

# The Diversity of Noctuid Moths (Lepidoptera: Noctuidae) in Serbia

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**Abstract:** Both faunistic and zoogeographical analysis of the family Noctuidae from Serbia have been made on the basis of available literature data and examination of specimens from different collections and from personally collected moth material. Totally 564 species, 231 genera, and 23 subfamilies of Noctuidae are evidenced from Serbia until now. Eight species are here recorded as new for the territory of Serbia. The greatest number of findings is registered from the territory of Central and Western Serbia, while the Southern Serbia is the least explored region at the moment. Zoogeographically, majority of species are with Eurasian distribution (53.72%), while Mediterranean-Asian (35.64%) and Holarctic (4.61%) species are somewhat less abundant. Atlantic-Mediterranean, paleotropical-subtropical, cosmopolitan, and European faunistic elements are scarce.

**Key words:** Noctuidae, Lepidoptera, diversity, distribution, zoogeography, Serbia

## Introduction

Family Noctuidae is the most numerous group among the order Lepidoptera. The noctuid moths fly at night. Their body is covered with hairs. The imagoes are photophilous and are gathering around light during nights. They fly with remarkably glossy eyes and therefore strongly resemble owls.

Noctuid moths are significant and important pests in agriculture and forestry. Many species are polyphagous and attack numerous cultivated plants. These moths are with wide geographic distribution. Some of them are of great economic importance because of their harmfulness if the measures of their control are missing.

According to BETTS (1987), world fauna of Noctuidae numbers totally 21 000 species, VAJGAND (2000) cited 25 000 species of noctuids living on Earth, while KITCHING, RAWLINS (1998) reported to-

tally 35 000 noctuid species worldwide. Europe is inhabited by 1450 species of Noctuidae (FIBIGER 1990, 1993, 1997).

It is well-known that Noctuoidea and Geometroidea, although two unrelative lines of Macrolepidoptera, together form about half of all existing Lepidoptera (GRIMALDI, ENGEL 2005).

The beginnings of explorations of Noctuidae in Serbia were at the end of the XIX century. In the last period the studies on Noctuidae were intensified. ZEČEVIĆ (2002) thoroughly investigated the family in the region of Timočka Krajina (Eastern Serbia). Finally, VASIĆ (2002) gave the list of noctuid species from Serbia. He mentioned 516 species belonging to 217 genera and 19 subfamilies from the country. In conclusion, the same author noticed that 41.25% of all European species are recorded from Serbia (VASIĆ 2002).

## Material and Methods

The noctuid specimens were caught by a light trap (250 W-TEŽ WTF mercury bulb, 100 W-, 160 W-, 250 W-, and 400 W-Philips MI bulbs, as well as 400 W-Petromax lamps) with a cotton panel in behind. They were collected from 2002 till 2008. Some of the analyzed specimens have been collected from street lamp lights or on flowers during the night by battery lamp.

Photophilous moths were collected during nightfall and by night in both forest and meadow biocenoses. A smaller amount of daily species have been collected since many noctuids are heliophilous.

Apart the personally collected material, we also examined available entomological collections in the country.

The systematics, coding, and nomenclature of KARSHOLT, RAZOWSKI (1996) were used, but other references have also been treated for some taxa (FIBIGER *et al.* 2009, FIBIGER, HACKER 2005, FIBIGER, SKULE 2011, LAFONTAINE, FIBIGER 2006, NOWACKI 1998, RÁKOSY 1996).

The literature used in this study contains data about the previous research on noctuids from Serbia (DODOK 2003, 2007, KEREŠI, ALMAŠI 2009, STOJANOVIĆ 2002a, 2002b, 2005, 2006, 2009, STOJANOVIĆ, DODOK 2007, STOJANOVIĆ *et al.* 2006, 2007a, 2007b, 2007c, 2008, STOJANOVIĆ, VAJGAND 2005, 2007, VAJGAND 2000, 2009, VASIĆ 2002, VULEVIĆ 1988, ZEČEVIĆ 2002).

