

NMNH, BAS

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Project

*State and prospects of the *Castanea sativa* population in Belasitsa mountain: climate change adaptation; maintenance of biodiversity and sustainable ecosystem management.*

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Report

Biodiversity of butterflies and moths (Insecta: Lepidoptera: Macrolepidoptera) in chestnut forests, Belassitsa Mountain

(Preliminary report)

**Biodiversity of butterflies and moths (Insecta: Lepidoptera:
Macrolepidoptera) in chestnut forests, Belassitsa Mountain
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1. Previous studies

On species richness order Lepidoptera is on second place after this of beetles. They inhabit almost any kind of habitats, including fresh water where their larvae live. According to HEPPNER (1998) 146565 Lepidoptera species are described so far. According to different authors and taking into account the species described recently, the number of Lepidoptera species at present should be about 176000. In Bulgaria the number of the reported species for the country is 2860 (BESHKOV, 1993), about 1600 of which belong to the group under present study – Macrolepidoptera. Although they are on second place in species richness in Bulgaria after the beetles, the number of reported Lepidoptera species in some types of ecosystems can be even higher because of using different contemporary collecting methods and intensive research.

The faunistic data for Lepidoptera from the Bulgarian sector of the Belassitsa mountain are scattered among numerous publications of many Bulgarian authors. In the old literature there are some data for Belassitsa Mts, but almost all of them are without precise collecting localities. Most of the data are from the high, woodless part of the mountain. Scarce data from the forest zone can be found as well, but they are mostly from Belassitsa

Chalet, the frontier posts, or even from Petrich town and its surroundings. The scarcity of information about the Lepidoptera in the chestnut forest is due to the very limited electricity sources for collecting moths on light – electricity was available only on the frontier posts and Belassitsa chalet and no one used generator, light traps and sugar bites before our investigation.

First data for the Lepidoptera fauna of Belassitsa Mts can be found in the articles of DRENOWSKY (1920), DRENOWSKI (1921), BURESCH & ILTSCHEW (1921). All together data for the Bulgarian part of Belassitsa Mts exist in more than 30 articles published in Bulgaria and abroad. Most of these data however are from the woodless part of the mountain or without accurate localities and the number of the reported species is limited. The only articles dedicated to Belassitsa mountain are those of SLIVOV (1988a, 1988b) and of SLIVOV & NESTOROVA (1988). The total number of the reported Macrolepidoptera species in these three articles is 720. In the first two articles their distribution is given in belts – lower forest belt, middle forest belt, upper forest belt and subalpine belt. In the article of SLIVOV & NESTOROVA (1988) the following altitudinal zones were used: below 800m, from 800m to 1200m, from 1200m to 1600m and above 1600m.

According to ABADJIEV & BESHKOV (2007) Belassitsa Mts is one of the Prime Butterfly Areas in Bulgaria with 3 species from 92/43 EEC Habitat Directive and 20 target butterfly species on a national level. List with other important species is included there as well. Most of the data there also originated from woodless part of the mountain and are without localities.

2. Material and methods

The present investigation covers the chestnut forest situated mainly in the lower parts of the mountain in an altitude up to about 800 meters above sea level. The material was collected during five field trips (each of them with duration of 4 days) in the period March – October 2010 from 8 experimental plots plus one additional.



Regularly examined plots are numbers 3, 6, 9, 10, 11, 12, 13 and 25. From each plot material was collected for five nights as follows: in March, June, July, August and October. Additional material was collected once in a place below and between plots 13 and 25. There was collected material from one night in November as well.

In plots 3, 11 and 13 an 8W light trap with one “black” tube was used. Source of electricity was 12V 9Ah battery.

In plots numbers 9, 12 and 25 2 x 8W light trap with one “black” and one “actinic” tubes were used. Source of electricity was 12V 9Ah battery. Batteries were charged by generator or from inverter from the car battery. Lamps were switched on



at sunset and switched off automatically at sunrise by photo elements and electronics. Tubes were mounted vertically above funnel opened in pot with egg-cardboard. Chloroform was used as a chemical agent in the pot.

In plots numbers 6, 10 and in the spot below between plots 13 and 25 a 220V generator was used as source of electricity (the use of such heavy equipment was possible due to the higher accessibility of these plots).

Tent-like trap with 160W MVL (Mercury vapor lamp) on its top and 24W energy save 10% UV (desert light) “reptilia” lamp (late on 24W energy save black lamp or



80W black lamp) above the funnel of the pot with egg-cardboard and chloroform down of

the tent were used. In the middle of the tent 1 x 8W “black light” tube was used during whole night.

Mixture of red wine and sugar 1:1 on about 200m long cord or on three sponges fixed about 1-1.5m above the ground were used for attracting moths in plots 6, 10 and below 25. They



were checked regularly in the night.

Butterflies were collected at a day time with entomological net or simply were observed.

The collected material was identified in the field and recorded separately as males and females per collecting method. Part of material which was impossible to identify in the field or important species were needed and collected for further examination.

Cameral work consisted of two main tasks. First, the needed material was moisten and fixed on spreading boards. After it got dry it was labeled. Second, the material was identified. Large amount of specimens from different and difficult

genera (*Eupithecia*, *Idaea*, *Egira*, *Oligia*, etc.) were identified after examination of their genital armature, both female and male including everted vesicas. For this purpose insects first were dissected, after that last abdominal segments were boiled 4-9 minutes in 10% KOH, cleaned in water and isopropanol, vesicas were everted in alcohol and mounted on paper or on a glass in euparal.

3. Results

4248 specimens of Lepidoptera have been examined and identified to species level (Appendix 1). For each examined specimen are taken notes of the collected locality, weather condition, method of collecting, sex and additional remarks if needed.

3.1. Species composition

The identified butterflies and moths belong to 334 species of 19 families. No new species for Bulgaria were found, but many species are new for Belassitsa mountain. One species (*Noctua janthe*) is confirmed for Bulgaria. Several species (*Brachyonicha nubeculosa*, *Pseudoxestia apfelbecki*, *Ectropis extersaria*, etc.) were known from single localities and with single specimens only before our study. We found them numerous in several plots.

