - 2008 indicator-based assessment.– *EEA Report* n. 4/2008.

EFETOV, K. A., TARMANN, G. M. & TREMEWAN, W., G., 2011.– *Zygaena nevadensis* Rambur, 1858 (Lepidoptera: Zygaenidae, Zygaeninae) newly recorded from the southern tip of the Penisola Appenninica (Apennine Peninsula), Italy.– *Entomologist's Gazette*, **62**: 123-129.

GRECO, S., IENCO, A., INFUSINO, M., LEONETTI, F. L. & SCALERCIO, S., 2018b.– New records of moths elucidate the importance of forests as biodiversity hot-spots in Central Mediterranean landscapes (Lepidoptera).– *Redia*, **101**: 147-154.

GRECO, S., IENCO, A. SCALERCIO, S., 2019.– Abundance and diversity of macro-moths in an *acer*-dominated forest of the pollino national park, southern italy (Lepidoptera: Macroheterocera).– *Redia*, in press.

GRECO, S., INFUSINO, M., IENCO, A. & SCALERCIO, S., 2018a.– How different management regimes of chestnut forests affect diversity and abundance of moth communities?.– *Annals of Silvicultural Research*, **42**(2): 59-67.

HADDAD, M., 1999.– Corridor and distance effects on interpatch movements: a landscape experiment with butterflies.– *Ecological Applications*, **9**(2): 612-622.

INFUSINO, M. & SCALERCIO, S., 2015.– *Eupithecia conterminata* (Lienig, 1846) una specie silvicola alloctona nuova per la fauna italiana nel Parco Nazionale della Sila, area MAB UNESCO (Lepidoptera, Geometridae).– *Bollettino della Società Entomologica Italiana*, **147**(2): 85-88.

INFUSINO, M. & SCALERCIO, S., 2018.– The importance of beech forests as reservoirs of moth diversity in Mediterranean Basin (Lepidoptera).– *Fragmenta entomologica*, **50** (2): 161-169.

INFUSINO, M., BREHM, G., DI MARCO, C. & SCALERCIO, S., 2017b.– Assessing the efficiency of UV LEDsas light sources for sampling the diversity of macro-moths (Lepidoptera).– *European Journal of Entomology*, **114**: 25-33.

INFUSINO, M., LUZZI, G. & SCALERCIO, S., 2017a.– I macrolepidotteri notturni dell'Arboreto Sbanditi, Area MAB-UNESCO, Parco Nazionale della Sila (Calabria, Italia).– *Memorie della Società entomologica italiana*, **94**(1-2):137-153.

IOVINO, F. & MENGUZZATO, G., 2000.– *I rimboschimenti: storia e significato. Il caso della Calabria. Proceeding of the Seminar: Rimboschimenti e piantagioni nelle trasformazioni del paesaggio. Roma, 3 dicembre 1999*. International Association of Enviromental Design.

KARSHOLT, O. & NIEUKERKEN, E., J. VAN, 2013.– *Lepidoptera, Moths. Fauna Europaea* version 2.6. Available from http://www.fauna-eu.org

POLLARD, E. & YATES, T. J., 1993.– *Monitoring butterflies for ecology and conservation*: 274 pp. Chapman and Hall, London.

SCALERCIO, S., BRANDMAYR, P., IANNOTTA, N., PETACCHI, R. & BOCCACCIO, L., 2012.– Correlations between landscape attributes and ecological traits of Lepidoptera communities in olive groves.– *European Journal of Entomology*, **109**: 207-216.

SCALERCIO, S., INFUSINO, M. & HAUSMANN, A., 2016.– *Nothocasis rosariae* sp. n., a new sylvicolous, montane species from southern Europe (Lepidoptera: Geometridae, Larentiinae).– *Zootaxa*, **4161**(2): 177-192.

SCALERCIO, S., INFUSINO, M. & TUSCANO, J., 2008.– I macrolepidotteri notturni della faggeta di Monte Curcio, Sila Grande (Calabria, Italia meridionale)-(Lepidoptera).– *Quaderni della Stazione di Ecologia del Civico Museo di Storia Naturale di Ferrara*, **18**: 5-19, 2 figs.

SKOU, P., SIHVONEN, P. & ENNOMINAE, I., 2015.– *The Geometrid moths of Europe*, **5**: 657 pp. Brill, Leiden.

SUMMERVILLE, K. S., COURARD-HAURI, D. & DUPONT, M. M., 2009.– The legacy of timber harvest: do patterns of species dominance suggest recovery of lepidopteran communities in managed hardwood stands?.– *Forest Ecology and Management*, **259**: 8-13.

SUMMERVILLE, K. S., RITTER, L. M. & CRIST, T. O., 2004.– Forest moth taxa as indicators of lepidopteran richness and habitat disturbance: a preliminary assessment.– *Biological Conservation*, **116**: 9-18.

USHER, M. B. & KEILLER, S. W. J., 1998.– The Macrolepidoptera of farm woodlands: determinants of diversity and community structure.– *Biodiversity and Conservation*, **7**: 725-748.

WILSON, R. J., GUTIÉRREZ, D., GUTIÉRREZ, J., MARTÍNEZ, D., AGUDO, R. & MONSERRAT, V. J., 2005.– Changes to the elevational limits and extent of species ranges associated with climate change.– *Ecology Letter*, **8**: 1138-1146.

*F. L. L., S. G., A. I., S. S.
Council for Agricultural Research and Economics,
Research Centre for Forestry and Wood (CREA-FL)
Contrada Li Rocchi,
I-87036 Rende (CS)
ITALIA / *ITALY*
*E-mail: francescoluigi.leonetti@virgilio.it
https://orcid.org/0000-0003-2716-1317
E-mail: silviettagreco@gmail.com
https://orcid.org/0000-0003-3264-505X
E-mail: annamaria.ienco@gmail.com
https://orcid.org/0000-0001-8260-1528
E-mail: stefano.scalercio@crea.gov.it
https://orcid.org/0000-0002-5838-1315

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 17-VI-2019)
(Revisado y aceptado / *Revised and accepted* 4-VII-2019)
(Publicado / *Published* 30-IX-2019)

