

Heterocera fauna of the Calabrian black pine forest, Sila Massif (Italy) (Insecta: Lepidoptera)

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Abstract

In this paper we described the Heterocera fauna of the Calabrian black pine forest in the Sila Massif, southern Italy. We sampled 15 stands at 1270-1446 meters of altitude. One UV-Led light traps per stand was turned on once per month from May to November 2015 and from April to November 2016. We collected 18,827 individuals belonging to 367 species. *Thaumetopoea pityocampa* (Notodontidae) and *Alcis repandata* (Geometridae) were the most abundant species. Conifers are the main larval foodplant of 11 species and 4,984 individuals. Particularly interesting was the presence of *Eupithecia indigata*, discovered in Italy outside the Alps few years ago, abundant in pure Calabrian black pine stands. Also, the recently described Italian endemic *Hylaea mediterranea* was abundant, and together with *E. indigata* compose and unique species assemblage characterizing Lepidoptera fauna of the Calabrian black pine forests of the Sila Massif. During the spring, communities were dominated by *Eupithecia indigata* and *Agrotis cinerea*, during the summer *Thaumetopoea pityocampa*, *Alcis repandata*, *Idaea deversaria*, and *Dendrolimus pini* were dominant, and autumn communities were characterized by *Pennithera firmata* and *Colostygia sericeata*. We confirmed the presence of *Acossus terebra*, *Dichagyris signifera*, *Acasis appensata*, *Mesotype didymata*, *Plusidia cheiranthi*, *Trichopteryx carpinata*, and *Lithophane socia*. The relevant interest of this fauna was completed by the presence of several Italian endemic species: *Hydriomena sanfilensis*, *Idaea mutilata*, *Itame messapiaria*, *Megalycinia serraria*, *Nychiodes ragusaria*, and *Xanthorhoe vidanoi*.

KEY WORDS: Insecta, Lepidoptera, biodiversity, *Pinus laricio calabrica*, Sila National Park, Calabria, Italy.

Fauna de Heterocera del bosque de pino negro de Calabria, Macizo de Sila (Italia) (Insecta: Lepidoptera)

Resumen

Describimos en este trabajo la fauna de Heterocera en el bosque del pino negro calabrés en el Macizo de Sila, sur de Italia. Muestreamos en 15 lugares entre los 1.270-1.446 metros de altitud. Una de las trampas de luz UV-led estuvo encendida una vez al mes, desde mayo a noviembre de 2015 y de abril a noviembre de 2016. Se recogieron 18.827 ejemplares que pertenecían a 367 especies. *Thaumetopoea pityocampa* (Notodontidae) y *Alcis repandata* (Geometridae) eran las especies más abundante. Las coníferas son la principal planta nutricia de 11 especies y 4.984 ejemplares. La presencia de *Eupithecia indigata*, descubierta en Italia fuera de los Alpes hace pocos años, es abundante y particularmente interesante en el bosque del pino negro calabrés. También, el endemismo italiano *Hylaea mediterranea*, recientemente descrito, era abundante y junto con la especie *E. indigata* compone un conjunto único característico de la fauna de Lepidoptera del pino negro calabrés del Macizo de Sila. Durante la primavera, las comunidades estaban dominadas por *Eupithecia indigata* y *Agrotis cinerea*, durante el verano *Thaumetopoea pityocampa*, *Alcis repandata*, *Idaea deversaria* y *Dendrolimus pini* y las comunidades de otoño fueron caracterizadas por *Pennithera firmata* y *Colostygia sericeata*. Confirmamos la presencia de *Acossus terebra*, *Dichagyris signifera*, *Acasis appensata*, *Mesotype didymata*, *Plusidia cheiranthi*, *Trichopteryx carpinata* y *Lithophane socia*. El interés

relevante de esta fauna, concluye con la presencia de algunas especies endémicas italianas: *Hydriomena sanfilensis*, *Idaea mutilata*, *Itame messapiaria*, *Megalycinia serraria*, *Nychiodes ragusaria* y *Xanthorhoe vidanoi*.

PALABRAS CLAVE: Insecta, Lepidoptera, biodiversidad, *Pinus laricio calabrica*, Parque Nacional de Sila, Calabria, Italia.

Introduction

The Sila Massif is a very peculiar mountainous area, located at the southern part of the Apennines (Italy). It is geologically a piece of Alps which has been migrated with Corsica and Sardinia from Provence across the Mediterranean Sea toward the current position. The geological substratum is mainly granitic, differing from the calcareous-karst of the rest of Apennines, promoting a pronounced surface hydrography. The richness of waters in this area, joined with the characteristics of rocks, confers a typical cold-humid climate. The acid substratum, the high soil permeability due to the sands derived from the meteoric alteration of granitic rocks, and the large surface of territory with an altitude higher than 1100 metres above the sea level, create climatic and environmental conditions favouring the presence of relict populations of plants and animals usually distributed at higher latitudes (BRANDMAYR *et al.*, 2013). The Sila Massif is characterized by the forests of Calabrian black pine, *Pinus laricio calabrica* (Loudon) Cesca & Peruzzi, an endemic conifer subspecies which extends along the Italian regions of Calabria and Sicily (CESCA & PERUZZI, 2002). Calabrian black pine forests of the Sila Massif appear heterogeneous, interrupted by pastures, crops and beech forests, sometimes mixed with silver fir trees. During and after the Second World War, pine forests of the Sila Massif were intensively deforested causing a large soil erosion and altering the natural evolution of woodlands. A great part of pure pine forests, located between 900 and 1300 m asl, are reforestation carried out between the years 1950 and 1970 (IOVINO & MENGUZZATO, 2000; CIANCIO *et al.*, 2005). Over time, Sila pine forests acquired a great conservation importance and most of the pine forests are nowadays within the Sila National Park (CIANCIO *et al.*, 2010), which includes several Sites of Community Importance (SCI) (BRANDMAYR *et al.*, 2013). Furthermore, this forest type is included among the (Sub-) Mediterranean pine forests with endemic black pines (Habitat Code 9530) (Habitat Directive 92/43/EEC).

Lepidopteran fauna of the Sila Massif was explored by several authors which highlighted the great interest of this mountainous area providing always 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), a number of species has relict populations here, some of which reported in Italy with certitude only for the Alps and for Sila Massif and neighbouring areas, namely *Brenthis ino* (Rottemburg, 1775) (Nymphalidae), *Acossus terebra* ([Denis & Schiffermüller], 1775) (Cossidae), *Eupithecia indigata* ([Hübner, 1813]) (Geometridae), *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 moths 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 Calabrian black pine forests. This kind of data are of crucial importance for identifying modifications in the ecosystem due to land-use and climate changes.