3.2. Analysis of the faunal data

The highest number of specimens was found in plot № 6 (992). Plot 10 with 714 specimens follows. Before applying statistics these results can be explained with the collecting methods – the tent-like trap is the most effective trap. This is confirmed by the highest number of collected individuals from one species for one night, which is presented below. Smaller number of species was found in plots № 11 (172), № 13 (271) and № 3 (345). This also can be explained with the collecting method – light trap with only one lamp. Small number of collected individuals (300) in the place below between plots 13 and 25 can be explained with not always correctly counted specimens because this point was only additional one. Data from this place is treated as a bonus. This is confirmed with the similar situation with the number of the collected species. Higher number of species was established in plot No 6 (165). Plot 10 (148) and the place down between plots 13 and 25 (138) follow closely. Smallest number of species is recorded at plot No 11 (58). In plot 13 a total of 69 species are established, in plot 3 – 96 species. In the plots where light traps with two

different tubes were used the number of the species is significantly higher – plot 25 (118 species), plot 9 (109 species), plot 12 (103 species).

The number of the species from the different families is not given here, because the different families are presented with different numbers of species. As a rule, the family Noctuidae is the most numerous one, followed by Geometridae and Arctiidae. Most numerous species with their total numbers are given below:

Zanclognatha lunalis (Noctuidae) – 313
Peribatodes rhomboidaria (Geometridae) – 259
Orthosia cerasi (Noctuidae) - 212
Eilema lurideola (Arctiidae) – 204
Campaea margaritata (Geometridae) – 173
Orthosia githica (Noctuidae) – 168
Miltochrysta miniata (Arctiidae) – 135
Paracolax tristalis (Noctuidae) – 128
Chlorolystis v-ata (Geometridae) - 119
Orthosia munda (Noctuidae) – 87
Pseudoxestia apfelbecki (Noctuidae) – 85
Craniophora ligustri (Noctuidae) – 84

Each of these taxa was established with more than 80 specimens in total. Most numerous species per night at a plot were:

Zanclognatha lunalis (Noctuidae) – 125 (Plot 25)
Orthosia cerasi (Noctuidae) – 122 (Plot 6)
Orthosia githica (Noctuidae) – 108 (Plot 6)
Campaea margaritata (Geometridae) – 97 (Plot 6)
Orthosia munda (Noctuidae) – 64 (Plot 6)

According to the taxonomic structure of the 334 Lepidoptera species found, the chestnut forests of the Belasitsa Mt. seem to be relatively poor in terms of Lepidoptera diversity. All data were collected using almost all possible methods of collecting in 9 points 21 nights. One of the reasons for such a relatively low number of recorded species is that the plots were fixed and placed in homogenous habitat. Our impression is that faunal complex of butterflies and moths is boreal with mixture of Mediterranean and mountain elements. Dark *Castanea* forests turned out very poor of butterflies, very few species were

observed. The only plot with more species was No 12, because of the clearing just above it. For moths with our preliminary results we can say that No 12 and No 9 (particularly No 25) also show different species composition because of the clearing nearby and of presence of *Quercus* sp. there.

4. Species of conservation importance

Table 1. List of the species of conservation importance according to the European and Bulgarian legislation. Abbreviations used:

EC 92/43 Habitat Directive, Annex II: - animal and plant species of community interest whose conservation requires the designation of special areas of conservation.

CORINE - CORINE BIOTOPES, main list +; * - offered and used for Bulgaria

PBA - Prime Butterflies Area in Bulgaria, target species

BPA – Biodiversity Protection Act, appendices 2 and 3

Endem. – Endemics and Subendemics: BL (Balkan); B (Bulgarian); SE (subendemics)

BBD – Bulgaria’s Biological Diversity, Conservation Status and Needs Assessment.

Rare – rare species with very few localities in Bulgaria and with very few localities in Europe outside Bulgaria

Species	EC 92/43	CORINE	PBA	BPA	Endem.	BBD	Rare	Study plots
<i>Neptis sappho</i>		+	+					13/25
<i>Calocucullia celsiae</i>							+	12
<i>Caradrina suscianja</i>		*			SE	+	+	13
<i>Pseudoxestia apfelbecki</i>		*			SE		+	3, 6, 10, 25, 13/25
<i>Divaena haywardi</i>					SE		+	9
<i>Euplagia quadripunctaria</i>	II			+				6, 10, 11, 12, 25/13

Six species of conservation importance are established in the studies plots (Table 1). Only one species (*Euplagia quadripunctaria*) is protected by EC 92/43 Habitat Directive, Anex II: animal and plant species of community interest whose conservation requires the designation of special areas of conservation. It is not rare, recorded in 5 plots. Species from Bern Convention and Red Lists are not established at all. Perhaps the reason is that most species from these documents are butterflies, which are not well present in forests. One of the species (*Pseudoxestia apfelbecki*) which is very local and rare everywhere in its range (Balkan Peninsula and Italy) was found abundant in deep old forest as on plot No 6 were recorded 72 specimens for one night both on sugar and lamp, which is record. There are some more species rare in Bulgaria with very few localities – *Ectropis extersaria*, *Eupithecia oxycedrata*, *Dryobota labecula*, *Dryobotodes tenebrosa*, *Brachyonicha nubeculosa*, *Noctua janthe*, etc. They are not included in the table above because they are widespread outside Bulgaria.

5. Habitat threats

There are several main threats for chestnut habitats in the Belasitsa Mountain:

- Forrest cutting.
- Replacement of broadleaved forest with coniferous ones; planting monocultivations.
- Road construction.
- Fires.
- Change of river and stream beds.
- Disposal of litter (garbage) in proximity to running waters, roads, and chalets.
- Collecting of Chestnuts seeds in harmful way for trees and increased human presence in the chestnut forest in late autumn.
- Expansive (*Robinia pseudoacacia*, *Amorpha fruticosa*, etc.) and ruderal plants near the roads and clearings.

6. Recommendations for habitat preservation

- Prohibition on forests cuttings in areas inhabited by species of conservation importance.
- Prohibition against rotting wood (both standing and lying) destruction.
- Prohibition on replacement of primary forest in return for plantations in areas inhabited by species of conservation significance.
- Prohibition on deprivation of forest soil and forest leaf litter.
- Decreasing risk of fires as a result of human activities.
- Prohibition against all manner of buildings in areas inhabited by species of conservation significance.
- Replacement of not native trees and plants (*Robinia pseudoacacia*, *Amorpha fruticosa*, *Abies*, etc.) with typical ones for the mountain.