FAUNISTIC LIST OF NOCTURNAL LEPIDOPTERA

| Species | SLOn1n | SLOn2n | SLOn3n | SLOn4n | SLOn5n | SLOn6n | SLOn7n | SLOn8n | Total | Phenology |
|---|---|---|---|---|---|---|---|---|---|---|
| HEPIALIDAE | | | | | | | | | | |
| *Triodia sylvina* (Linnaeus, 1761) | 2 | - | - | - | - | - | 1 | - | 3 | VIII |
| LIMACODIDAE | - | - | - | - | - | - | - | - | - | |
| *Apoda limacodes* (Hufnagel, 1766) | - | 18 | 9 | - | - | - | 4 | - | 31 | VI-VII |
| COSSIDAE | | | | | | | | | | |
| *Acossus terebra* ([Denis & Schiffermüller], 1775) | 3 | - | - | - | - | - | - | - | 3 | VI |
| LASIOCAMPIDAE | | | | | | | | | | |
| *Poecilocampa alpina* (Frey & Wullschlegel, 1874) | 4 | - | 7 | - | 1 | 3 | - | 7 | 22 | XI |
| *Trichiura crataegi* (Linnaeus, 1758) | 1 | - | 2 | - | - | 2 | 1 | - | 6 | VIII-IX |
| *Lasiocampa trifolii* ([Denis & Schiffermüller], 1775) | 3 | - | - | - | 2 | - | - | 3 | 8 | VIII |
| *Lasiocampa quercus* (Linnaeus, 1758) | - | - | 1 | - | - | - | - | - | 1 | VII |
| *Macrothylacia rubi* (Linnaeus, 1758) | - | 1 | 1 | - | - | - | 1 | 1 | 4 | VI |
| *Dendrolimus pini* (Linnaeus, 1758) | 3 | 19 | 37 | 3 | - | 1 | 1 | - | 64 | VI-VII |
| ENDROMIDAE | | | | | | | | | | |
| *Endromis versicolora* (Linnaeus, 1758) | 3 | 6 | 7 | 3 | 5 | 1 | 8 | 6 | 39 | III-IV |
| SATURNIIDAE | | | | | | | | | | |
| *Saturnia pavoniella* (Scopoli, 1763) | - | - | - | - | - | - | 1 | 1 | 2 | III-IV |
| SPHINGIDAE | | | | | | | | | | |
| *Laothoe populi* (Linnaeus, 1758) | - | 1 | - | 1 | 1 | 1 | 2 | - | 6 | V-VI, VIII |
| *Sphinx pinastri* (Linnaeus, 1758) | - | - | 3 | 1 | - | - | - | - | 4 | V-VII |
| DREPANIDAE | | | | | | | | | | |
| *Thyatira batis* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | - | 1 | VI |
| *Tethea or* ([Denis & Schiffermüller], 1775) | 2 | - | 1 | - | - | - | - | 1 | 4 | VI-VII |
| *Drepana falcataria* (Linnaeus, 1758) | - | - | - | - | 1 | - | - | - | 1 | VII |
| GEOMETRIDAE | | | | | | | | | | |
| *Lomaspilis marginata* (Linnaeus, 1758) | 3 | 1 | 5 | - | - | 12 | 3 | 2 | 26 | VI-VIII |
| *Macaria liturata* (Clerck, 1759) | 1 | 2 | - | - | - | - | - | - | 3 | VI-VII |
| *Chiasmia clathrata* (Linnaeus, 1758) | - | - | - | - | 1 | - | - | 2 | 3 | VI |
| *Itame messapiaria* Sohn-Rethel, 1929 | 2 | 4 | - | - | - | - | - | - | 6 | VI-VII |
| *Pachycnemia hippocastanaria* (Hübner, [1799]) | - | - | - | - | 1 | - | - | - | 1 | VI |
| *Opisthograptis luteolata* (Linnaeus, 1758) | 3 | 4 | 6 | - | - | - | 1 | 1 | 15 | V-VIII |
| *Epione repandaria* (Hufnagel, 1767) | - | - | - | - | - | 1 | - | - | 1 | VII |
| *Ennomos quercinaria* (Hufnagel, 1767) | - | 7 | - | - | - | - | - | - | 7 | VII-VIII |
| *Selenia lunularia* (Hübner, 1788) | - | 4 | 2 | - | - | - | 5 | 2 | 13 | V-VI |
| *Crocallis elinguaria* (Linnaeus, 1758) | 2 | 3 | - | - | - | 2 | 1 | 3 | 11 | VIII-IX |
| *Colotois pennaria* (Linnaeus, 1761) | 1 | 5 | 1 | 1 | 4 | - | 7 | 1 | 20 | IX-XI |
| *Lycia hirtaria* (Clerck, 1759) | 3 | 58 | 68 | 4 | 31 | 6 | 19 | 4 | 193 | III-V |
| *Lycia florentina* (Stefanelli, 1882) | - | - | - | - | 1 | - | - | - | 1 | III |
| *Biston betularia* (Linnaeus, 1758) | - | 4 | 2 | - | - | 1 | 6 | - | 13 | VI-VIII |
| *Agriopis aurantiaria* (Hübner, [1799]) | - | 2 | - | - | - | - | - | 1 | 3 | XI |
| *Erannis defoliaria* (Clerck, 1759) | - | 2 | - | - | - | 2 | 1 | 6 | 11 | XI |
| *Nychiodes ragusaria* Millière, 1884 | - | - | - | - | 1 | 1 | - | - | 2 | VI |
| *Menophra abruptaria* (Thunberg, 1792) | - | 2 | - | - | - | - | - | - | 2 | IV, VIII |
| *Peribatodes rhomboidaria* ([Denis & Schiffermüller], 1775) | 28 | 21 | 13 | 3 | 11 | 12 | 18 | 13 | 119 | V-X |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Peribatodes secundaria* ([Denis & Schiffermüller], 1775) | - | 3 | - | - | - | - | - | - | 3 | VII |
| *Alcis repandata* (Linnaeus, 1758) | 7 | 44 | 10 | 1 | - | 1 | 6 | 1 | 70 | VI-VII |
| *Cleorodes lichenaria* (Hufnagel, 1767) | - | 2 | 1 | - | 2 | - | 1 | - | 6 | VI-VII |
| *Fagivorina arenaria* (Hufnagel, 1767) | - | 1 | 2 | - | - | - | - | - | 3 | VII |
| *Adactylotis contaminaria* (Hübner, [1813]) | - | - | 3 | - | - | - | - | - | 3 | VI-VII |
| *Tephronia sepiaria* (Hufnagel, 1767) | - | - | 5 | - | 1 | - | 1 | - | 7 | VII |
| *Cabera pusaria* (Linnaeus, 1758) | 17 | 23 | 7 | 1 | 15 | 3 | 8 | - | 74 | V-IX |
| *Campaea margaritata* (Linnaeus, 1767) | 2 | 15 | 15 | - | 5 | 7 | 7 | - | 51 | V-IX |
| *Hylaea mediterranea* (Linnaeus, 1758) | - | 2 | - | 2 | - | - | 1 | - | 5 | VI-VII, IX |
| *Pungeleria capreolaria* ([Denis & Schiffermüller], 1775) | - | 2 | - | - | - | - | - | - | 2 | IX |
| *Gnophos furvata* ([Denis & Schiffermüller], 1775) | - | 1 | 1 | 1 | - | - | 3 | - | 6 | VII-VIII |
| *Charissa obscurata* ([Denis & Schiffermüller], 1775) | - | 1 | - | 1 | 1 | - | - | 1 | 4 | VII-VIII |
| *Charissa onustaria* (Herrich-Schäffer, 1852) | - | 1 | 1 | 1 | - | - | - | - | 3 | V, IX |
| *Siona lineata* (Scopoli, 1763) | 2 | - | - | 1 | 1 | 6 | - | 4 | 14 | VI |
| *Perconia strigillaria* (Hübner, 1787) | 4 | - | - | 1 | 3 | 1 | 1 | 1 | 11 | V |
| *Pseudoterpna coronillaria* (Hübner, [1817]) | 5 | 6 | 4 | 2 | 13 | 10 | 12 | 24 | 76 | VI-VIII |
| *Geometra papilionaria* (Linnaeus, 1758) | - | 3 | - | - | 1 | - | - | 1 | 5 | VI-VIII |
| *Comibaena bajularia* ([Denis & Schiffermüller], 1775) | - | 1 | 16 | 2 | - | - | - | - | 19 | VI |
| *Antonechloris smaragdaria* (Fabricius, 1787) | - | - | - | - | - | 2 | 2 | 3 | 7 | VI |
| *Thalera fimbrialis* (Scopoli, 1763) | - | - | - | - | 2 | 5 | - | - | 7 | VI-VII |
| *Cyclophora puppillaria* (Hübner, [1799]) | 1 | - | 2 | - | - | 1 | - | - | 4 | VI |
| *Cyclophora linearia* (Hübner, 1799) | - | 5 | 1 | - | - | - | 4 | - | 10 | VI-VII |