The aim of this study was to improve the knowledge about moth fauna inhabiting Calabrian black pine forests, exploring mature forests, young reforestations, and non-forested habitats surrounded by a forest matrix. We reported the complete checklist of sampled moth species, with abundance and phenology data.

Material and methods

STUDY AREA

The massif is conventionally divided into three geographic zones, named Sila Greca, Sila Grande

and Sila Piccola, from the North to the South. This study was carried out in the Sila Grande, largely covered by Calabrian black pine forests. Investigated forests are partly included in the Sila National Park and extend between 1270 and 1446 meters of altitude. We sampled 15 stands, grouped in 5 threes (SL_A_{1,2,3}, SL_B_{1,2,3}, SL_C_{1,2,3}, SL_D_{1,2,3}, SL_E_{1,2,3}). Stands composing a threes were located in the same locality in order to reduce the bias due to uncontrolled environmental parameters. Furthermore, any threes are composed by one mature pine forest, one reforestation, and one open habitat surrounded by a forest matrix (Figure 1, Table I).

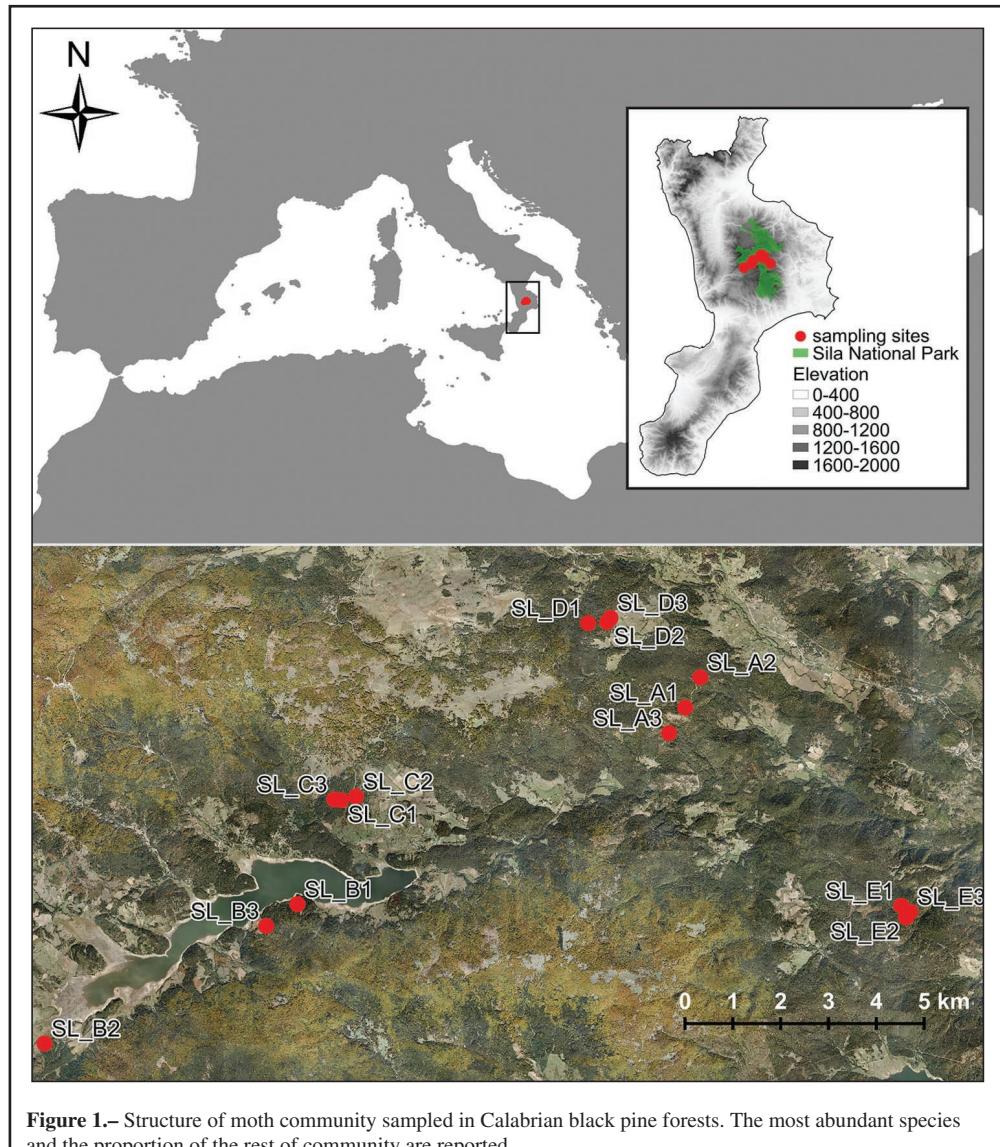


Figure 1.—Structure of moth community sampled in Calabrian black pine forests. The most abundant species and the proportion of the rest of community are reported.

Table I.– Detailed data concerning the location of sampled stands.

Stand	Locality	Latitude; Longitude (EPSG:4265)	Elevation (m)	Year of sampling
SL_A1	Montagna Grande	39.274287N; 16.609499E	1352	2015, 2016
SL_A2	Montagna Grande	39.279669N; 16.613029E	1325	2015, 2016
SL_A3	Montagna Grande	39.269444N; 16.605573E	1344	2015, 2016
SL_B1	Torre Scarda	39.237058N; 16.515658E	1324	2015
SL_B2	Quaresima	39.210687N; 16.454455E	1306	2015
SL_B3	Quaresima	39.232925N; 16.508077E	1325	2015
SL_C1	Colle Macchie	39.256748N; 16.526224E	1428	2015
SL_C2	Vallivone	39.257446N; 16.529830E	1446	2015
SL_C3	Colle Macchie	39.256898N; 16.524549E	1433	2015
SL_D1	San Bernardo	39.290227N; 16.585985E	1425	2016
SL_D2	San Bernardo	39.290451N; 16.590566E	1383	2016
SL_D3	San Bernardo	39.291233N; 16.591393E	1380	2016
SL_E1	Mangiatoie	39.236768N; 16.661754E	1275	2016
SL_E2	Mangiatoie	39.234567N; 16.662936E	1275	2016
SL_E3	Mangiatoie	39.235617N; 16.663967E	1270	2016

SAMPLING DESIGN

Moth sampling was carried out by using UV-Led light traps (further details in INFUSINO et al 2017b). One trap was positioned in each stand, activated one night per month during nights favorable 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). The sampling was carried out in two years, from May to November 2015 in the threes SL_A, SL_B and SL_C, and from April to November 2016 in SL_A, the only threes replicated for two years, SL_D and SL_E. In detail, 2015 sampling nights were 18-V, 15-VI, 17-VII, 18-VIII, 7-IX, 5-X, and 4-XI, and 2016 sampling nights were 12-IV, 11-V, 7-VI, 5-VII, 25-VII, 13-IX, 3-X, and 7-XI.