7. References

- ABADJIEV S. 2001. An Atlas of the Distribution of the Butterflies in Bulgaria (Lepidoptera: Hesperioidea & Papilionoidea). *Zoogeographica Balcanica*, Pensoft, Sofia-Moskow, **1**: 335 pp.
- ABADJIEV, S. & S. BESHKOV, 2007. *Prime Butterfly Areas in Bulgaria*. Pensoft Series Faunistica 69, Pensoft Publisher, Sofia, 222pp + CD.
- BESHKOV, S. 1993. *Lepidoptera*. In: Hubenov, Z. (ed.) et al. *Insecta: Blattodea, Mantodea, Isoptera, Orthoptera, Dermaptera, Embioptera, Megaloptera, Raphidioptera, Neuroptera, Mecoptera, Hymenoptera, Trichoptera, Lepidoptera and Diptera*. – National Strategy for biodiversity conservation, M. Sakalyan & K. Maini (eds). Vol. **1**: 366-380; 399-402. The Biodiversity Support Program c/o WWF.
- BESHKOV, S. 1995. A contribution to the knowledge of the Bulgarian Lepidoptera fauna (*Lepidoptera: Macrolepidoptera*). *Phegea* **23(4)**: 201-218.
- BESHKOV S. 2000. An Annotated Systematic and Synonymic Check List of the Noctuidae of Bulgaria (Insecta: Lepidoptera: Noctuidae). - *Neue Entomologische Nachrichten*, **49**: 300 pp.
- BESHKOV, S. 1998B. *Lepidoptera*. In: HUBENOV (Ed.) et al.: *Insects of Bulgaria, Part 2: Blattodea, Mantodea, Isoptera, Orthoptera, Dermaptera, Embioptera, Megaloptera, Raphidioptera, Neuroptera, Mecoptera, Hymenoptera, Trichoptera, Lepidoptera, and Diptera*. - *Bulgaria's Biological Diversity: Conservation Status and Needs Assessment*, Volumes I and II. 1998. CURT MEINE, ed. Washington, D.C.: Biodiversity Support program: 236-243; 255-257.
- BESHKOV, S., A. GRASSI & A. ZILLI, 2004. *Caradrina (Paradrina) suscianja* (VON MENTZER) in Central Italy (Lepidoptera, Noctuidae). *Esperiana* **10**: 691-692 + Pl.27, fig. 16
- BURESCH, I. & D. ILTSCHKEW, 1921. Driter Beitrag zur Erforschung der Lepidopterenfauna von Trazien und Mazedonien. *Travaux de la Société Bulgare des Sciences Naturelles* **9**: 61-86.
- BURESCH I., TULESCHKOW K. 1929. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. I. Rhopalocera. *Mitt. Kgl. Naturwiss. Inst. Sofia*, **2**: 145-250. (In Bulgarian).
- BURESCH I., TULESCHKOW K. 1930. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. II. Sphingidae und Bombyces. *Mitt. Kgl. Naturwiss. Inst. Sofia*, **3**: 145-248. (In Bulgarian).
- BURESCH I., TULESCHKOW K. 1932. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. III (1). Noctuiiformes. *Mitt. Kgl. Naturwiss. Inst. Sofia*, **5**: 67-144. (In Bulgarian).
- BURESCH I., TULESCHKOW K. 1935. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. III (2). Noctuiiformes (Fortsetzung). *Mitt. Kgl. Naturwiss. Inst. Sofia*, **8**: 113-171. (In Bulgarian).

- BURESCH I., TULESCHKOW K. 1936. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. IV. Geometriformes. *Mitt. Kgl. Naturwiss. Inst. Sofia*, **9**: 167-240. (In Bulgarian).
- BURESCH I., TULESCHKOW K. 1937. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. IV (2). Geometriformes (Fortsetzung). *Mitt. Kgl. Naturwiss. Inst. Sofia*, **10**: 121-184. (In Bulgarian).
- BURESCH I., TULESCHKOW K. 1943. Die horizontale Verbreitung der Schmetterlinge (Lepidoptera) in Bulgarien. V. Nolidae-Hepialidae. *Mitt. Kgl. Naturwiss. Inst. Sofia*, **16**: 79-188. (In Bulgarian).
- DANIEL, F. 1964. Die Lepidopterenfauna Jugoslawisch Mazedoniens. II. *Bombyces* et *Sphinges*. *Prirodonaucen muzej Skopje, Posebno izdanje* Nr. **2.**, 74 pp.
- DRENOWSKY, A. 1920. Ein Beitrag zur Schmetterlingsfauna des Pirin-, Maleschewska- und Belasitza-Gebirges in West-Thrazien. *Zeitschrift für wissenschaftliche Insektenbiologie* **15(10-12)**: 231-246; **16(1-2)**: 5-16.
- DRENOWSKI, A. 1921. Beitrag zur Lepidopteren-Fauna des Pirin-, Maleschewska- und Belasitza-Gebirges in West-Thrazien. *Z. bulg. Acad. Wissenschaften* **23**: 111-154.
- DRENOWSKI, A. 1930. In: Referate u. Mitteilungen. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **5**: 21-25.
- DRENOWSKI, A. 1934. In: Referate u. Mitteilungen. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **8**: 215-217.
- GANEV, J. 1984. Studies on *Heterocera* from Bulgaria (Lepidoptera). *Phegea* **12(2)**: 37-42.
- GANEV, J. 1985. Studies on *Heterocera* from Bulgaria - II (Lepidoptera). *Phegea* **13(3)**: 85-91.
- HEPPNER, J. B., 1998. Classification of Lepidoptera. Part 1. Introduction. Holarctic Lepidoptera 5(Supl. 1): 1-148pp.
- NESTOROVA E. 1998. Catalogus Faunae Bulgaricae 2. Lepidoptera, Geometridae. Acad. Sc. Bulg., Inst. Zool., Pensoft, Sofia-Moskow, 193 pp.
- SLIVOV, A. 1979. A Contribution to the Study on the Lepidopteral Fauna (Lepidoptera) in Bulgaria. *Acta Zoologica Bulgarica* **12**: 36-43.
- SLIVOV, A. 1988a. Studies on the Butterflies from the Groups *Bombyces* and *Sphinges* (Lepidoptera) from Belasica Mountain. In: Fauna of Southwestern Bulgaria, Part **2**. Sofia, Bulgarian Academy of Sciences: 122-130.
- SLIVOV, A. 1988b. Studies on the Species from Family *Noctuidae* (Lepidoptera) in Belasica Mountain. In: Fauna of Southwestern Bulgaria, Part **2**. Sofia, Bulgarian Academy of Sciences: 131-141.
- SLIVOV, A. & E. NESTOROVA, 1988. Butterflies (Lepidoptera, Rhopalocera) from the Belasica Mountain. In: Fauna of Southwestern Bulgaria, Part **2**. Sofia, Bulgarian Academy of Sciences: 115-122.
- THURNER, J. 1964. Die Lepidopterenfauna Jugoslawisch Mazedoniens. **1**. *Rhopalocera*, *Grypocera* und *Noctuidae*. *Prirodonaucen muzej Skopje, Posebno izdanje* Nr. **1.**, 159 pp.