| *Scopula tessellaria* (Boisduval, 1840) | - | - | - | - | - | 2 | - | - | 2 | VI |
| *Scopula ornata* (Scopoli, 1763) | - | - | 1 | - | - | - | - | - | 1 | VII |
| *Scopula marginepunctata* (Goeze, 1781) | 1 | 2 | 1 | 1 | 1 | - | - | - | 6 | VI |
| *Scopula imitaria* (Hübner, [1799]) | - | 2 | - | - | 1 | - | - | - | 3 | VI |
| *Idaea mutilata* (Staudinger, 1876) | - | - | 2 | 15 | 2 | - | - | - | 19 | VI |
| *Idaea ochrata* (Scopoli, 1763) | - | - | - | - | - | 1 | - | 3 | 4 | VI,VII |
| *Idaea fuscovenosa* (Goeze, 1781) | - | - | 5 | 1 | - | - | - | 2 | 8 | VI-VII |
| *Idaea humiliata* (Hufnagel, 1767) | 2 | 1 | - | 1 | - | 1 | - | 7 | 12 | VI |
| *Idaea dimidiata* (Hufnagel, 1767) | - | 2 | - | - | - | - | 1 | - | 3 | VII |
| *Idaea subsericeata* (Haworth, 1809) | - | - | 1 | - | - | - | - | - | 1 | VII |
| *Idaea infirmaria* (Rambur, 1833) | - | - | - | - | - | - | 1 | - | 1 | VI |
| *Idaea trigeminata* (Haworth, 1809) | - | - | 21 | 1 | 1 | - | - | - | 23 | VI |
| *Idaea aversata* (Linnaeus, 1758) | 2 | 22 | 9 | 1 | 1 | 2 | 4 | - | 41 | VI-VII |
| *Idaea rubraria* (Staudinger, 1901) | - | - | - | - | 1 | - | - | - | 1 | VIII |
| *Idaea straminata* (Borkhausen, 1794) | - | - | - | 2 | 2 | - | - | - | 4 | VI |
| *Idaea deversaria* (Herrich-Schäffer, 1847) | 5 | 7 | 14 | 3 | 29 | 7 | 5 | 1 | 71 | VI-VII |
| *Rhodostrophia vibicaria* (Clerck, 1759) | - | 1 | 1 | 7 | 4 | 2 | - | 1 | 16 | VI-VII |
| *Rhodostrophia calabra* (Petagna, 1786) | - | 1 | - | 3 | 2 | 1 | - | - | 7 | VI |
| *Rhodometra sacraria* (Linnaeus, 1767) | 2 | 1 | - | - | - | - | - | 1 | 4 | VII-IX |
| *Scotopteryx angularia* (de Villers, 1789) | - | 7 | 6 | - | - | - | - | - | 13 | VI-VII |
| *Scotopteryx bipunctaria* ([Denis & Schiffermüller], 1775) | - | - | - | - | 1 | - | - | - | 1 | VII |
| *Scotopteryx chenopodiata* (Linnaeus, 1758) | 38 | 5 | - | - | 3 | 2 | 3 | 2 | 53 | VII-VIII |
| *Scotopteryx luridata* (Hufnagel, 1767) | 2 | 1 | 5 | - | 1 | 4 | 4 | 2 | 19 | VI |
| *Xanthorhoe montanata* ([Denis & Schiffermüller], 1775) | 5 | 28 | 5 | 1 | 9 | 4 | 6 | 2 | 60 | V-VI |
| *Xanthorhoe fluctuata* (Linnaeus, 1758) | - | 1 | 1 | 1 | - | - | - | - | 3 | V |
| *Xanthorhoe vidanoi* Parenzan & Hausmann, 1994 | - | - | - | - | - | - | 1 | - | 1 | V |
| *Catarhoe cuculata* (Hufnagel, 1767) | - | - | 1 | - | - | - | - | 4 | 5 | VI |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Epirrhoe alternata* (Müller, 1764) | 21 | 18 | 3 | 2 | 20 | 15 | 2 | 7 | 88 | V-IX |
| *Epirrhoe galiata* ([Denis & Schiffermüller], 1775) | 2 | 1 | 3 | 1 | - | 2 | 1 | 4 | 14 | VI, VIII-IX |
| *Camptogramma bilineata* (Linnaeus, 1758) | - | 3 | - | - | - | - | - | - | 3 | VII |
| *Larentia clavaria* (Haworth, 1809) | 1 | 4 | - | - | 2 | 1 | 3 | - | 11 | X |
| *Earophila badiata* ([Denis & Schiffermüller], 1775) | - | - | - | - | 2 | - | 1 | 1 | 4 | III-IV |
| *Cosmorhoe ocellata* (Linnaeus, 1758) | 3 | 3 | 12 | - | 2 | 5 | - | 2 | 27 | V-IX |
| *Eulithis pyraliata* ([Denis & Schiffermüller], 1775) | 3 | 6 | 3 | 1 | 1 | 2 | - | - | 16 | VI-VII |
| *Ecliptopera silaceata* ([Denis & Schiffermüller], 1775) | 1 | 2 | - | - | - | - | - | - | 3 | VI-VIII |
| *Chloroclysta siterata* (Hufnagel, 1767) | - | 1 | - | - | - | - | - | 1 | 2 | IV,X |
| *Chloroclysta truncata* (Hufnagel, 1767) | - | 38 | 25 | - | 2 | - | 1 | - | 66 | VI-VIII |
| *Pennithera firmata* (Hübner, [1822]) | - | 9 | 7 | - | - | - | - | 1 | 17 | VIII-X |
| *Thera britannica* (Turner, 1925) | - | 2 | - | - | - | - | 1 | - | 3 | VI |
| *Colostygia sericeata* (Schwingenschuss, 1926) | - | - | 2 | 2 | - | - | - | - | 4 | X-XI |
| *Colostygia pectinataria* (Knoch, 1781) | 8 | 22 | 5 | - | 9 | 3 | 2 | 3 | 52 | VI-VII |
| *Hydriomena furcata* (Thunberg, 1784) | 1 | 4 | 5 | - | 1 | 4 | - | - | 15 | V,VII |
| *Hydriomena sanfilensis* (Stauder, 1915) | 15 | 25 | 9 | 4 | 1 | 1 | 3 | 1 | 59 | V-VI |
| *Epirrita christyi* (Allen, 1906) | 4 | 20 | 3 | 2 | 4 | 2 | 8 | 7 | 50 | X-XI |
| *Operophtera brumata* (Linnaeus, 1758) | - | - | - | - | 1 | - | - | - | 1 | XI |
| *Operophtera fagata* (Scharfenberg, 1805) | 1 | - | - | 1 | - | 1 | 1 | 4 | 8 | XI |
| *Solitanea mariae* (Stauder, 1921) | 6 | 14 | 2 | 2 | 6 | 4 | 13 | 4 | 51 | V-VIII |
| *Mesotype didymata* (Linnaeus, 1758) | 2 | - | - | - | - | - | 1 | - | 3 | VII |
| *Mesotype parallelolineata* (Retzius, 1783) | - | - | 5 | - | - | - | - | - | 5 | IX |
| *Eupithecia tenuiata* (Hübner, [1813]) | 1 | - | - | - | 1 | - | - | - | 2 | VII |
| *Eupithecia pyreneata* Mabille, 1871 | - | - | - | - | - | 1 | - | 2 | 3 | VI |
| *Eupithecia insigniata* (Hübner, 1790) | - | 1 | - | 1 | - | - | - | - | 2 | V |
| *Eupithecia venosata* (Fabricius, 1787) | - | - | 1 | - | 5 | - | - | - | 6 | V-VI |
| *Eupithecia trisignaria* Herrich-Schäffer, 1848 | - | - | 2 | - | - | - | - | - | 2 | VI |
| *Eupithecia vulgata* (Haworth, 1809) | 2 | 15 | - | - | 6 | 1 | - | 1 | 25 | V-VI |
| *Eupithecia subfuscata* (Haworth, 1809) | - | 12 | 3 | - | - | - | - | 2 | 17 | VI |
| *Eupithecia icterata* (Villers, 1789) | - | - | 1 | - | 1 | - | - | 2 | 4 | VII-VIII |
| *Eupithecia semigraphata* Bruand, 1850 | 2 | 1 | - | - | - | - | - | 2 | 5 | VII-VIII |
| *Eupithecia millefoliata* Rössler, 1866 | - | - | - | - | - | - | - | 2 | 2 | VI |
| *Eupithecia gemellata* Herrich-Schäffer, 1861 | - | - | 1 | - | - | - | - | - | 1 | VI |
| *Eupithecia innotata* (Hufnagel, 1767) | - | 1 | - | - | - | - | - | - | 1 | IV |
| *Eupithecia dodoneata* Guenée, 1857 | - | - | 1 | - | - | - | - | - | 1 | V |
| *Gymnoscelis rufifasciata* (Haworth, 1809) | 22 | 15 | 22 | - | 1 | 1 | 5 | 1 | 67 | VI-VII |
| *Chesias rufata* (Fabricius, 1775) | - | 1 | 1 | 1 | - | - | - | - | 3 | III-IV |
| *Aplocera plagiata* (Linnaeus, 1758) | 1 | - | 2 | - | 1 | 2 | 2 | 2 | 10 | VI,VIII-IX |