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.

Results

A total of 367 species and 18,827 individuals belonging to 13 families was collected. In the following faunistic list we reported for any species the number of individuals collected in each stand, the total abundance and the phenology indicated as the month of sampling.

Discussion

Most abundant species in Calabrian black pine forests were *Thaumetopoea pityocampa* (Notodontidae) (11.7%) and *Alcis repandata* (Geometridae) (10.5%). The first species, already known for its role as defoliator, usually lives in sub-nemoral habitats and has oligophagous larvae feeding on conifers, mainly *Pinus* spp., *Larix* spp., *Picea* spp., and *Juniperus* spp. (BERTACCINI et al., 1997). The second species usually prefers nemoral habitats and has polyphagous larvae mainly feeding on trees and shrubs (HELLMANN & PARENZAN, 2010). The 65% of individuals belonged to 23 species only, whilst the remaining 344 species, with less than the 1% of occurrence each, represented the 35.7% of total abundance (Figure 2).

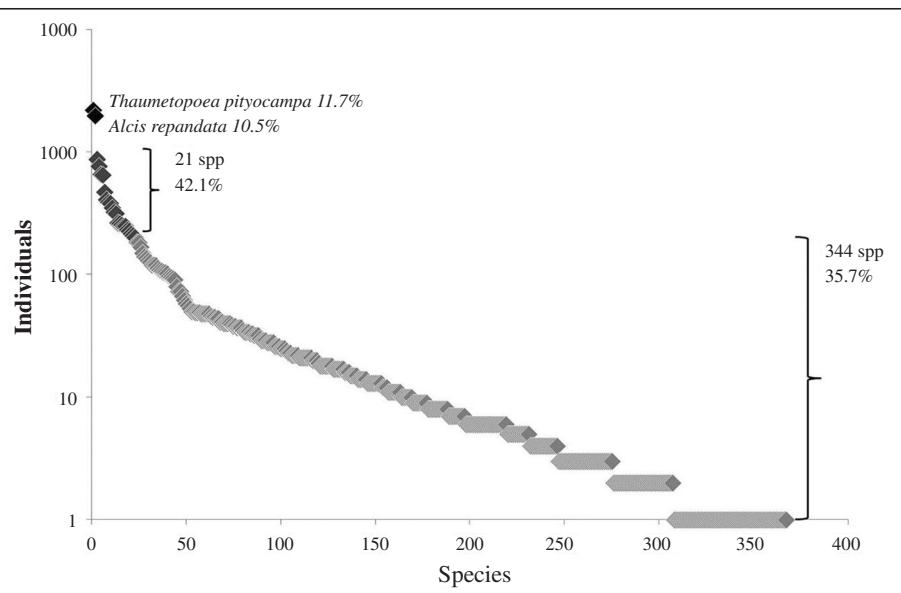


Figure 2.—Location of study area and distribution of the sampling stands.

Conifers are the main larval foodplant of 11 species and 4,984 individuals, representing the 26.5% of the whole community (Table II). Particularly interesting was the abundance of *Eupithecia indigata*, a species only recently discovered in Italy outside the Alps in a mixed reforestation of broadleaves and conifers of the Catena Costiera mountains, Calabria (SCALERCIO, 2004, 2014). Successively, it was also found in a beech forest (SCALERCIO *et al.*, 2008) and in a mixed forest (INFUSINO & SCALERCIO, 2015) of the Sila Massif, always with rare individuals. This species was particularly abundant in pure Calabrian black pine stands because larvae are oligophagous on conifers (MIRONOV, 2003). Also, the recently described Italian endemic *Hylaea mediterranea*, another species with larvae feeding on conifers, was abundant, and together with *E. indigata* contributed to compose a unique species assemblage univocally characterizing moth fauna of the Calabrian black pine forests of the Sila Massif.

Species feeding only on herbaceous plants composed the most rich (164 species), and abundant (5,594 individuals) portion of the community, representing about the 30% of the total abundance (Table II). Most of them are nemoral or sub-nemoral such as *Epirrhoe galiata* (n=655), *E. alternata* (n=232), *Idaea deversaria* (n=651), *Scotopteryx luridata* (n=259), *Cerastis rubricosa* (n=255), *Charanyca ferruginea* (n=215), and *Pachetra sagittigera* (n=472), whilst species preferring grasslands were less represented with only *Agrotis cinerea* (n=390) and *Chiasmia clathrata* (n=207) collected in a high number of individuals. Also, the abundance of *Colostygia sericeata* (n=200) should be underlined, as the taxonomic identity of southern Italy populations is still uncertain (HAUSMANN & VIIDALEPP, 2012).

During the spring, communities were dominated by *Eupithecia indigata*, particularly common within denser forest stands, whilst open habitats were characterized by *Agrotis cinerea*. Well represented were also *Epirrhoe galiata*, *Pachetra sagittigera* and *Cerastis rubricosa*. During the summer, several species attained high abundance values among which *Thaumetopoea pityocampa*, *Alcis repandata*, *Idaea deversaria*, and *Dendrolimus pini* were dominant. During the autumn most

abundant species, were *Pennithera firmata* and *Colostygia sericeata*, accompanied by *Larentia clavaria* and *Conistra torrida*. Species characterizing the fauna of Calabrian black pine forests were generally monovoltine, as usually occur in mountain habitats, with the exception of *Hylaea mediterranea* on wings from May to July and from September to October. The endemic *Itame messapiaria* is likely monovoltine although it showed a prolonged flying period lasting from May to early September. Other bivoltine species, such as *Aplocera plagiata*, *Charissa onustaria*, *Cosmorhoe ocellata*, *Gymnoscelis rufifasciata*, *Peribatodes rhomboidaria*, and *Pseudoterpna coronillaria*, were widespread, occurring in southern Italy within several habitat types at different altitudes.

Table II.— Moth community sampled in the Calabrian black pine ecosystem. We reported detailed abundance of conifer feeding species and grouped data of species with different larval diet.