- TULESCHKOV, KR. 1936. Einige für die Fauna Bulgariens neue Smetterlings-Arten. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia* **9**: 205-210.
- TULESCHKOW, KR. 1930a. In: Bulgarische Entomologische Gesellschaft: Referate und Mitteilungen. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia* **5**: 31-34.
- TULESCHKOW, KR. 1930b. Erster Beitrag zur Lepidopterenfauna der Stadt Tirnowo und ihre Umgebung. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **5**: 125-162.
- TULESCHKOW, KR. 1931. In: Bulgarische Entomologische Gesellschaft: Referate und Mitteilungen. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia* **6**: 26-28.
- TULESCHKOW, K. 1932a. In: Referate u. Mitteilungen. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **7**: 29-30.
- TULESCHKOW, K. 1932b. Für die Schmetterlingsfauna Bulgariens neue Arten gesammelt von 1928 bis 1931. *Mitteilungen der Bulgarischen Entomologischen Gesellschaft in Sofia*, **7**: 100-115.

Appendix 1. Distribution of the species of Macrolepidoptera (not in systematical order) among the examined plots (abbreviations: p – plot number; tot – total number of collected specimens; * - butterfly species, observed in day time only).

Species/plots	p3	p6	p9	p10	p11	p12	p13	p25	p13/25	Tot
1 Alsophila aescularia	0	2	0	3	0	0	0	0	0	5
2 Asphalia ruficollis	0	0	0	2	0	0	0	0	0	2
3 Lycia hirtaria	1	5	0	4	0	0	0	0	6	16
4 Drymonia ruficornis	0	1	0	1	0	0	0	0	0	2
5 Cerastis rubricosa	0	0	0	6	0	0	0	0	0	6
6 Chloroclysta citerata	0	0	0	1	0	0	0	0	0	1
7 Orthosia munda	0	64	2	13	3	0	0	3	2	87
8 Conistra vaccinii	1	15	0	0	2	1	0	2	2	23
9 Ectropis crepuscularia	1	3	0	3	3	0	0	0	1	11
10 Callocucullia celsiae	0	0	0	0	0	1	0	0	0	1
11 Orthosia gothica	7	108	16	8	4	5	2	1	17	168
12 *Lybithea celtis	0	0	1	0	0	0	0	0	0	1
13 *Nymphalis anthiopa	0	0	1	0	0	0	0	0	0	1
14 Eupsilia transversa	0	2	0	0	0	0	0	1	0	3
15 Valeria oleagina	0	7	0	6	3	0	0	1	0	17
16 Orthosia incerta	2	39	1	9	4	0	0	2	4	61
17 Conistra rubiginea	0	7	1	4	2	0	0	0	0	14
18 Conistra erythrocephala	0	6	2	0	2	0	0	1	0	11
19 Orthosia miniosa	0	2	2	0	0	1	0	0	0	5
20 Orthosia cerasi	7	122	44	18	4	5	2	5	5	212
21 Orthosia cruda	0	17	1	14	0	3	1	3	2	41
22 Phigaliohybernia marginaria	0	1	0	0	0	0	0	0	1	2
23 Egira sp.	0	1	0	0	0	0	1	0	0	2
24 Brachionycha nubeculosa	0	10	0	10	1	1	1	0	0	23
25 Spudaea pontica	0	0	0	1	0	0	0	0	0	1

26	<i>Polyploca ridens</i>	0	1	0	0	0	0	0	0	0	1
27	<i>Orthosia populeti</i>	0	1	0	0	0	1	0	0	0	2
28	* <i>Pararge aegeria</i>	0	1	0	0	0	0	0	0	1	2
29	<i>Opistograptis luteolata</i>	1	5	0	0	0	0	0	2	1	9
30	<i>Lomaspilus marginata</i>	0	1	0	0	0	0	0	0	0	1
31	<i>Xanthorrhoe fluctuata</i>	1	1	0	1	0	0	0	0	1	4
32	<i>Caradrina flavirena</i>	1	1	1	2	0	1	0	0	0	6
33	<i>Calliteara pudibunda</i>	1	2	0	0	0	1	0	0	0	4
34	<i>Phlogophora meticulosa</i>	0	2	0	0	0	0	0	0	0	2
35	<i>Charanyca trigrammica</i>	0	1	0	8	0	1	1	0	1	12
36	<i>Peribatodes correptaria</i>	0	3	0	0	0	0	0	0	0	3
37	<i>Dilina tiliae</i>	1	3	0	0	0	0	0	0	1	5
38	<i>Prodotes stolidia</i>	1	0	0	0	0	0	0	0	0	1
39	<i>Hadena albimacula</i>	1	0	0	0	0	0	0	0	0	1
40	<i>Cosmorrhoe ocellata</i>	3	2	0	1	0	0	0	3	2	11
41	<i>Epirrhoe galiata</i>	2	4	0	1	0	0	1	0	1	9
42	<i>Cabera pussaria</i>	3	0	0	0	1	0	0	0	1	5
43	<i>Aplocera plagiata</i>	1	0	0	0	0	1	0	0	0	2
44	<i>Caradrina clavipalpis</i>	0	1	1	0	0	0	0	0	0	2
45	<i>Campaea margaritata</i>	27	97	1	6	7	9	0	21	5	173
46	<i>Moma alpium</i>	0	0	1	0	0	0	0	0	0	1
47	<i>Pseudoxestia apfelbecki</i>	14	55	0	12	0	0	0	3	1	85
48	<i>Pseudoips prasinana</i>	0	16	11	6	0	1	0	4	2	40
49	<i>Egira anatolica</i>	0	8	4	0	0	0	0	0	0	12
50	<i>Axylia putris</i>	0	0	1	1	0	0	2	0	1	5
51	<i>Autographa gamma</i>	1	1	1	0	0	0	1	0	0	4
52	<i>Noctua fimbriata</i>	0	0	4	0	0	1	0	1	0	6
53	<i>Dysgonia algira</i>	0	1	0	0	0	0	0	1	0	2
54	<i>Peribatodes rhomboidaria</i>	25	42	27	16	16	31	18	79	5	259
55	<i>Notodonta dromedarius</i>	0	2	0	0	0	0	0	0	0	2
56	<i>Catocala elocata</i>	0	1	1	0	0	0	0	0	0	2
57	<i>Diaphora luctuosa</i>	0	1	0	0	0	0	0	0	0	1
58	<i>Schrankia taenialis</i>	0	0	0	0	0	0	0	1	9	10
59	<i>Catocala nupta</i>	0	1	1	0	0	0	0	0	1	3
60	<i>Xestia stigmatica</i>	0	2	0	0	0	1	0	2	0	5
61	<i>Stauropos fagi</i>	0	3	2	1	0	0	0	0	2	8
62	<i>Malacosoma neustrium</i>	0	3	0	0	0	0	0	0	0	3
63	<i>Harpiya milhauseri</i>	0	1	0	0	0	0	0	0	0	1
64	<i>Drymonia melagona</i>	1	3	0	1	0	0	0	0	0	5
65	<i>Sideridis rivularis</i>	2	1	1	1	1	0	1	1	3	11
66	<i>Cosmia trapezina</i>	1	2	2	8	0	3	0	6	6	28
67	<i>Sapodoptera exigua</i>	0	0	0	1	0	0	0	0	0	1
68	<i>Cymatophoroma diluta</i>	0	2	0	0	0	0	0	0	0	2
69	<i>Dryobota labecula</i>	0	1	0	1	0	0	0	0	0	2
70	<i>Xanthia citrigo</i>	0	1	0	0	0	0	0	0	0	1
71	<i>Blepharita satura</i>	0	9	0	3	6	5	0	0	0	23
72	<i>Meganephria bimaculosa</i>	0	1	0	0	0	0	0	0	0	1
73	<i>Rhodometra sacraria</i>	0	1	0	0	0	0	0	0	0	1
74	<i>Nomophila noctuella</i>	0	1	1	0	0	0	0	0	0	2
75	<i>Chrysodeixis chalcytes</i>	0	1	0	1	0	0	0	0	1	3
76	<i>Aporophyla nigra</i>	0	1	0	0	0	0	0	0	1	2
77	<i>Abraxas sylvata</i>	0	0	0	0	0	0	0	0	2	2