| *Aplocera praeformata* (Hübner, [1826]) | 1 | 2 | - | - | - | 1 | 3 | - | 7 | VI-VII |
| *Nothocasis rosariae* Scalercio, Infusino & Hausmann, 2016 | - | - | - | - | - | - | - | 1 | 1 | X |
| NOTODONTIDAE | | | | | | | | | | |
| *Thaumetopoea pityocampa* ([Denis & Schiffermüller], 1775) | 1 | 4 | 1 | 2 | 1 | - | 2 | - | 11 | VI-VIII |
| *Clostera pigra* (Hufnagel, 1766) | - | - | - | - | - | - | 1 | - | 1 | VII |
| *Furcula furcula* (Clerck, 1759) | - | 1 | - | - | - | - | - | - | 1 | VI |
| *Notodonta dromedarius* (Linnaeus, 1758) | - | 6 | 13 | - | 5 | - | 8 | - | 32 | V-VIII |
| *Notodonta torva* (Hübner, [1803]) | - | - | - | - | - | - | - | - | - | |
| *Notodonta tritophus* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | - | 1 | - | 1 | VII |
| *Drymonia querna* ([Denis & Schiffermüller], 1775) | - | - | 8 | - | - | - | - | - | 8 | VI-VII |
| *Pheosia tremula* (Clerck, 1759) | 1 | - | - | - | - | - | 5 | 1 | 7 | V, VII-VIII |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Pterostoma palpina* (Clerck, 1759) | - | 5 | - | - | 2 | 4 | 1 | - | 12 | VI-VIII |
| *Ptilophora variabilis* (Hartig, 1968) | 1 | - | 2 | - | - | 1 | - | - | 4 | XI |
| *Ptilodon capucina* (Linnaeus, 1758) | - | 1 | - | - | - | - | - | - | 1 | VII |
| *Ptilodon cucullina* ([Denis & Schiffermüller], 1775) | - | 1 | - | - | - | - | - | - | 1 | VI |
| *Phalera bucephala* (Linnaeus, 1758) | 1 | - | 2 | - | - | - | - | - | 3 | VI-VII |
| *Stauropus fagi* (Linnaeus, 1758) | - | 4 | 5 | - | - | - | 2 | - | 11 | V-VI |
| *Spatalia argentina* ([Denis & Schiffermüller], 1775) | - | - | 1 | - | - | - | - | - | 1 | VI |
| NOCTUIDAE | | | | | | | | | | |
| *Acronicta megacephala* ([Denis & Schiffermüller], 1775) | 2 | - | - | - | - | - | - | - | 2 | VI |
| *Acronicta rumicis* (Linnaeus, 1758) | 1 | 1 | 2 | - | 2 | - | 3 | - | 9 | VI |
| *Diachrysia chrysitis* (Linnaeus, 1758) | 1 | 3 | 1 | - | - | - | 1 | 2 | 8 | VI-VII |
| *Macdunnoughia confusa* (Stephens, 1850) | - | - | - | - | - | - | 3 | - | 3 | VI-VIII |
| *Autographa gamma* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | - | 1 | VIII |
| *Autographa pulchrina* (Haworth, 1809) | 1 | 3 | 3 | - | - | 1 | 11 | 1 | 20 | VI-VII |
| *Plusidia cheiranthi* (Tauscher, 1809) | - | 1 | - | - | 1 | 1 | - | - | 3 | VI |
| *Eublemma viridula* (Guenée, 1841) | - | - | - | - | - | - | 1 | 1 | 2 | VI |
| *Teinoptera olivina* (Herrich-Schäffer, 1852) | - | - | - | - | - | 1 | - | - | 1 | VI |
| *Amphipyra pyramidea* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | - | 1 | VII |
| *Amphipyra tragopoginis* (Clerck, 1759) | - | - | 1 | - | - | - | - | - | 1 | VI |
| *Diloba caeruleocephala* (Linnaeus, 1758) | 3 | 2 | - | 1 | 1 | - | 3 | - | 10 | X |
| *Heliothis peltigera* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | - | 1 | - | 1 | VII |
| *Helicoverpa armigera* (Hübner, [1808]) | - | - | - | - | - | - | 4 | - | 4 | VII |
| *Stilbia faillae* Püngeler, 1918 | 2 | 5 | 4 | 1 | 3 | 4 | 1 | 2 | 22 | VII-IX |
| *Hoplodrina octogenaria* (Goeze, 1781) | 4 | 13 | 12 | 6 | 74 | 43 | 37 | 39 | 228 | VI-VII |
| *Hoplodrina blanda* ([Denis & Schiffermüller], 1775) | 1 | - | - | - | 22 | 22 | 8 | 14 | 67 | VI-VIII |
| *Hoplodrina superstes* (Ochsenheimer, 1816) | 1 | - | - | - | 2 | - | - | - | 3 | VII-VIII |
| *Hoplodrina ambigua* ([Denis & Schiffermüller], 1775) | - | - | - | 2 | 18 | 22 | - | 4 | 46 | V-X |
| *Charanyca trigrammica* (Hufnagel, 1766) | - | 3 | 2 | - | 2 | 3 | - | - | 10 | V-VI |
| *Atypha pulmonaris* (Esper, 1790) | - | - | 5 | - | - | 1 | 3 | 1 | 10 | VII |
| *Spodoptera exigua* (Hübner, [1808]) | - | - | - | - | - | - | 1 | 2 | 3 | VI-VII |
| *Charanyca apfelbecki* (Rebel, 1901) | 1 | 5 | 2 | 1 | - | 1 | 1 | 2 | 13 | VI |
| *Athetis pallustris* (Hübner, [1808]) | 18 | - | - | - | - | 7 | - | - | 25 | V |
| *Charanyca ferruginea* (Esper, 1785) | 7 | 13 | 9 | - | 2 | 7 | 14 | 3 | 55 | V-VII |
| *Thalpophila matura* (Hufnagel, 1766) | 1 | - | - | - | 1 | 3 | 1 | 2 | 8 | VIII |
| *Euplexia lucipara* (Linnaeus, 1758) | - | 4 | - | - | 1 | - | - | - | 5 | VI-IX |
| *Phlogophora meticulosa* (Linnaeus, 1758) | - | 1 | - | - | - | - | - | - | 1 | IX |
| *Chloantha hyperici* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | 1 | - | - | 1 | IX |
| *Apterogenum ypsillon* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | 2 | - | - | 2 | VI,VIII |
| *Cosmia trapezina* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | 2 | 3 | VIII |
| *Xanthia togata* (Esper, 1788) | - | - | - | - | 1 | 1 | 1 | 1 | 4 | IX-X |
| *Tiliacea aurago* ([Denis & Schiffermüller], 1775) | - | 4 | 1 | - | 1 | 1 | 1 | - | 8 | IX-X |
| *Xanthia icteritia* (Hufnagel, 1766) | - | - | - | - | 2 | 1 | 2 | - | 5 | IX |
| *Agrochola lychnidis* ([Denis & Schiffermüller], 1775) | - | - | - | - | 1 | - | - | - | 1 | X |
| *Agrochola circellaris* (Hufnagel, 1766) | 1 | - | - | - | - | - | - | - | 1 | X |
| *Agrochola lota* (Clerck, 1759) | - | - | - | - | 6 | 3 | 1 | 1 | 11 | X-XI |
| *Agrochola macilenta* (Hübner, [1809]) | - | - | 1 | - | 11 | 9 | 4 | 21 | 46 | X-XI |
| *Agrochola helvola* (Linnaeus, 1758) | - | - | - | - | 1 | - | - | - | 1 | X |
| *Agrochola pistacinoides* (Aubuisson, 1867) | - | - | - | - | 1 | 1 | - | - | 2 | IX |
| *Agrochola litura* (Linnaeus, 1758) | - | - | 1 | 1 | 15 | 3 | - | - | 20 | IX-X |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Conistra vaccinii* (Linnaeus, 1761) | 1 | 6 | 6 | - | - | 5 | 7 | 11 | 36 | III-IV, X-XI |
| *Conistra torrida* (Lederer, 1857) | 1 | - | 1 | 2 | 1 | 2 | 1 | 3 | 11 | X-XI |
| *Conistra rubiginea* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | - | 1 | 1 | 2 | III |