Species	Individuals	%	Larval diet
<i>Thaumetopoea pityocampa</i>	2,196	11.7	conifers
<i>Eupithecia indigata</i>	869	4.6	conifers
<i>Pennithera firmata</i>	764	4.1	conifers
<i>Dendrolimus pini</i>	406	2.2	conifers
<i>Hylaea mediterranea</i>	320	1.7	conifers
<i>Panolis flammea</i>	150	0.8	conifers
<i>Eupithecia subfuscata</i>	120	0.6	conifers
<i>Sphinx pinastri</i>	119	0.6	conifers
<i>Peribatodes secundaria</i>	21	0.1	conifers
<i>Lymantria monacha</i>	16	0.1	conifers
<i>Eupithecia tantillaria</i>	3	0.02	conifers
99 species	1,986	10.6	broadleaves
164 species	5,594	29.7	herbaceous plants
14 species	842	4.5	fungi, lichens, mosses, detritus
71 species	5,205	27.7	generalist
8 species	216	1.2	unkown

In this paper we confirmed the presence in the Sila Massif of several species of great biogeographic interest: *Acossus terebra* and *Dichagyris signifera* known in Italy with certitude outside the Alps only in the Sila Massif (PARENZAN, 1982; ZILLI, 2005); *Acasis appensata*, *Mesotype didymata*, and *Plusidia cheiranthi* known in southern Italy only in the Sila Massif (PARENZAN, 1979; INFUSINO *et al.*, 2017c); *Trichopteryx carpinata* and *Lithophane socia* only recently found in Calabria for the first time (INFUSINO *et al.*, 2017c), but the latter erroneously identified as *L. semibrunnea* due to a mistake in a plate of BERIO (1985) used for the species identification. The relevant interest of the fauna of this forest type was completed by the presence of the following Italian endemic species: *Hydriomena sanfilensis*, *Idaea mutilata*, *Itame messapiaria*, *Megalycinia serraria*, *Nychiodes ragusaria*, and *Xanthorhoe vidanoi*.

Conclusions

Calabrian pine forests are differently managed depending on their location. Inside the boundaries of the Sila National Park, the pine forests are preserved for conservation purposes, outside the Park they are submitted to various timber harvest strategies. Several reforested hectares are only rarely managed and then prone to fires and damages due to severe climatic conditions (NICOLACI *et al.*, 2014). We sampled moth communities within all these differently managed Calabrian black pine forests, that showed in all cases a very interesting and characteristic spectrum of species, rich of relicts and endemics. Furthermore, sampled communities are a faunistic *unicum* as host species the range of which is overlapped only in this forest type of the Calabria region. In addition, preliminary results

showed that also the most abundant species trophically linked to conifers, *Thaumetopoea pityocampa*, has a population genetically different from those of the rest of the Apennines (TREMATERRA *et al.*, 2017), confirming the long isolation history of this conifer forest composed by an endemic tree.

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Species		Phenology
	Tel	
HEPTALIDAE		
<i>Triodia sylvina</i> (Linnaeus, 1761)	- 1 -	- - - - -
LIMACODIIDAE	- 1 1 1 1 6 -	- 2 - - - -
<i>Apoda limacodes</i> (Hufnagel, 1766)	- - - - - -	- - - - - -
COSSIDAE		
<i>Acossus teretrix</i> (Denis & Schiffermüller, 1775)	- - - - - -	- - - - - -
LASIOCAMPIDAE		
<i>Dendrolimus pini</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
<i>Lasiochampa querqus</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
<i>Lasiochampa trifolii</i> (Denis & Schiffermüller, 1775)	- - - - - -	- - - - - -
<i>Macrolyticula rubri</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
<i>Poecilocampa alpinia</i> (Frey & Wulschlegel, 1874)	- - - - - -	- - - - - -
<i>Trichiura crataegi</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
ENDROMIDAE		
<i>Endromis versicolora</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
BRAHMAEIDAE		
<i>Leontina taraxaci</i> (Denis & Schiffermüller, 1775)	- 1 - - - -	- 1 1 2 - -
SPHINGIDAE		
<i>Hyles livornica</i> (Esper, 1779)	- - - - - -	- - - - - -
<i>Laodice populi</i> (Linnaeus, 1758)	- 2 1 2 - -	- 1 2 1 2 -
<i>Sphinx pinastri</i> (Linnaeus, 1758)	8 7 5 1 3 2 -	27 6 2 14 32 1 3 3 2 -
DREPANIDAE		
<i>Drepana falcataria</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
<i>Polyptychus ridens</i> (Fabricius, 1787)	- - - - - -	- - - - - -
<i>Telheia or</i> (Denis & Schiffermüller, 1775)	- 3 2 1 - -	- 2 1 2 - -
<i>Thyatira batis</i> (Linnaeus, 1758)	- - - - - -	- - - - - -
<i>Watsonalla binaria</i> (Hufnagel, 1767)	- - - - - -	- - - - - -
<i>Watsonalla caltharia</i> (Fabricius, 1775)	- 2 - - - -	- 3 - - - -
GEOMETRIDAE		
<i>Acantha appressata</i> (Eversmann, 1842)	- - - - - -	- - - - - -
<i>Adactylotis contaminaria</i> (Hübner, [1813])	- - - - - -	- - - - - -
<i>Alecia repandata</i> (Linnaeus, 1758)	150 439 83 53 189 31 344 76 16 127 270 33 28 6 39 57 17 1981	10 13 17 11 6 3 12 44 10 8 16 1 19 12 9 249 4V-XI
<i>Aplocaera plagiata</i> (Linnaeus, 1758)	14 22 22 10 3 1 - - - - - -	7 7 25 7 81 116 71 27 13 6 4 2 - - -
<i>Aplocaera praeformata</i> (Hübner, [1826])	4 9 3 1 - - - - - -	- - - - - -
<i>Aspitates ochrearia</i> (Rossi, 1794)	- - - - - -	- - - - - -
<i>Biston betularia</i> (Linnaeus, 1758)	8 - - - - - -	- 6 - 7 1 - 2 - - 1 2 - 1 29 1V-VIII
<i>Biston strataria</i> (Hufnagel, 1767)	- - - - - -	- - - - - -
<i>Calyptra eanithemata</i> (Scopoli, 1763)	- - - - - -	- - - - - -
<i>Calyptra pueraria</i> (Linnaeus, 1758)	- - - - - -	- 4 1 - 1 2 - - 1 2 - - 1 10 VI-VIII