78	<i>Conistra ligula</i>	0	1	0	0	0	0	0	0	0	1
79	<i>Dryobotodes tenebrosa</i>	0	1	0	1	0	0	0	0	1	3
80	<i>Noctua pronuba</i>	2	2	13	0	0	1	0	0	0	18
81	<i>Pennithera firmata</i>	0	0	2	0	0	0	0	0	0	2
82	<i>Agrochola litura</i>	0	0	2	0	0	1	0	0	0	3
83	<i>Agrochola macilenta</i>	0	2	1	1	0	0	0	0	0	4
84	<i>Dichonia aeruginea</i>	0	0	1	0	0	0	0	0	0	1
85	<i>Allophytes oxyacanthae</i>	2	3	0	9	1	0	0	0	1	16
86	<i>Colotois pennaria</i>	1	1	0	0	0	0	0	0	0	2
87	<i>Xanthia aurago</i>	1	1	0	0	0	0	0	0	1	3
88	<i>Agrotis ipsilon</i>	1	3	5	2	0	1	0	0	2	14
89	<i>Dystroma truncata</i>	1	0	0	3	0	0	0	0	0	4
90	<i>Dryobotodes carbonis</i>	0	0	0	1	0	0	0	0	0	1
91	<i>Diloba caeruleocephala</i>	0	2	0	1	0	0	0	0	0	3
92	<i>Episema tersa</i>	1	0	0	0	0	1	0	0	0	2
93	<i>Polypogon strigilata</i>	0	1	0	1	0	1	0	1	0	4
94	<i>Cleorodes lichenaria</i>	1	0	0	0	0	0	0	0	0	1
95	<i>Ennomos quercinaria</i>	1	1	0	1	0	0	0	0	0	3
96	<i>Arctornis l-nigrum</i>	0	4	1	0	1	0	0	1	1	8
97	<i>Peribatodes umbraria</i>	9	5	2	1	2	8	1	6	1	35
98	<i>Lymantria monacha</i>	5	8	4	0	1	0	0	1	1	20
99	<i>Catocala sponsa</i>	1	0	0	0	0	0	0	0	0	1
100	<i>Ectropis bistortata</i>	1	1	0	0	0	0	0	4	1	7
101	<i>Crocallis tuscearia</i>	0	0	0	0	0	1	0	0	0	1
102	<i>Agrochola circellaris</i>	0	0	0	0	0	0	0	1	0	1
103	<i>Hydrelia flammellaria</i>	0	0	0	1	0	0	0	0	0	1
104	<i>Horisme tersata</i>	1	0	0	1	0	0	0	0	1	3
105	<i>Deilephila elpenor</i>	0	0	0	1	0	0	0	0	0	1
106	<i>Conisania luteago</i>	0	0	0	1	0	0	1	0	0	2
107	<i>Dyciela oo</i>	0	0	0	1	0	0	0	1	0	2
108	<i>Serraca punctinalis</i>	3	2	0	1	2	4	2	4	2	20
109	<i>Mythimna l-album</i>	0	0	1	1	0	0	0	0	1	3
110	<i>Hadena confusa</i>	0	0	0	1	0	5	1	1	0	8
111	* <i>Issoria lathonia</i>	0	0	0	0	0	1	0	0	0	1
112	* <i>Celastrina argiolus</i>	0	0	0	0	0	1	0	0	0	1
113	* <i>Macroglossum stellatarum</i>	0	0	0	0	0	2	0	0	0	2
114	* <i>Pieris brassicae</i>	0	0	0	0	0	1	0	0	0	1
115	* <i>Pararge roxelana</i>	0	0	0	0	0	1	0	0	0	1
116	* <i>Syntomis phegea</i>	0	0	0	0	0	1	0	0	0	1
117	<i>Minucia lunaris</i>	0	1	0	0	0	2	0	2	0	5
118	<i>Habrosyne pyrrhoides</i>	0	1	0	4	0	2	0	0	3	10
119	<i>Cryphia tephrocharis</i>	0	0	1	0	0	0	0	0	0	1
120	<i>Divaena haywardi</i>	0	0	3	0	0	0	0	0	0	3
121	<i>Caradrina aspersa</i>	0	1	1	0	0	0	0	3	0	5
122	<i>Callimorpha dominula</i>	0	0	1	0	0	0	0	0	0	1
123	<i>Rhodostrophia discopunctata</i>	0	0	1	0	0	0	0	0	1	2
124	<i>Odonestis pruni</i>	0	1	0	0	0	0	1	0	0	2
125	<i>Amphipyra berbera</i>	0	1	0	0	0	0	0	1	0	2
126	<i>Amphipyra pyramidea</i>	1	3	0	2	0	0	0	1	0	7
127	<i>Caradrina morpheus</i>	0	0	0	0	0	0	1	0	0	1
128	<i>Idaea biselata</i>	0	0	0	0	0	0	1	0	0	1
129	<i>Asthena albilata</i>	2	0	0	1	0	0	0	4	0	7