| *Conistra ragusae* (Failla-Tedaldi, 1890) | - | - | - | - | 1 | - | - | - | 1 | XI |
| *Episema glaucina* (Esper, 1789) | 2 | - | 4 | 23 | 11 | 8 | 4 | 2 | 54 | IX-X |
| *Cleoceris scoriacea* (Esper, 1789) | - | - | 4 | - | 5 | - | 2 | 1 | 12 | IX |
| *Dasypolia templi* (Thunberg, 1792) | 3 | - | 1 | 2 | 7 | 2 | 3 | 1 | 19 | III, X-XI |
| *Aporophyla lueneburgensis* (Freyer, 1848) | - | - | - | - | 7 | 4 | - | - | 11 | X |
| *Aporophyla nigra* (Haworth, 1809) | - | - | - | - | 2 | - | - | - | 2 | X |
| *Xylena exsoleta* (Linnaeus, 1758) | - | - | - | - | - | - | 1 | - | 1 | XI |
| *Allophyes corsica* (Spuler, 1905) | 10 | 18 | 9 | 2 | 8 | 3 | 13 | 5 | 68 | X |
| *Valeria oleagina* ([Denis & Schiffermüller], 1775) | - | - | - | - | 1 | - | 1 | - | 2 | III |
| *Dryobotodes eremita* (Fabricius, 1775) | 1 | - | - | - | - | - | - | - | 1 | VI |
| *Antitype chi* (Linnaeus, 1758) | - | - | 1 | - | 2 | - | 1 | 1 | 5 | IX-X |
| *Ammoconia caecimacula* ([Denis & Schiffermüller], 1775) | - | - | - | - | 7 | 7 | - | - | 14 | X |
| *Polymixis polymita* (Linnaeus, 1761) | 2 | - | 3 | 1 | 3 | 1 | - | 1 | 11 | VIII-IX |
| *Mniotype solieri* (Boisduval, 1840) | - | - | 1 | - | - | - | - | - | 1 | VIII |
| *Apamea monoglypha* (Hufnagel, 1766) | - | 2 | 8 | 7 | 6 | 6 | 3 | 3 | 35 | VI-VIII |
| *Apamea syriaca* (Turati, 1909) | 2 | 3 | 7 | - | 4 | 3 | 2 | 1 | 22 | VI |
| *Apamea crenata* (Hufnagel, 1766) | - | 1 | 5 | - | 1 | - | 4 | - | 11 | VI |
| *Apamea epomidion* (Haworth, 1809) | - | 3 | 1 | - | - | - | 1 | - | 5 | VI-VII |
| *Apamea illyria* Freyer, 1846 | - | - | - | - | - | - | 1 | - | 1 | VI |
| *Apamea sordens* (Hufnagel, 1766) | - | - | - | - | - | 1 | - | 2 | 3 | VI |
| *Apamea ferrago* (Eversmann, 1837) | - | - | 3 | - | - | - | - | - | 3 | VII |
| *Oligia strigilis* (Linnaeus, 1758) | 4 | 4 | - | - | 4 | 1 | 6 | 4 | 23 | VI-VII |
| *Oligia versicolor* (Borkhausen, 1792) | 29 | 14 | 4 | 1 | 5 | 1 | 9 | 8 | 71 | VI-VIII |
| *Oligia latruncula* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | 1 | - | 3 | 4 | VI |
| *Mesoligia furuncula* ([Denis & Schiffermüller], 1775) | 2 | - | - | - | 6 | - | - | 3 | 11 | VII-VIII |
| *Litoligia literosa* (Haworth, 1809) | - | 1 | - | 3 | 3 | 1 | 3 | 2 | 13 | VII |
| *Mesapamea secalis* (Linnaeus, 1758) | - | - | - | - | 5 | 1 | 1 | 16 | 23 | VII-VIII |
| *Mesapamea secalella* (Esper, 1788) | - | 1 | - | - | - | - | - | - | 1 | VI |
| *Luperina testacea* ([Denis & Schiffermüller], 1775) | 2 | 2 | 7 | 49 | 6 | 10 | 5 | 38 | 119 | VI-IX |
| *Luperina rubella* (Duponchel, 1835) | - | - | - | 3 | 5 | 7 | 1 | 3 | 19 | VIII-IX |
| *Luperina dumerilii* (Duponchel, 1826) | 1 | - | 1 | 1 | 22 | 6 | 3 | 52 | 86 | VIII-X |
| *Phragmatiphila nexa* (Hübner, [1808]) | - | 1 | - | - | - | - | - | - | 1 | X |
| *Lacanobia w-latinum* (Hufnagel, 1766) | - | - | 1 | - | 1 | - | - | 1 | 3 | V-VI |
| *Lacanobia oleracea* (Linnaeus, 1758) | - | 2 | 1 | - | 1 | 1 | 1 | 1 | 7 | VI-VII |
| *Lacanobia contigua* ([Denis & Schiffermüller], 1775) | 1 | 1 | - | - | - | - | - | - | 2 | VI |
| *Hecatera bicolorata* (Hufnagel, 1766) | - | - | - | - | - | 1 | - | - | 1 | VI |
| *Hadena bicruris* (Hufnagel, 1766) | - | 1 | - | - | - | - | 1 | - | 2 | VI, VIII |
| *Hadena literata* (Fischer-Waldheim, 1840) | - | - | - | - | - | - | - | - | - | |
| *Hadena luteago* ([Denis & Schiffermüller], 1775) | - | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 9 | V-VI |
| *Hadena compta* ([Denis & Schiffermüller], 1775) | - | - | - | - | 1 | - | - | - | 1 | VI |
| *Hadena confusa* (Hufnagel, 1766) | 2 | - | - | 1 | 1 | - | - | - | 4 | VI |
| *Hadena albimacula* (Borkhausen, 1792) | - | - | - | - | - | 1 | - | - | 1 | X |
| *Hadena magnolii* (Boisduval, 1829) | - | 1 | - | 2 | 1 | 1 | 1 | - | 6 | V-VI |
| *Hadena filograna* (Esper, 1788) | - | - | - | - | 3 | 2 | 1 | 1 | 7 | VI |
| *Hadena perplexa* ([Denis & Schiffermüller], 1775) | 1 | - | - | - | - | - | - | - | 1 | VI |
| *Polia nebulosa* (Hufnagel, 1766) | 7 | 5 | 11 | - | 4 | 3 | 3 | - | 33 | VI-VII |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Mythimna conigera* ([Denis & Schiffermüller], 1775) | 7 | 7 | 2 | 2 | 3 | 6 | 11 | 13 | 51 | VI-VIII |
| *Mythimna ferrago* (Fabricius, 1787) | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 | 16 | VI-VIII |
| *Mythimna albipuncta* ([Denis & Schiffermüller], 1775) | - | - | 2 | - | 10 | 11 | 5 | 5 | 33 | VI-IX |
| *Mythimna vitellina* (Hübner, [1808]) | - | - | - | - | - | | - | 1 | 1 | VIII |
| *Mythimna impura* (Hübner, [1808]) | 28 | 9 | - | - | 36 | 7 | 7 | 8 | 95 | VI-VIII |
| *Mythimna l-album* (Linnaeus, 1767) | 1 | 1 | 1 | - | 1 | 3 | - | 3 | 10 | V-VI, IX-X |
| *Mythimna sicula* (Treitschke, 1835) | | | | | | 1 | | | 1 | VI |
| *Mythimna unipuncta* (Haworth, 1809) | - | - | - | - | 1 | - | - | - | 1 | IX |
| *Orthosia incerta* (Hufnagel, 1766) | 73 | 44 | 17 | 5 | 76 | 46 | 42 | 29 | 332 | III-IV |
| *Orthosia gothica* (Linnaeus, 1758) | 9 | 2 | - | - | 4 | 8 | 2 | 8 | 33 | III-IV |
| *Orthosia populeti* (Fabricius, 1775) | - | 1 | - | - | - | 1 | 3 | - | 5 | III |
| *Orthosia cerasi* (Fabricius, 1775) | 13 | 1 | 1 | - | - | 1 | 1 | 3 | 20 | III-IV |
| *Panolis flammea* ([Denis & Schiffermüller], 1775) | - | - | 1 | 1 | - | - | - | - | 2 | IV |
| *Tholera decimalis* (Poda, 1761) | 1 | 2 | - | 5 | 24 | 14 | 6 | 7 | 59 | IX |
| *Pachetra sagittigera* (Hufnagel, 1766) | 10 | 8 | 7 | 27 | 4 | 9 | 10 | 11 | 86 | V-VI |
| *Lasionycta proxima* (Hübner, [1809]) | 2 | - | - | - | - | - | 1 | - | 3 | VI,IX |
| *Axylia putris* (Linnaeus, 1761) | - | - | - | - | - | - | - | - | - | |
| *Ochropleura plecta* (Linnaeus, 1761) | 1 | 1 | - | - | - | - | - | - | 2 | VI,VIII |
| *Ochropleura leucogaster* (Freyer, 1831) | 1 | 2 | 1 | - | 1 | - | - | - | 5 | VI |