Species		Phenology
	Tel	
<i>Eupithecia haworthiata</i> Doubleday, 1836	-	-
<i>Eupithecia icterata</i> (Villers, 1789)	4	7
<i>Eupithecia indigata</i> (Hübner, [1813])	5	32
<i>Eupithecia imitata</i> (Hübner, 1767)	-	74
<i>Eupithecia insigniata</i> (Hübner, 1790)	-	1
<i>Eupithecia irregulata</i> (Hübner, [1813])	-	208
<i>Eupithecia inaurata</i> (Denis & Schiffermüller, 1775)	-	45
<i>Eupithecia milleplaeta</i> Rössler, 1866	-	9
<i>Eupithecia piminelata</i> (Hübner, [1813])	-	25
<i>Eupithecia pyrenaea</i> Mabille, 1871	-	1
<i>Eupithecia semigraphata</i> Bräuand, 1850	2	-
<i>Eupithecia subfuscata</i> Haworth, 1809	39	8
<i>Eupithecia tantillaria</i> Boisduval, 1840	1	-
<i>Eupithecia tenuata</i> (Hübner, [1813])	-	2
<i>Eupithecia venustata</i> (Fabricius, 1787)	4	2
<i>Eupithecia vulgaris</i> (Haworth, 1809)	3	4
<i>Fagivorina arenaria</i> (Hufnagel, 1767)	1	-
<i>Gaudaritis pyridata</i> (Denis & Schiffermüller, 1775)	8	43
<i>Geometra papilionaria</i> (Linnaeus, 1758)	-	-
<i>Giophas farinata</i> (Denis & Schiffermüller, 1775)	8	23
<i>Gymnoscelis rufifasciata</i> (Haworth, 1809)	9	4
<i>Hornsyntersuta</i> (Denis & Schiffermüller, 1775)	9	20
<i>Hydriomena furcata</i> (Thunberg, 1784)	-	1
<i>Hydriomena staffenensis</i> (Staudinger, 1915)	-	-
<i>Hyiacamediterranea</i> Sivonen, Skou, Hamiltion, Fiumi & Hausmann, 2014	7	121
<i>Idaea aversaria</i> (Linnaeus, 1758)	4	26
<i>Idaea consanguinaria</i> (Leeder, 1853)	1	2
<i>Idaea degeneraria</i> (Hübner, [1799])	4	-
<i>Idaea determinata</i> (Staudinger, 1876)	-	11
<i>Idaea diversaria</i> (Herrich-Schäffer, 1847)	12	391
<i>Idaea dilataria</i> (Hübner, [1799])	13	3
<i>Idaea dimidiata</i> (Hufnagel, 1767)	-	-
<i>Idaea fuscovenosa</i> (Goeze, 1781)	29	10
<i>Idaea humiliata</i> (Hufnagel, 1767)	44	-
<i>Idaea multifaria</i> (Staudinger, 1876)	1	7
<i>Idaea ochrina</i> Scopoli, 1763	-	-
<i>Idaea rubaria</i> (Staudinger, 1901)	-	-
<i>Idaea rusticata</i> (Denis & Schiffermüller, 1775)	3	-
<i>Idaea sericata</i> (Schrank, 1802)	-	1
		1
		26
		869
		VII-VI
		14
		IV-V
		2
		VII
		6
		VII-VIII
		8
		VIII
		2
		VII-VIII
		4
		VII-VIII
		120
		VII-VIII
		3
		VII
		107
		VII-VIII
		2
		VII-VIII
		23
		V-VII
		49
		V-VI
		17
		V-VII
		5
		VII
		41
		VII-VIII
		7
		V-VI
		4
		V-VII-X
		102
		VII-VIII
		3
		VII
		22
		V-VI
		48
		VII-VIII
		39
		VII-VIII
		4
		VII
		1
		VII
		9
		VII-VIII
		6
		VII-VIII
		1
		VII-VIII
		1
		X

Species	Tel	Phenology
<i>Siona lineata</i> (Scopoli, 1763)	-	-
<i>Solidanea nariae</i> (Stauder, 1921)	-	-
<i>Tephronia ephorbiae</i> (Hufnagel, 1767)	-	-
<i>Thera britannica</i> (Turner, 1925)	-	-
<i>Thalera fimbrialis</i> (Scopoli, 1763)	-	-
<i>Theliida smaragdaria</i> (Fabricius, 1787)	-	-
<i>Timandra comae</i> Schmidt, 1931	-	-
<i>Trichopteryx carpinata</i> (Borkhausen, 1794)	-	-
<i>Xanthorhoes designata</i> (Hufnagel, 1767)	-	-
<i>Xanthorhoes fluctuata</i> (Linnaeus, 1758)	-	-
<i>Xanthorhoes monianata</i> (Denis & Schiffmüller, 1775)	-	-
<i>Xanthorhoes vidanoi</i> Parenzan & Häusmann, 1994	-	-
NOTODONTIDAE	-	-
<i>Cerura vinula</i> (Linnaeus, 1758)	-	-
<i>Clastria nigra</i> (Hufnagel, 1766)	-	-
<i>Drymonia dolomaea</i> (Denis & Schiffmüller, 1775)	-	-
<i>Drymonia quernea</i> (Denis & Schiffmüller, 1775)	-	-
<i>Drymonia reticularis</i> (Hufnagel, 1766)	-	-
<i>Natada donzedarii</i> (Linnaeus, 1758)	-	-
<i>Notodontia tritophus</i> (Denis & Schiffmüller, 1775)	-	-
<i>Peridea ancyropteryx</i> (Goeze, 1781)	-	-
<i>Phialera bucephala</i> (Linnaeus, 1758)	-	-
<i>Pheosia tremula</i> (Clerck, 1759)	-	-
<i>Premnoma palpina</i> (Clerck, 1759)	-	-
<i>Prileola capucina</i> (Linnaeus, 1758)	-	-
<i>Prileola caeculina</i> (Denis & Schiffmüller, 1775)	-	-
<i>Saurorus fagi</i> (Linnaeus, 1758)	-	-
<i>Thaumetopoea pityocampa</i> (Denis & Schiffmüller, 1775)	27	183 83 70 60 112 12 38 1 31 85 17 212 259 89 299 343 275 2,196
NOCTUIDAE	-	-
<i>Abrostola riparia</i> (Hufnagel, 1766)	-	-
<i>Acronicta euphorbiae</i> (Denis & Schiffmüller, 1775)	-	-
<i>Acronicta psi</i> (Linnaeus, 1758)	-	-
<i>Acronicta rumicis</i> (Linnaeus, 1758)	-	-
<i>Agrotis helvola</i> (Linnaeus, 1758)	-	-
<i>Agrotis illiana</i> (Linnaeus, 1758)	-	-
<i>Agrotis lola</i> (Clerck, 1759)	-	-
<i>Agrotis maculenta</i> (Hübner, [1809])	-	-
<i>Agrotis pistacioides</i> (d'Aubutsson, 1867)	-	-
<i>Agrotis bigramma</i> (Esper, 1790)	-	-