130	<i>Orectis proboscidata</i>	0	0	0	1	1	0	3	0	1	6
131	<i>Hylaea fasciaria</i>	0	1	1	0	0	0	0	0	0	2
132	<i>Puengeleria capreolaria</i>	0	2	0	0	0	0	0	0	0	2
133	<i>Epirrhoe alternata</i>	2	1	0	2	0	1	1	0	1	8
134	<i>Tephronia sepiaria</i>	1	1	0	0	0	0	0	2	9	13
135	<i>Gymnosceles ruffasciata</i>	0	0	1	1	0	0	1	5	0	8
136	<i>Noctua interjecta</i>	0	0	0	0	0	0	0	1	0	1
137	<i>Oligia versicolor</i>	0	0	0	0	0	0	0	1	0	1
138	<i>Rhodostrophia vibicaria</i>	1	0	0	0	0	0	0	0	1	2
139	<i>Hemithaea aestimaria</i>	0	0	0	1	0	0	0	0	0	1
140	<i>Tethea ocularis</i>	0	1	0	1	0	0	0	0	0	2
141	<i>Cidaria fulvata</i>	1	0	0	0	0	0	0	0	0	1
142	<i>Aedia leucomelas</i>	0	1	1	0	0	0	0	0	1	3
143	<i>Lygephila procax</i>	0	1	0	1	1	1	1	8	0	13
144	<i>Diachrysis chrysitis</i>	0	0	0	0	1	0	0	0	0	1
145	<i>Hypomecis roboraria</i>	8	4	0	11	7	2	2	9	2	45
146	* <i>Nymphalis polychloros</i>	0	0	0	0	0	0	0	0	1	1
147	<i>Pseudodeltote pygarga</i>	0	1	0	0	1	0	0	1	1	4
148	<i>Phyllodesma tremulifolia</i>	0	13	2	0	0	0	0	0	1	16
149	<i>Ascotis selenaria</i>	1	0	2	0	0	0	0	2	1	6
150	<i>Euplexia lucipara</i>	0	2	0	1	0	0	0	0	1	4
151	<i>Spilosoma luteum</i>	0	0	0	0	0	0	0	0	1	1
152	<i>Zekelita antiqualis</i>	1	0	1	0	0	0	0	1	1	4
153	<i>Atypha pulmonaris</i>	0	0	0	0	0	0	0	0	1	1
154	<i>Catocala eutychea</i>	1	1	0	1	0	5	0	2	1	11
155	<i>Eilema sororcula</i>	0	0	0	0	0	0	0	0	1	1
156	<i>Oligia strigilis</i>	0	0	0	0	0	0	0	1	0	1
157	<i>Drepana cultraria</i>	1	3	4	3	0	0	0	0	0	11
158	<i>Laothoe populi</i>	1	1	0	0	0	0	1	0	0	3
159	<i>Peridroma saucia</i>	0	2	2	2	0	0	0	0	0	6
160	<i>Lithosia quadra</i>	0	0	0	1	0	0	0	1	0	2
161	<i>Agrotis segetum</i>	0	0	1	2	0	1	0	0	1	5
162	<i>Macaria alternata</i>	0	2	0	59	0	3	1	2	0	67
163	<i>Arctia villica</i>	0	1	0	2	0	1	1	1	2	8
164	<i>Dypterygia scabriuscula</i>	0	1	0	3	0	0	1	1	2	8
165	<i>Hypena proboscidalis</i>	1	7	1	17	2	8	4	3	5	48
166	<i>Ectropis extersaria</i>	1	2	0	8	2	0	1	4	0	18
167	<i>Agrochola lychnidis</i>	0	3	0	1	0	2	0	0	1	7
168	<i>Zanclognatha lunalis</i>	4	6	0	28	20	35	90	125	5	313
169	<i>Epicnoptera silaceata</i>	1	2	1	2	0	0	0	0	2	8
170	<i>Aegle vespertalis</i>	0	0	0	1	0	0	0	0	0	1
171	<i>Xestia baja</i>	0	0	0	0	0	1	0	0	0	1
172	<i>Lygris pyraliata</i>	1	0	0	0	0	0	0	2	0	3
173	<i>Hoplodrina octogenaria</i>	0	0	0	1	0	0	0	0	0	1
174	<i>Emmelia trabealis</i>	0	3	1	1	0	0	0	0	0	5
175	<i>Electrophaes rubidata</i>	0	2	0	0	0	1	1	1	0	5
176	<i>Chloroclystis v-ata</i>	5	1	7	57	0	5	19	21	4	119
177	<i>Acasis appensata</i>	0	0	0	0	0	0	0	1	2	3
178	<i>Helicoverpa armigera</i>	1	0	41	0	1	0	0	0	1	44
179	<i>Rusina tristis</i>	1	0	0	0	0	0	0	0	0	1
180	<i>Idaea aversata</i>	6	13	9	6	3	6	2	11	5	61
181	<i>Amphipyra tragopogonis</i>	1	0	2	0	0	1	0	0	0	4