| *Diarsia mendica* (Fabricius, 1775) | 7 | 33 | 16 | - | 1 | 7 | 15 | 5 | 84 | VI |
| *Noctua pronuba* Linnaeus, 1758 | 2 | 2 | 7 | - | 1 | 2 | 1 | - | 15 | VI,VIII-X |
| *Noctua interposita* (Hübner, 1790) | 2 | 2 | 2 | - | 7 | 2 | 3 | 1 | 19 | VI-IX |
| *Noctua comes* Hübner, [1813] | 1 | - | - | - | - | - | - | - | 1 | VIII |
| *Noctua fimbriata* (Schreber, 1759) | 1 | 11 | 36 | 1 | 4 | 1 | 12 | 1 | 67 | VI-IX |
| *Noctua tirrenica* Biebinger, Speidel & Hanigk, 1983 | - | 5 | 26 | - | - | 1 | - | - | 32 | VI-VII,IX |
| *Noctua janthina* ([Denis & Schiffermüller], 1775) | - | - | 4 | - | - | 1 | - | - | 5 | VI,VIII-IX |
| *Noctua janthe* (Borkhausen, 1792) | - | - | 1 | - | - | - | - | - | 1 | VII |
| *Noctua interjecta* Hübner, [1803] | 1 | - | - | - | - | - | - | - | 1 | VII |
| *Epilecta linogrisea* ([Denis & Schiffermüller], 1775) | - | - | 1 | - | - | - | - | - | 1 | VIII |
| *Chersotis rectangula* ([Denis & Schiffermüller], 1775) | 2 | 2 | - | 1 | 1 | - | - | 1 | 7 | VIII-IX |
| *Chersotis margaritacea* (Villers, 1789) | - | - | 2 | - | - | - | - | 1 | 3 | VIII-IX |
| *Eugnorisma depuncta* (Linnaeus, 1761) | - | 1 | 3 | - | - | - | 2 | - | 6 | VIII-IX |
| *Xestia c-nigrum* (Linnaeus, 1758) | - | 1 | 2 | 1 | 5 | 5 | 1 | 3 | 18 | V-VI,VIII-X |
| *Xestia triangulum* (Hufnagel, 1766) | - | 21 | 14 | - | 4 | 5 | 46 | 5 | 95 | VI-VII |
| *Xestia baja* ([Denis & Schiffermüller], 1775) | 6 | 4 | 1 | - | 3 | 5 | 3 | 2 | 24 | VIII-IX |
| *Xestia stigmatica* (Esper, 1790) | 10 | 3 | - | 1 | 15 | 20 | - | 9 | 58 | VII-IX |
| *Xestia xanthographa* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | 5 | - | - | 5 | IX |
| *Cerastis rubricosa* ([Denis & Schiffermüller], 1775) | 7 | 5 | 2 | - | 7 | 7 | 3 | - | 31 | III-IV |
| *Peridroma saucia* (Hübner, [1808]) | 1 | 1 | 1 | 1 | 3 | 3 | 1 | - | 11 | VI-VII,IX-X |
| *Euxoa nigricans* (Linnaeus, 1761) | - | - | - | - | - | - | - | 3 | 3 | VII-VIII |
| *Euxoa tritici* (Linnaeus, 1761) | - | 1 | 1 | - | 6 | 10 | 6 | 1 | 25 | VII-IX |
| *Euxoa obelisca* ([Denis & Schiffermüller], 1775) | - | 1 | - | - | 1 | - | - | - | 2 | VIII-IX |
| *Dichagyris signifera* ([Denis & Schiffermüller], 1775) | 1 | 1 | - | 3 | 1 | - | - | - | 6 | VI-VII |
| *Dichagyris nigrescens* (Hofner, 1888) | - | - | - | 2 | 3 | 1 | 1 | 1 | 8 | VI-VII |
| *Yigoga forcipula* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | - | - | - | - | VI-VII |
| *Agrotis bigramma* (Hübner, [1803]) | 1 | 4 | 10 | 8 | 8 | 8 | - | 4 | 43 | VIII-IX |
| *Agrotis syricola* Berio, 1936 | - | - | - | - | 4 | - | - | - | 4 | IX-X |
| *Agrotis puta* (Hübner, [1803]) | - | - | - | - | 1 | - | - | - | 1 | IX |
| *Agrotis ipsilon* (Hufnagel, 1766) | - | - | - | - | 1 | 1 | 1 | 1 | 4 | VI-VIII,XI |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Agrotis trux* (Hübner, [1824]) | - | - | 1 | 1 | - | - | - | - | 2 | IX |
| *Agrotis exclamationis* (Linnaeus, 1758) | 3 | 1 | 3 | 4 | 15 | 20 | 4 | 34 | 84 | V-IX |
| *Agrotis clavis* (Hufnagel, 1766) | 4 | 1 | - | 10 | 3 | 2 | - | 6 | 26 | VI-VII |
| *Agrotis segetum* ([Denis & Schiffermüller], 1775) | - | 2 | 13 | 9 | 10 | 4 | 9 | 16 | 63 | VI-X |
| *Agrotis cinerea* ([Denis & Schiffermüller], 1775) | 38 | 2 | 7 | 47 | 19 | 13 | 12 | 28 | 166 | IV-VI |
| *Colocasia coryli* (Linnaeus, 1758) | - | 6 | 7 | - | - | - | - | - | 13 | V-VI,VIII |
| NOLIDAE | | | | | | | | | | |
| *Meganola strigula* ([Denis & Schiffermüller], 1775) | 2 | - | 11 | - | - | - | 1 | - | 14 | VI-VII |
| *Nola cucullatella* (Linnaeus, 1758) | - | - | - | - | - | - | 1 | - | 1 | VII |
| *Nola confusalis* (Herrich-Schäffer, 1847) | - | 1 | 1 | - | - | - | - | - | 2 | V |
| EREBIDAE | | | | | | | | | | |
| *Lymantria monacha* (Linnaeus, 1758) | - | 6 | 4 | - | - | - | 4 | - | 14 | VII-IX |
| *Ocneria rubea* ([Denis & Schiffermüller], 1775) | - | - | 3 | - | - | - | 1 | - | 4 | VI-VII |
| *Calliteara pudibunda* (Linnaeus, 1758) | - | 1 | - | - | - | - | - | - | 1 | V |
| *Idia calvaria* ([Denis & Schiffermüller], 1775) | - | - | 1 | - | - | - | - | - | 1 | VIII |
| *Catocala fraxini* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | - | 1 | VIII |
| *Lygephila craccae* ([Denis & Schiffermüller], 1775) | - | - | - | - | - | - | - | 1 | 1 | VI |
| *Lygephila procax* (Hübner, [1813]) | 1 | - | - | - | - | - | - | 1 | 2 | VI |
| *Hypena proboscidalis* (Linnaeus, 1758) | 5 | 23 | 10 | - | 1 | - | 2 | - | 41 | VI-X |
| *Hypena lividalis* (Hübner, 1796) | 1 | - | - | - | - | - | - | - | 1 | VII |
| *Parascotia fuliginaria* (Linnaeus, 1761) | - | - | 1 | - | - | - | - | - | 1 | VIII |
| *Cybosia mesomella* (Linnaeus, 1758) | - | - | - | - | - | - | 1 | - | 1 | VI |
| *Lithosia quadra* (Linnaeus, 1758) | - | 21 | 48 | 4 | - | - | 27 | 1 | 101 | VI-VIII |
| *Eilema lurideola* (Zincken, 1817) | 1 | 122 | 144 | 7 | 6 | 3 | 23 | 2 | 308 | VI-VII |
| *Eilema complana* (Linnaeus, 1758) | 6 | 84 | 121 | 11 | 1 | 3 | 16 | 4 | 246 | VI-VIII |
| *Eilema caniola* (Hübner, [1808]) | 2 | 1 | 16 | 5 | 1 | 7 | 9 | 13 | 54 | VI,VIII |
| *Eilema palliatella* (Scopoli, 1763) | 5 | 2 | 2 | - | - | - | - | - | 9 | VII-VIII |
| *Eilema pygmaeola* (Doubleday, 1847) | 2 | 2 | 1 | 5 | 7 | 2 | 1 | - | 20 | VII-VIII |
| *Dysauxes ancilla* (Linnaeus, 1767) | - | - | 2 | - | - | - | - | - | 2 | VI |
| *Phragmatobia fuliginosa* (Linnaeus, 1758) | 1 | - | - | - | - | - | - | - | 1 | IX |
| *Diacrisia sannio* (Linnaeus, 1758) | 18 | 1 | - | 1 | 8 | 8 | - | 4 | 40 | V-VII |
| *Hyphoraia testudinaria* (Fourcroy, 1785) | 2 | - | - | 1 | 1 | 4 | 3 | 1 | 12 | V |
| *Arctia caja* (Linnaeus, 1758) | 2 | 1 | - | - | - | - | 2 | - | 5 | VI-VII |
| *Arctia villica* (Linnaeus, 1758) | - | 2 | 1 | - | 1 | - | - | - | 4 | V-VI |