Species	Total	Phenology	
		SL_E3	SL_E2
<i>Agratis caldamaensis</i> Millière, 1873	-	-	-
<i>Agratis tineera</i> (Denis & Schiffmüller), 1775	16	26	19
<i>Agratis clavis</i> (Hufnagel), 1766	-	-	-
<i>Agratis exclamationis</i> (Linnaeus, 1758)	-	-	-
<i>Agratis ipsilon</i> (Hufnagel), 1766	-	-	-
<i>Agratis puta</i> (Hühner, [1803])	-	-	-
<i>Agratis segatum</i> (Denis & Schiffmüller, 1775)	5	-	-
<i>Agratis trax</i> (Hühner, 1824)	-	-	-
<i>Allophyes corsica</i> (Spuler, 1905)	-	-	-
<i>Ammonoconia caecimacula</i> (Denis & Schiffmüller), 1775	-	-	-
<i>Amphypteryx pyramidea</i> (Linnaeus, 1758)	-	-	-
<i>Amphypteryx tenua</i> (Fabricius, 1787)	2	-	-
<i>Amphypteryx trapezopteris</i> (Clerck, 1759)	-	-	-
<i>Anitype elii</i> (Linnaeus, 1758)	-	-	-
<i>Apamea crenata</i> (Hufnagel), 1766	-	-	-
<i>Apamea eponiadis</i> (Haworth, 1809)	1	-	-
<i>Apamea illinoiensis</i> Freyer, 1846	-	-	-
<i>Apamea lithoxylaea</i> (Denis & Schiffmüller), 1775	1	-	-
<i>Apamea monoglypha</i> (Hufnagel), 1766	2	-	-
<i>Apamea syriaca</i> (Osthelder, 1933)	3	-	-
<i>Apamea sondens</i> (Hufnagel), 1766	-	-	-
<i>Apophrysa australis</i> (Boisduval, 1829)	-	-	-
<i>Apophrysa hueuebergensis</i> (Freyer, 1848)	3	-	-
<i>Apopergamum ypsilon</i> (Denis & Schiffmüller), 1775	-	-	-
<i>Asterocampa sphinx</i> (Hufnagel), 1766	22	-	-
<i>Aethes palustris</i> (Hühner, [1808])	-	-	-
<i>Atyptha palmonaria</i> (Esper, 1790)	1	-	-
<i>Autographa gamma</i> (Linnaeus, 1758)	1	-	-
<i>Autographa pulchra</i> (Haworth, 1809)	1	-	-
<i>Calophasia lunula</i> (Hufnagel), 1766	2	-	-
<i>Caradrina aspersa</i> Rambur, 1834	3	-	-
<i>Caradrina clavigalis</i> Scopoli, 1763	1	-	-
<i>Caradrina fluvirena</i> Guenée, 1832	2	-	-
<i>Caradrina kadenii</i> Freyer, 1836	-	-	-
<i>Ceratistis rubricosa</i> (Denis & Schiffmüller), 1775	4	2	-
<i>Charanyca aptebecki</i> (Rebel, 1901)	8	9	-
<i>Charanyca ferruginea</i> (Esper, 1785)	34	29	-
<i>Charanyca trigonimica</i> (Hufnagel, 1766)	-	-	-
<i>Chersotis marginatacea</i> (Villers, 1789)	3	2	-

Species	Phenology	Total															
		SL_E1	SL_E2	SL_E3	SL_D1	SL_D2	SL_D3	SL_C1	SL_C2	SL_C3	SL_B1	SL_B2	SL_B3	SL_A1	SL_A2	SL_A3	SL_A4
<i>Chersotis rectangula</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	4	VII-VIII	IX	
<i>Cleoranthus hyperici</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	1	VII-VIII		
<i>Cleoranthus scorpiaceus</i> (Esper, 1789)	-	-	-	-	-	-	-	-	-	-	-	-	-	38	IX-X		
<i>Colocasia esculenta</i> (Limaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	20	IV-VII		
<i>Conisania luteago</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	104	V-VII		
<i>Conisania erythrocephala</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	5	IV-VI	X	
<i>Conista rugosae</i> (Failla-Tedaldi), 1890	-	-	-	-	-	-	-	-	-	-	-	-	-	1	IV	XI	
<i>Cucullia caninae</i> Rambur, 1833	-	-	-	-	-	-	-	-	-	-	-	-	-	3	XI		
<i>Cucullia lanecolata</i> (Vilhers, 1789)	-	-	-	-	-	-	-	-	-	-	-	-	-	44	IV-V	XI	
<i>Conista rubiginosa</i> (Scopoli), 1763	-	-	-	-	-	-	-	-	-	-	-	-	-	3	IV	V	
<i>Conista torrida</i> (Lederer), 1857	-	-	-	-	-	-	-	-	-	-	-	-	-	8	IV-VI	X	
<i>Conistra vaccinii</i> (Limaeus, 1761)	-	-	-	-	-	-	-	-	-	-	-	-	-	24	IV-X	XI	
<i>Conistra veronicae</i> (Hübner, [1813])	-	-	-	-	-	-	-	-	-	-	-	-	-	2	IV		
<i>Cucullia caninae</i> Rambur, 1833	-	-	-	-	-	-	-	-	-	-	-	-	-	2	VI		
<i>Diaclytrosis chrysitis</i> (Limaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	5	IV-V		
<i>Diasysphila templi</i> (Thunberg), 1792	-	-	-	-	-	-	-	-	-	-	-	-	-	8	XI		
<i>Diastria mendica</i> (Fabricius, 1775)	-	-	-	-	-	-	-	-	-	-	-	-	-	7	VI-VII	X	
<i>Dichagyris nigricans</i> (Hofner, 1888)	-	-	-	-	-	-	-	-	-	-	-	-	-	183	VI-VII	X	
<i>Dichagyris signifera</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	2	VI-VII	X	
<i>Diloba aenescens</i> (Limaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	2	VI-VII	X	
<i>Dryobates monachroma</i> (Esper, 1790)	-	-	-	-	-	-	-	-	-	-	-	-	-	25	X-XI		
<i>Dryobates tenera</i> (Esper, 1789)	-	-	-	-	-	-	-	-	-	-	-	-	-	1	X		
<i>Egira conspicillaris</i> (Limaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	3	X		
<i>Epilicta linguisca</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	1	V		
<i>Episema glauca</i> (Esper, 1789)	-	-	-	-	-	-	-	-	-	-	-	-	-	11	VII-X		
<i>Euphorbiae depuncta</i> (Limaeus, 1761)	-	-	-	-	-	-	-	-	-	-	-	-	-	8	IX-X		
<i>Euplexia lucipara</i> (Limaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	50	VII-X		
<i>Euxoa nigricans</i> (Limaeus, 1761)	-	-	-	-	-	-	-	-	-	-	-	-	-	2	VII-X		
<i>Euxoa obesula</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	3	VIII-IX		
<i>Euxoa tritici</i> (Limaeus, 1761)	-	-	-	-	-	-	-	-	-	-	-	-	-	3	VI		
<i>Hadena conjica</i> (Hufnagel), 1766	-	-	-	-	-	-	-	-	-	-	-	-	-	34	V-VII		
<i>Hadena albinotula</i> (Borkhausen, 1792)	-	-	-	-	-	-	-	-	-	-	-	-	-	45	V-VII		
<i>Hadena magnifica</i> (Boisduval, 1829)	-	-	-	-	-	-	-	-	-	-	-	-	-	3	V-VII		
<i>Hadena perplexa</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	49	IV-V		
<i>Hecatera bicolorata</i> (Hufnagel), 1766	-	-	-	-	-	-	-	-	-	-	-	-	-	5	V-VII		
<i>Hecatera conica</i> (Limaeus, 1761)	-	-	-	-	-	-	-	-	-	-	-	-	-	21	IV-V		
<i>Hecatera magnifica</i> (Hufnagel), 1766	-	-	-	-	-	-	-	-	-	-	-	-	-	8	V-VII		