182	Marumba quercus	0	0	1	0	0	0	0	0	1	
183	Caradrina wulschlegeli	0	0	0	2	0	0	0	0	2	
184	Abrostola triplasia	0	0	0	2	0	1	0	0	5	
185	Horisme corticata	1	0	0	0	0	0	2	0	4	
186	Noctua tirrenica	0	0	5	0	0	0	0	1	6	
187	Acronicta psi	0	0	1	0	0	0	0	0	1	
188	Noctua comes	0	0	2	1	0	1	0	0	4	
189	Noctua orbona	0	0	1	0	0	0	0	0	1	
190	Agrotis exclamationis	0	2	2	0	0	1	0	0	5	
191	Craniophora ligustri	12	24	10	1	3	20	2	8	4	84
192	Catocala nymphagoga	0	0	1	0	0	0	0	0	0	1
193	Methorasa latreillei	1	0	1	0	0	1	0	1	2	6
194	Mythimna albipuncta	0	0	1	0	0	0	0	0	0	1
195	Odice suava	0	0	2	0	0	0	0	0	0	2
196	Tyta luctuosa	0	0	1	0	0	0	0	0	0	1
197	Thyatira batis	0	1	2	5	1	1	1	3	3	17
198	Cyclophora puppillaria	0	0	2	1	0	1	0	1	0	5
199	Campptogramma bilineata	1	0	1	3	0	2	0	0	0	7
200	Comibaena bajularia	0	0	0	2	0	0	0	1	0	3
201	Elaphria venustula	0	0	0	2	0	0	0	0	0	2
202	Catocala hymenaea	0	1	0	3	0	0	0	0	0	4
203	Apamea scolopacina	0	0	0	1	0	0	0	0	0	1
204	Calophasia lunula	0	0	0	1	0	0	0	0	0	1
205	Acronicta rumicis	0	0	0	0	0	0	0	1	0	1
206	Idia calvaria	13	5	0	2	8	17	6	26	0	77
207	Mythimna sicula	0	1	0	0	0	0	0	1	0	2
208	Scopula marginepunctata	0	1	2	0	0	0	0	2	0	5
209	Cilix asiatica	0	0	0	0	0	0	0	1	0	1
210	Eilema caniola	4	0	0	8	0	0	0	1	0	13
211	Tymandra commae	0	0	0	5	0	0	0	0	0	5
212	Cryphia algae	6	5	37	7	1	9	0	9	0	74
213	*Lycaena tityrus	0	0	0	0	0	1	0	0	0	1
214	*Melitaea athalia	0	0	0	0	0	1	0	0	0	1
215	*Ochlodes sylvanu	0	0	0	0	0	1	0	0	0	1
216	Caradrina suscianja	0	0	0	0	0	0	1	0	0	1
217	Eilema pygmaeola	0	0	0	1	0	0	0	0	1	2
218	Nycteola revayana	0	0	1	0	0	0	0	1	0	2
219	Idaea camparia	0	1	0	0	0	1	0	1	0	3
220	Hadena capsincola	0	0	0	0	0	0	1	0	0	1
221	Phragmatobia fuliginosa	0	0	2	0	0	1	2	0	0	5
222	Xestia c-nigrum	0	0	1	0	1	0	0	0	1	3
223	Mythimna vitellina	0	0	2	0	0	0	0	0	0	2
224	Thera variata	1	3	1	0	0	1	0	0	0	6
225	Lymantria dispar	0	0	0	8	8	6	2	1	1	26
226	Abrostola tripartita	0	2	1	2	0	0	0	0	2	7
227	Spodoptera exigua	0	0	1	0	0	0	0	0	0	1
228	Eilema lurideola	44	20	59	60	5	0	4	10	2	204
229	Eilema morosina	0	0	0	0	0	0	0	0	1	1
230	Polyphaenis sericata	0	0	0	0	0	0	0	0	1	1
231	Ourapteryx sambucaria	0	0	0	0	0	0	1	0	1	2
232	Biston betularia	0	1	3	2	1	1	0	0	1	9
233	Ochropleura plecta	0	0	0	0	0	0	0	0	2	2

234	<i>Spilosoma lubricipeda</i>	0	0	0	0	0	0	0	0	1	1
235	<i>Euproctis chryssorrhoea</i>	0	0	1	0	0	0	0	0	1	2
236	<i>Orgyia antiqua</i>	0	0	0	0	0	0	0	0	1	1
237	* <i>Polygona c-album</i>	0	0	0	0	0	0	0	0	1	1
238	* <i>Neptis sappho</i>	0	0	0	0	0	0	0	0	1	1
239	<i>Miltochrista miniata</i>	2	2	2	42	2	21	30	25	9	135
240	<i>Apoda limacodes</i>	4	0	0	0	1	1	3	2	2	13
241	<i>Paracolax tristalis</i>	6	3	3	6	7	19	23	59	2	128
242	<i>Idaea filicata</i>	1	0	0	1	0	0	2	3	0	7
243	<i>Hypena rostralis</i>	0	0	0	2	0	0	0	1	0	3
244	<i>Watsonalla binaria</i>	0	0	0	0	0	0	0	2	0	2
245	<i>Idaea deversaria</i>	0	0	0	0	0	0	1	0	24	25
246	<i>Hyloicus pinastri</i>	0	0	0	0	0	0	0	1	0	1
247	<i>Callopietria juvenina</i>	0	3	0	1	0	0	0	3	2	9
248	<i>Selenia lunularia</i>	0	1	1	0	0	0	0	1	0	3
249	<i>Macaria liturata</i>	0	6	1	1	0	0	2	0	0	10
250	<i>Mesapamea sp.</i>	0	1	0	0	0	0	0	0	0	1
251	<i>Lygephila cracca</i>	0	2	0	0	0	0	0	0	1	3
252	<i>Trachea atriplicis</i>	0	2	0	0	0	0	0	1	0	3
253	<i>Lacanobia oleracea</i>	1	1	1	0	0	0	0	1	2	6
254	<i>Colocasia coryli</i>	3	9	2	3	2	11	0	9	7	46
255	<i>Cryphia ochsi</i>	1	1	3	7	2	1	0	2	1	18
256	<i>Dysauxes ancilla</i>	7	0	1	1	3	5	0	3	2	22
257	<i>Euplagia quadripunctaria</i>	0	1	0	2	1	1	0	0	2	7
258	<i>Crocallis elinguaris</i>	0	1	0	0	0	4	0	4	0	9
259	<i>Amphipyra livida</i>	0	0	0	0	0	1	0	0	0	1
260	<i>Amphipyra tetra</i>	0	0	1	0	0	1	0	0	0	2
261	<i>Aedia funesta</i>	0	0	0	2	0	1	0	2	0	5
262	<i>Hoplodrina ambigua</i>	0	1	5	5	0	2	0	4	2	19
263	<i>Hemistola chrysoprasaria</i>	0	0	0	0	0	2	0	1	0	3
264	<i>Selenia dentaria</i>	2	2	0	6	0	1	3	5	1	20
265	<i>Alcis repandata</i>	0	1	0	0	0	0	0	0	2	3
266	<i>Idaea rusticata</i>	0	0	0	2	0	0	1	1	0	4
267	<i>Plagodis dolabraria</i>	2	2	2	6	2	2	0	2	1	19
268	<i>Mythimna scirpi</i>	0	0	1	0	0	1	0	0	0	2
269	<i>Eilema complana</i>	1	1	35	3	2	2	1	1	0	46
270	<i>Anthraxia eriopoda</i>	1	6	1	2	0	0	0	2	3	15
271	<i>Mormo maura</i>	0	0	0	0	0	0	0	0	1	1
272	<i>Xestia xanthographa</i>	0	0	0	0	0	1	0	0	1	2
273	<i>Meganola albula</i>	0	0	0	0	0	0	0	0	1	1
274	<i>Agrius convolvuli</i>	0	0	0	0	0	0	0	0	1	1
275	<i>Chloantha hyperici</i>	0	1	0	0	0	0	0	1	1	3
276	<i>Tethidea smaragdaria</i>	0	0	0	0	0	0	0	0	1	1
277	<i>Pseudaletia unipuncta</i>	0	1	0	1	0	0	0	0	1	3
278	<i>Zanclognatha zelleralis</i>	0	1	0	1	1	0	1	6	1	11
279	<i>Proxenus hospes</i>	0	1	1	2	1	1	0	0	1	7
280	<i>Rivula sericealis</i>	0	1	0	0	0	0	0	0	0	1
281	<i>Eupithecia silenicolata</i>	1	1	0	1	0	0	0	0	1	4
282	<i>Oligia latruncula</i>	0	1	0	0	0	0	0	1	0	2
283	<i>Perisoma hydrata</i>	0	0	0	1	1	0	0	0	0	2
284	<i>Epilecta linogrisea</i>	1	1	0	1	0	0	0	1	0	4
285	<i>Cryphia raptricula</i>	0	0	1	0	0	0	0	1	0	2