FAUNISTIC LIST OF DIURNAL LEPIDOPTERA

| Species | SLOn1d | SLOn4d | SLOn6d | SLOn8d | Total | Phenology |
|---|---|---|---|---|---|---|
| ZYGAENIDAE | | | | | | |
| *Jordanita notata* (Zeller, 1847) | - | 1 | - | - | 1 | V[2] |
| *Jordanita subsolana* (Staudinger, 1862) | 1 | - | 9 | 14 | 24 | V[3]-VII[2] |
| *Jordanita tenuicornis* (Zeller, 1847) | - | 1 | - | - | 1 | V[3] |
| *Adscita alpina* (Alberti, 1937) | 50 | 4 | 4 | 1 | 59 | V[3]-VIII[2] |
| *Zygaena purpuralis* (Brünnich, 1763) | - | 1 | - | - | 1 | VII[1] |
| *Zygaena nevadensis* Rambur, 1858 | 4 | - | - | - | 4 | VI[2] |
| *Zygaena romeo* Duponchel, 1835 | 1 | - | - | - | 1 | VI[2] |
| *Zygaena viciae* ([Denis & Schiffermüller], 1775) | 3 | - | - | - | 3 | VI[2] |
| *Zygaena transalpina* (Esper, 1780) | 1 | - | - | - | 1 | VII[2] |
| *Zygaena filipendulae* (Linnaeus, 1758) | 11 | 1 | - | 10 | 22 | VI[2]-VII[2] |
| *Zygaena lonicerae* (Scheven, 1777) | 20 | 1 | - | 6 | 27 | VI[2]-VII[1] |
| LASIOCAMPIDAE | | | | | | |
| *Malacosoma franconica* ([Denis & Schiffermüller], 1775) | - | - | - | 1 | 1 | VI[1] |
| SPHINGIDAE | | | | | | |
| *Macroglossum stellatarum* (Linnaeus, 1758) | 1 | 3 | 5 | 1 | 10 | V[3]-VI[1],VII[3]-VIII[2],IX[2] |
| *Deilephila porcellus* (Linnaeus, 1758) | - | - | 1 | 2 | 3 | V[3]-VI[1] |
| HESPERIIDAE | | | | | | |
| *Erynnis tages* (Linnaeus, 1758) | 7 | - | 2 | 1 | 10 | IV[2]-VI[1] |
| *Carcharodus alceae* (Esper, 1780) | 19 | 4 | 2 | 4 | 29 | V[2]-VI[1], VII[1], VII[3]-IX[2] |
| *Pyrgus carthami* (Hübner, [1813]) | 9 | 1 | - | - | 10 | VI[1]-VIII[2] |
| *Pyrgus sidae* (Esper, 1784) | - | 1 | - | - | 1 | VI[1] |
| *Pyrgus malvoides* (Elwes & Edwards, 1897) | 1 | - | - | - | 1 | V[3] |
| *Pyrgus onopordi* (Rambur, 1839) | 1 | 1 | - | - | 2 | VIII[2]-IX[2] |
| *Pyrgus armoricanus* (Oberthür, 1910) | 3 | - | 3 | - | 6 | V[2]-VI[1] |
| *Thymelicus lineola* (Ochsenheimer, 1808) | 67 | 3 | 3 | 39 | 112 | VI[1]-VII[3] |
| *Thymelicus sylvestris* (Poda, 1761) | 2 | 4 | 3 | 14 | 23 | VI[2]-VII[1] |
| *Ochlodes sylvanus* (Esper, 1777) | 125 | 3 | - | 11 | 139 | VI[1]-VII[3] |
| PAPILIONIDAE | | | | | | |
| *Zerynthia cassandra* ([Denis & Schiffermüller], 1775) | 1 | - | 1 | 1 | 3 | V[2]-V[3] |
| *Parnassius mnemosyne* (Linnaeus, 1758) | 29 | 1 | 33 | 14 | 77 | V[2]-VI[2] |
| *Iphiclides podalirius* (Linnaeus, 1758) | - | - | - | 1 | 1 | VII[1] |
| *Papilio machaon* Linnaeus, 1758 | - | 1 | - | - | 1 | VII[2] |
| PIERIDAE | | | | | | |
| *Leptidea sinapis* (Linnaeus, 1758) | 2 | - | 6 | 4 | 12 | V[2], VII[3]-IX[2] |
| *Anthocharis cardamines* (Linnaeus, 1758) | - | - | 3 | - | 3 | V[2], VI[1] |
| *Aporia crataegi* (Linnaeus, 1758) | 10 | 10 | 2 | 17 | 39 | V[3]-VII[2] |
| *Pieris brassicae* (Linnaeus, 1758) | 7 | 5 | 3 | 2 | 17 | V[3]-VII[2] |
| *Pieris mannii* (Mayer, 1851) | - | - | - | 2 | 2 | VI[1] |
| *Pieris rapae* (Linnaeus, 1758) | 39 | 49 | 38 | 23 | 149 | V[2]-VIII[2] |
| *Pieris napi* (Linnaeus, 1758) | 40 | 3 | 35 | 60 | 138 | IV[2]-IX[2] |
| *Pontia daplidice* (Linnaeus, 1758) | - | 2 | - | - | 2 | V[2],VII[2] |
| *Colias croceus* (Fourcroy, 1785) | 21 | 15 | 7 | 7 | 50 | V[2]-IX[2] |
| *Gonepteryx cleopatra* (Linnaeus, 1767) | - | 1 | - | 1 | 2 | VI[1] |