Species	Total	Phenology	
		SL_E3	SL_E2
<i>Helicoverpa armigera</i> (Hübner, 1808)	-	-	3
<i>Heliothis peltigera</i> (Denis & Schiffermüller, 1775)	-	-	2
<i>Hoplodrina ambigua</i> (Denis & Schiffermüller, 1775)	-	-	17
<i>Hoplodrina octogenaria</i> (Geze, 1781)	-	-	105
<i>Hoplodrina superstes</i> (Ochsenheimer, 1816)	-	-	7
<i>Lacanobia contigua</i> (Denis & Schiffermüller, 1775)	-	-	6
<i>Lacanobia solanaea</i> (Linnaeus, 1758)	-	-	12
<i>Lacanobia w-latinum</i> (Hufnagel, 1766)	-	-	4
<i>Lasiomysia proxima</i> (Hübner, [1809])	-	-	2
<i>Lithophane ornitopus</i> (Hufnagel, 1766)	-	-	1
<i>Lithophane socia</i> (Hufnagel, 1766)	-	-	1
<i>Litolagia lienosia</i> (Haworth, 1809)	-	-	1
<i>Luperina dumerilii</i> (Duponchel, 1826)	-	-	3
<i>Luperina rubella</i> (Duponchel, 1835)	-	-	2
<i>Luperina testacea</i> (Denis & Schiffermüller, 1775)	-	-	2
<i>Macdunnoughia confusa</i> (Stephens, 1850)	-	-	1
<i>Mamestra brassicae</i> (Linnaeus, 1758)	-	-	1
<i>Mesapamea secalis</i> Remm, 1983	-	-	1
<i>Mesapamea secalis</i> (Linnaeus, 1758)	-	-	1
<i>Mesogonia oradina</i> (Hübner, [1803])	-	-	1
<i>Mesoligia furtuncula</i> (Denis & Schiffermüller, 1775)	-	-	1
<i>Mythimna albitincta</i> (Denis & Schiffermüller, 1775)	-	-	3
<i>Mythimna conigera</i> (Denis & Schiffermüller, 1775)	-	-	4
<i>Mythimna ferrago</i> (Fabricius, 1787)	-	-	1
<i>Mythimna impara</i> (Hübner, [1808])	-	-	16
<i>Mythimna albipuncta</i> (Denis & Schiffermüller, 1775)	-	-	2
<i>Mythimna separata</i> (Rambur, 1829)	-	-	1
<i>Mythimna stictula</i> (Treitschke, 1835)	-	-	1
<i>Mythimna unipuncta</i> (Haworth, 1809)	-	-	3
<i>Noctua viellina</i> (Hübner, [1808])	-	-	1
<i>Noctua comes</i> Hübner, [1813]	-	-	1
<i>Noctua fambrinata</i> (Schreber, 1759)	-	-	1
<i>Noctua interposita</i> (Hübner, 1790)	-	-	1
<i>Noctua janthe</i> (Borkhausen, 1792)	-	-	1
<i>Noctua pronuba</i> Linnaeus, 1758	-	-	2
<i>Nycobrya muralis</i> (Forster, 1771)	-	-	1
<i>Ochropleura leucogaster</i> (Freyer, 1831)	-	-	1
<i>Ochropleura plecta</i> (Linnaeus, 1761)	-	-	1
<i>Oligia strigilis</i> (Linnaeus, 1758)	-	-	1
<i>SL_A1_2015</i>	1	4	3
<i>SL_A2_2015</i>	-	-	1
<i>SL_A3_2015</i>	-	-	1
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<i>SL_C2</i>	-	-	1
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<i>SL_F281</i>	-	-	1
<i>SL_F282</i>	-	-	1
<i>SL_F283</i>	-	-	