286	<i>Dysauxes famula</i>	0	3	2	12	0	2	2	2	2	25
287	<i>Eugnorisma depuncta</i>	1	2	0	0	0	2	0	2	1	8
288	<i>Caradrina kadenii</i>	0	0	0	0	0	1	1	0	0	2
289	<i>Parascotia fuliginaria</i>	1	0	0	1	0	0	0	0	1	3
290	<i>Amphipyra micans</i>	1	0	0	0	0	0	0	0	0	1
291	<i>Herminia tersipennalis</i>	3	3	0	5	7	0	0	5	0	23
292	<i>Thaumatopoea solitaria</i>	0	0	0	1	0	0	0	0	0	1
293	<i>Noctua janthe</i>	1	2	0	2	0	2	0	3	9	19
294	<i>Scopula imitaria</i>	3	0	0	0	1	1	1	1	0	7
295	<i>Cyclophora linearia</i>	31	24	5	7	1	1	0	1	2	72
296	<i>Phaiogramma etruscaria</i>	0	0	0	1	0	0	0	0	0	1
297	<i>Agrotis puta</i>	0	0	0	0	0	0	0	0	1	1
298	<i>Pechipogo plumigeralis</i>	0	0	0	3	0	0	1	0	1	5
299	<i>Eilema pseudocomplana</i>	0	0	0	1	0	0	0	0	1	2
300	<i>Drepana faicataria</i>	0	2	0	1	0	1	0	0	0	4
301	<i>Noctua janthina</i>	0	2	0	1	0	0	0	0	4	7
302	<i>Abrostola agnorista</i>	0	0	0	1	0	2	1	0	0	4
303	<i>Cryphia amasina</i>	0	0	3	0	0	0	0	2	0	5
304	<i>Perizoma bifaciata</i>	0	0	2	0	0	0	0	0	1	3
305	<i>Idaea rubraria</i>	0	0	0	0	0	0	0	1	0	1
306	<i>Idaea sylvestraria</i>	0	0	1	0	0	0	0	0	0	1
307	<i>Epirrita dilutata</i>	0	0	0	0	0	0	0	0	5	5
308	<i>Eupithecia venosata</i>	0	1	0	0	1	0	0	0	0	2
309	<i>Coentephria ablutaria</i>	0	0	0	1	0	0	0	0	0	1
310	<i>Idaea trigeminata</i>	1	0	0	0	0	0	0	2	1	4
311	<i>Xestia cohaesa</i>	0	0	0	0	0	0	0	0	1	1
312	<i>Scopula nigropunctata</i>	0	0	0	0	0	2	1	1	0	4
313	<i>Cabera exanthemata</i>	0	1	0	0	0	1	1	0	0	3
314	<i>Cosmia affinis</i>	0	1	0	2	0	0	0	0	0	3
315	<i>Noctua tertia</i>	0	1	1	0	0	1	1	1	0	5
316	<i>Minoa muricata</i>	0	0	0	0	1	0	0	0	0	1
317	<i>Idaea degeneraria</i>	4	1	5	2	0	1	0	2	0	15
318	<i>Idaea straminata</i>	0	0	0	20	0	11	1	0	0	32
319	<i>Cyclophora quercimontaria</i>	0	0	0	0	0	1	0	1	0	2
320	<i>Sesamia nonagrioides</i>	0	0	6	0	0	0	0	0	0	6
321	<i>Mesapamea secalis</i>	0	1	0	0	0	0	0	0	0	1
322	<i>Macaria notata</i>	0	1	0	3	1	2	1	0	0	8
323	<i>Eupithecia denotata</i>	0	0	0	0	1	0	0	0	0	1
324	<i>Eupithecia icterata</i>	0	2	0	0	0	0	1	0	2	5
325	<i>Eupithecia subfuscata</i>	0	0	0	0	0	0	0	0	1	1
326	<i>Idaea subsericeata</i>	0	0	0	1	0	0	1	0	1	3
327	<i>Idaea dilutaria</i>	1	0	0	0	0	0	0	0	0	1
328	<i>Eupithecia haworthiata</i>	0	0	0	2	1	0	1	1	3	8
329	<i>Eupithecia gemellata</i>	1	0	0	0	0	0	0	0	0	1
330	<i>Eupithecia laquaearia</i>	0	0	0	1	0	0	0	0	0	1
331	<i>Eupithecia semigraphata</i>	0	0	0	1	0	0	0	1	0	2
332	<i>Meganola strigula</i>	1	0	1	2	0	0	0	0	0	4
333	<i>Biston strataria</i>	0	0	0	1	0	0	0	0	0	1
334	<i>Eupithecia oxycedrata</i>	0	1	0	0	0	0	0	0	0	1
	Number of species	96	165	109	148	58	103	69	118	138	
	Number of individuals	345	992	478	714	172	356	271	620	300	4248