| | | | | | | |
|---|---|---|---|---|---|---|
| LYCAENIDAE | | | | | | |
| *Lycaena phlaeas* (Linnaeus, 1761) | 13 | 1 | 20 | 4 | 38 | IV[2]-IX[2] |
| *Lycaena tityrus* (Poda, 1761) | 11 | 3 | 26 | 9 | 49 | V[2]-IX[2] |
| *Lycaena alciphron* (Rottemburg, 1775) | 8 | 8 | - | 3 | 19 | V[3]-VII[3] |
| *Lampides boeticus* (Linnaeus, 1767) | 6 | - | - | 3 | 9 | VII[2]-VIII[2] |
| *Leptotes pirithous* (Linnaeus, 1767) | - | - | 1 | 2 | 3 | VII[2], IX[2] |
| *Cupido minimus* (Fuessly, 1775) | 4 | - | 7 | - | 11 | V[2]-VI[1],VII[1] |
| *Celastrina argiolus* (Linnaeus, 1758) | 12 | - | 1 | 2 | 15 | VI[2],VII[3]-VIII[2] |
| *Pengharis arion* (Linnaeus, 1758) | 1 | - | - | - | 1 | VI[2] |
| *Plebeius argus* (Linnaeus, 1758) | 13 | 19 | 4 | 117 | 153 | V[3]-VIII[2] |
| *Plebeius idas* (Linnaeus, 1761) | - | - | - | 1 | 1 | VII[1] |
| *Plebeius argyrognomon* (Bergsträsser, 1779) | 2 | - | - | 1 | 3 | VI[1]-VII[2] |
| *Aricia eumedon* (Esper, 1780) | 7 | 1 | - | 17 | 25 | V[3]-VI[2] |
| *Aricia agestis* ([Denis & Schiffermüller], 1775) | 8 | 2 | 7 | 4 | 21 | VI[1]-VI[2], VII[2]-VII[3], IX[2] |
| *Cyaniris semiargus* (Rottemburg, 1775) | 13 | 5 | 1 | 16 | 35 | V[3]-VII[1] |
| *Polyommatus dorylas* ([Denis & Schiffermüller], 1775) | - | 3 | 4 | - | 7 | V[2]-VI[1], VII[2], VIII[2]-IX[2] |
| *Polyommatus amandus* (Schneider, 1792) | 18 | - | 4 | 1 | 23 | V[3]-VI[2], VII[2]-VII[3] |
| *Polyommatus icarus* (Rottemburg, 1775) | 80 | 67 | 25 | 54 | 226 | V[2]-IX[2] |
| NYMPHALIDAE | | | | | | |
| *Libythea celtis* (Laicharting, 1782) | - | - | - | 1 | 1 | VI[1] |
| *Argynnis paphia* (Linnaeus, 1758) | 30 | 2 | 1 | 22 | 55 | VII[1]-VIII[2] |
| *Argynnis pandora* ([Denis & Schiffermüller], 1775) | 1 | 2 | 1 | 3 | 7 | VII[1],VIII[2]-IX[2] |
| *Argynnis aglaja* (Linnaeus, 1758) | 5 | - | 1 | 10 | 16 | VI[1]-VII[2] |
| *Argynnis niobe* (Linnaeus, 1758) | 17 | 2 | 1 | - | 20 | VII[1]-VII[2],VIII[2] |
| *Issoria lathonia* (Linnaeus, 1758) | 24 | 5 | 1 | 10 | 40 | IV[2]-V[2], VI[1],VII[1]-IX[2] |
| *Brenthis ino* (Rottemburg, 1775) | 32 | - | - | 1 | 33 | VI[2]-VII[3] |
| *Brenthis daphne* ([Denis & Schiffermüller], 1775) | - | - | - | 3 | 3 | VI[2]-VII[2] |
| *Boloria euphrosyne* (Linnaeus, 1758) | 32 | - | 1 | 29 | 62 | V[2]-VII[1] |
| *Vanessa atalanta* (Linnaeus, 1758) | - | - | 1 | 2 | 3 | V[2], VII[2], VIII[2] |
| *Vanessa cardui* (Linnaeus, 1758) | 2 | 4 | 2 | 2 | 10 | V[2]-VI[1], VII[1]-VII[3] |
| *Aglais urticae* (Linnaeus, 1758) | 1 | 1 | - | - | 2 | VI[1], VII[1] |
| *Polygonia c-album* (Linnaeus, 1758) | 6 | - | 3 | 3 | 12 | VI[1]-VIII[2] |
| *Nymphalis antiopa* (Linnaeus, 1758) | - | - | 1 | - | 1 | V[2] |
| *Nymphalis polychloros* (Linnaeus, 1758) | 1 | - | - | 1 | 2 | IV[2], VII[1] |
| *Melitaea cinxia* (Linnaeus, 1758) | 15 | 2 | 3 | 2 | 22 | V[2]-VI[2] |
| *Melitaea phoebe* ([Denis & Schiffermüller], 1775) | 8 | - | 1 | 4 | 13 | V[3]-VII[1] |
| *Melitaea didyma* (Esper, 1778) | 4 | 2 | 1 | 2 | 9 | VI[2], VII[2]-VII[3] |
| *Melitaea athalia* (Rottemburg, 1775) | 26 | 7 | 6 | 28 | 67 | V[3]-VII[2] |
| *Pararge aegeria* (Linnaeus, 1758) | 5 | - | 21 | 7 | 33 | V[2]-IX[2] |
| *Lasiommata megera* (Linnaeus, 1767) | 12 | 4 | 4 | 8 | 28 | V[2]-VII[2], VIII[2]-IX[2] |
| *Coenonympha arcania* (Linnaeus, 1761) | 35 | 1 | 4 | 11 | 51 | VI[1]-VII[3] |
| *Coenonympha pamphilus* (Linnaeus, 1758) | 8 | 44 | 40 | 37 | 129 | V[2]-IX[2] |
| *Maniola jurtina* (Linnaeus, 1758) | 33 | 52 | 58 | 98 | 241 | VI[1]-IX[2] |
| *Melanargia galathea* (Linnaeus, 1758) | 4 | 1 | 1 | 9 | 15 | VII[1]-VII[3] |
| *Hipparchia hermione* ([Denis & Schiffermüller], 1775) | 9 | 12 | 4 | 4 | 29 | VII[1]-VIII[2] |
| *Hipparchia semele* (Linnaeus, 1758) | 1 | 4 | 1 | 2 | 8 | VII[3]-IX[2] |
| *Hipparchia statilinus* (Hufnagel, 1766) | - | - | 2 | - | 2 | IX[2] |
| *Brintesia circe* (Fabricius, 1775) | 8 | 9 | 10 | 3 | 30 | VII[1]-IX[2] |
| GEOMETRIDAE | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Chiasmia clathrata* (Linnaeus, 1758) | 15 | - | 1 | - | 16 | V[2]-VI[1] |
| *Ematurga atomaria* (Linnaeus, 1758) | 17 | - | 1 | - | 18 | V[3]-VI[2] |
| *Cabera pusaria* (Linnaeus, 1758) | - | - | 1 | 1 | 2 | V[3]-VI[1] |
| *Siona lineata* (Scopoli, 1763) | 20 | - | 3 | 6 | 29 | VI[1]-VII[1] |
| *Perconia strigillaria* (Hübner, 1787) | - | - | - | 1 | 1 | V[3] |
| *Scopula tessellaria* (Boisduval, 1840) | 25 | - | 1 | 12 | 38 | V[3]-VI[2] |
| *Scopula rubiginata* (Hufnagel, 1767) | - | 1 | - | - | 1 | V[3] |
| *Idaea ochrata* (Scopoli, 1763) | - | - | 1 | - | 1 | V[3] |
| *Idaea humiliata* (Hufnagel, 1767) | 2 | - | 1 | 2 | 5 | VI[2] |
| *Idaea pallidata* ([Denis & Schiffermüller], 1775) | 1 | 3 | - | 1 | 5 | V[2]-VI[1] |
| *Cleta filacearia* (Herrich-Schäffer, 1847) | - | - | 1 | - | 1 | VI[1] |
| *Rhodostrophia vibicaria* (Clerck, 1759) | - | - | 1 | - | 1 | VII[1] |
| *Rhodometra sacraria* (Linnaeus, 1767) | - | 1 | - | - | 1 | VII[1] |
| *Lythria cruentaria* (Hufnagel, 1767) | 1 | 7 | 10 | 2 | 20 | V[2]-VIII[2] |
| *Scotopteryx chenopodiata* (Linnaeus, 1758) | 2 | - | - | - | 2 | VII[3], VIII[2] |
| *Scotopteryx mucronata* (Scopoli, 1763) | 3 | - | - | - | 3 | VII[2] |
| *Scotopteryx luridata* (Hufnagel, 1767) | 1 | - | - | - | 1 | VII[1] |
| *Xanthorhoe montanata* ([Denis & Schiffermüller], 1775) | 4 | - | 1 | 4 | 9 | V[3],VI[2] |
| *Epirrhoe alternata* (Müller, 1764) | 16 | - | 13 | 5 | 34 | V[2]-VI[1] |
| *Colostygia pectinataria* (Knoch, 1781) | 1 | - | - | - | 1 | VII[1] |
| NOCTUIDAE | | | | | | |
| *Autographa gamma* (Linnaeus, 1758) | - | - | 1 | - | 1 | V[2] |
| *Eublemma parva* (Hübner, 1808) | 1 | - | - | - | 1 | V[2] |
| *Panemeria tenebrata* (Scopoli, 1763) | - | - | - | 1 | 1 | V[2] |
| *Helicoverpa armigera* (Hübner, [1808]) | 1 | - | - | - | 1 | VII[3] |
| *Stilbia faillae* Püngeler, 1918 | - | 1 | - | - | 1 | VIII[2] |
| *Mythimna impura* (Hübner, [1808]) | 1 | - | - | - | 1 | VII[2] |
| EREBIDAE | | | | | | |
| *Euclidia mi* (Clerck, 1759) | 2 | 1 | 3 | 3 | 9 | V[2]-VI[1] |
| *Euclidia glyphica* (Linnaeus, 1758) | 90 | - | 30 | 18 | 138 | V[2]-VIII[2] |
| *Eilema lurideola* (Zincken, 1817) | - | - | 1 | - | 1 | VII[2] |
| *Eilema caniola* (Hübner, [1808]) | - | - | 1 | - | 1 | VIII[2] |
| *Amata ragazzii* (Turati, 1917) | 3 | - | - | - | 3 | VII[1]-VII[2] |
| *Coscinia striata* (Linnaeus, 1758) | 5 | - | - | - | 5 | VI[1], VII[1]-VII[2] |
| *Diacrisia sannio* (Linnaeus, 1758) | 10 | - | 5 | 5 | 20 | V[3]-VIII[2] |