Species	SL_A1_2015	SL_A2_2015	SL_A3_2015	SL_A1_2016	SL_A2_2016	SL_A3_2016	SL_C1	SL_C2	SL_C3	SL_D1	SL_D2	SL_D3	SL_E1	SL_E2	SL_E3	TelI	Phenology		
<i>Oligia versicolor</i> (Börkhausen, 1792)	-	3	-	1	4	1	-	1	-	-	-	-	-	-	-	14	VI-VII		
<i>Orthosia corsasi</i> (Fabricius, 1775)	-	-	3	-	7	-	-	-	-	-	-	-	2	4	4	20	IV-V		
<i>Orthosia cruda</i> (Denis & Schiffermüller), 1775	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	IV			
<i>Orthosia gothica</i> (Linnaeus, 1758)	-	-	16	12	35	2	11	13	-	-	1	2	1	8	12	7	IV		
<i>Orthosia incerta</i> (Hufnagel, 1766)	-	-	-	-	1	-	-	-	-	-	1	1	-	1	2	6	IV		
<i>Orthosia populata</i> (Fabricius, 1775)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	IV		
<i>Pachetra sagittigera</i> (Hufnagel, 1766)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	472	V-VII		
<i>Panolis flammea</i> (Denis & Schiffermüller), 1775	-	53	19	23	60	11	32	9	3	1	49	32	25	50	52	15	9	V-VI	
<i>Peridroma saucia</i> (Hübner, 1808)	-	-	-	-	11	47	16	-	-	1	-	2	7	2	16	25	23	V-VII, IX	
<i>Phlogophora meticulosa</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	V	
<i>Plusiodonta chionanthi</i> (Tauscher, 1809)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	VII	
<i>Polia nebulaosa</i> (Hufnagel, 1766)	-	6	1	1	2	1	12	-	-	8	15	-	-	-	-	-	48	VII-VIII	
<i>Polymixis polygnia</i> (Linnaeus, 1761)	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	3	VIII-IX	
<i>Polymixis serpentina</i> (Treitschke, 1825)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	X	
<i>Sphodoptera exigua</i> (Hübner, 1808)	-	-	-	-	3	-	-	-	-	-	-	-	-	-	2	1	-	6	IV
<i>Stiblia falliae</i> Püngeler, 1918	-	5	19	-	5	3	6	1	-	8	12	2	-	-	6	4	2	73	VIII-IX
<i>Subacronicta megacephala</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	2	VII-VIII	
<i>Teinopithecus olivina</i> (Herrich-Schäffer, 1852)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	VI	
<i>Thalpophila matra</i> (Hufnagel, 1766)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	IX	
<i>Tholera decinalis</i> (Podl., 1761)	-	-	-	-	1	-	-	-	-	4	2	7	4	1	1	1	2	26	IX-X
<i>Thliocera aurago</i> (Denis & Schiffermüller), 1775	2	2	3	-	1	-	-	1	-	-	-	-	-	-	-	-	9	X	
<i>Trichoplusia ni</i> (Hübner), 1803	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	V-VI	
<i>Trichoplusia flammea</i> (Esper, 1785)	1	4	7	1	3	16	-	-	-	-	-	-	1	-	12	11	17	73	X-XI
<i>Valeriana oleaginea</i> (Denis & Schiffermüller), 1775	-	-	-	-	2	1	2	-	-	-	-	-	1	-	2	-	8	IV	
<i>Xanthia icteritia</i> (Hufnagel, 1766)	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	3	IX-X	
<i>Xanthia rutililla</i> (Esper, 1791)	-	-	-	-	2	-	1	-	-	-	-	-	1	-	2	5	8	IV	
<i>Xanthia togata</i> (Esper, 1788)	-	-	-	-	1	-	-	-	-	-	-	-	1	-	1	-	5	IX-X	
<i>Xestia bojani</i> (Denis & Schiffermüller), 1775	-	1	1	-	1	1	7	-	1	5	-	-	-	-	-	-	18	VII-IX	
<i>Xestia castanea</i> (Esper, 1798)	-	4	2	-	-	3	-	1	-	-	-	-	-	-	9	8	4	34	IX-X
<i>Xestia c-nigrum</i> (Linnaeus, 1758)	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	VII-VIII
<i>Xestia stigmatica</i> (Hübner, 1813)	-	17	2	-	-	-	-	1	4	-	-	2	17	-	-	-	1	V	
<i>Xestia triangulum</i> (Hufnagel, 1766)	5	4	1	-	4	1	33	13	1	11	16	-	1	2	1	1	1	95	VI-VIII
<i>Xestia xanthographa</i> (Denis & Schiffermüller), 1775	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	IX	
NOLIDAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Nolacucullarella</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
EREBIDAE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<i>Arctia caja</i> (Linnaeus, 1758)	-	-	-	-	1	-	1	-	1	2	1	1	-	-	-	-	6	VII-VIII	
<i>Arctia villica</i> (Linnaeus, 1758)	7	1	10	1	1	1	-	-	-	-	-	-	-	-	-	1	2	VI, VI	

Species	Total	Phenology	
		SL_E3	SL_E2
<i>Callimorpha dominula</i> (Linnaeus, 1758)	-	-	14
<i>Calliteara pudibunda</i> (Linnaeus, 1758)	-	9	VI
<i>Catocala fraxini</i> (Linnaeus, 1758)	-	18	IX-X
<i>Catocala nymphagoga</i> (Esper, 1787)	-	3	VII
<i>Catocala promissa</i> (Denis & Schiffermüller, 1775)	-	-	VII
<i>Cybosia mesomella</i> (Linnaeus, 1758)	-	-	17
<i>Diacrisia sannio</i> (Linnaeus, 1758)	-	-	VI-VII
<i>Diaphorina mendica</i> (Clerck, 1759)	-	-	21
<i>Dysauxes ancilla</i> (Linnaeus, 1767)	-	-	V-VI
<i>Dysauxes agita</i> (Linnaeus, 1767)	-	-	VII-VIII
<i>Eilema caniola</i> (Hübner, [1881])	-	-	V-VIII, X
<i>Eilema complana</i> (Linnaeus, 1758)	-	-	VI-VIII
<i>Eilema hirticola</i> (Zincken, 1817)	-	-	VI-VII
<i>Eilema pygmaeola</i> (Doubleday, 1847)	-	-	VI-VII
<i>Eublemma viridula</i> (Guenée, 1841)	-	-	VII
<i>Euplagia quadripunctaria</i> (Poda, 1761)	-	-	VIII
<i>Euprotocis chrysorrhoea</i> (Linnaeus, 1758)	-	-	VII
<i>Hypena obsoletalis</i> (Hübner, [1813])	-	-	V
<i>Hypena proboscialis</i> (Linnaeus, 1758)	-	-	V-XI
<i>Hypophora testudinaria</i> (Fourcroy, 1785)	-	-	VI-VII
<i>Idaea calyania</i> (Denis & Schiffermüller, 1775)	-	-	VII
<i>Leucania salicis</i> (Linnaeus, 1758)	-	-	VII
<i>Lithosia quadra</i> (Linnaeus, 1758)	-	-	VII-X
<i>Lygephila craccae</i> (Denis & Schiffermüller, 1775)	-	-	VII-X
<i>Lygephila proxax</i> (Hübner, [1813])	-	-	VI
<i>Lymantria monacha</i> (Linnaeus, 1758)	-	5	IV
<i>Minucia lutaris</i> (Denis & Schiffermüller, 1775)	-	-	VII-VIII
<i>Orneria rubra</i> (Denis & Schiffermüller, 1775)	-	-	VI-X
<i>Scolopierix libatrix</i> (Linnaeus, 1758)	-	-	VI-X
<i>SL_A1_2015</i>	7	2	1
<i>SL_A2_2015</i>	1	1	1
<i>SL_A3_2015</i>	1	1	1
<i>SL_A1_2016</i>	1	1	1
<i>SL_A2_2016</i>	1	1	1
<i>SL_A3_2016</i>	1	1	1
<i>SL_B1</i>	1	1	1
<i>SL_B2</i>	-	-	-
<i>SL_B3</i>	-	-	-
<i>SL_C1</i>	-	-	-
<i>SL_C2</i>	-	-	-
<i>SL_C3</i>	-	-	-
<i>SL_D1</i>	-	-	-
<i>SL_D2</i>	1	1	1
<i>SL_D3</i>	-	-	-
<i>SL_E1</i>	-	-	-
<i>SL_E2</i>	-	-	-
<i>SL_E3</i>	-	-	-