## Results and Discussion

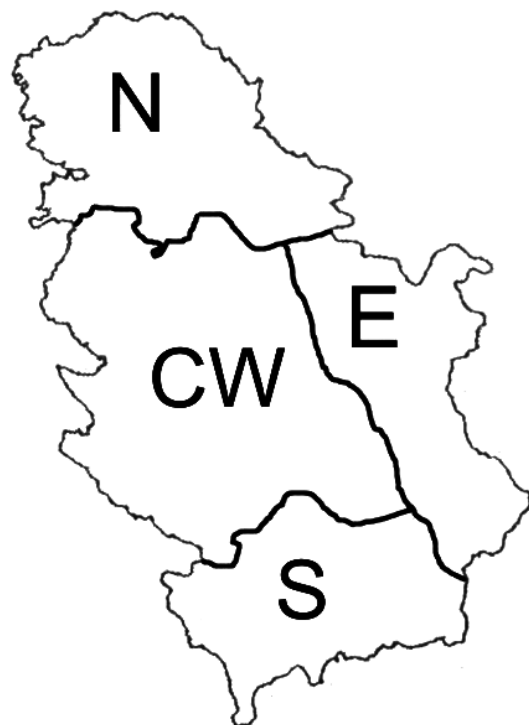
We evidenced altogether 564 noctuid species from 231 genera and 23 subfamilies living in Serbia (Table 1). We treated Pantheinae as a separate subfamily. Subfamilies Nolinae, Chloephorinae, and Eariadinae are included in the Noctuidae family as well. Investigated localities are sorted into the following regions proposed by VASIĆ (2002): northern, central-western, eastern, and southern regions (Map 1).

The number of species differs in different subfamilies. The greatest number of species is registered in the subfamilies Hadeninae (265 or 46.59% of all present species) and Noctuinae (86 species or

15.25%). These are followed by Catocalinae (36 or 6.38%), Cuculliinae (27 or 4.79%), Plusiinae (24 or 4.25%), Acronictinae, and Eustrotiinae (each by 18 species or by 3.19%). Representatives of other subfamilies are less numerous (Table 2). According to number of genera, Hadeninae include totally 103 genera (44.83% of all analyzed genera), Noctuinae – 29 (12.55%), Catocalinae – 18 (7.79%), and Plusiinae – 13 (5.63%). The subfamilies Strepsimaninae, Euteliinae, Dilobinae, and Eariadinae possess each a single genus (or each by 0.43% of all genera) (Table 2).

One of the results of our study is discovering the eight species new for lepidopterofauna of Serbia: *Caradrina wulschlegeli* PÜNGELER, 1903, *Agrochola wolfschlaegeri* BOURSIN, 1953, *Orbona fragariae* (VIEWEG, 1790), *Mesapamea secalella* REMM, 1983, *M. remmi* REZBANYAI-RESER, 1985, *Staurophora celsia* (LINNAEUS, 1758), *Archanara dissoluta* (TREITSCHKE, 1825), and *Yigoga signifera* (DENIS & SCHIFFERMÜLLER, 1775) (Table 3). Details about their localities and other collecting data are additionally presented.

Within the family Noctuidae, 403 species have been recorded from Northern Serbia, 419 spe-



**Map 1.** Regions of Serbia proposed by VASIĆ (2002). Abbreviations: N – Northern Serbia, CW – Central-Western Serbia, E – Eastern Serbia, S – Southern Serbia.

**Table 1.** Overview of all analyzed noctuid species with their distribution in Serbia. Abbreviations: N – Northern Serbia, SW – Central-Western Serbia, E – Eastern Serbia, S – Southern Serbia (according to VASIĆ 2002).

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
<b>Subfamily ACRONICTINAE</b>					
1.	8766	<i>Oxicesta geographica</i> (FABRICIUS, 1787)		N, CW, E	
2.	8772	<i>Moma alpium</i> (OSBECK, 1778)		N, CW, E	
3.	8774	<i>Acronicta alni</i> (LINNAEUS, 1767)		N, CW, E, S	
4.	8775	<i>Acronicta cuspis</i> (HÜBNER, 1813)		S	
5.	8776	<i>Acronicta tridens</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
6.	8777	<i>Acronicta psi</i> (LINNAEUS, 1758)		N, CW, E, S	
7.	8778	<i>Acronicta aceris</i> (LINNAEUS, 1758)		N, CW, E, S	
8.	8779	<i>Acronicta leporina</i> (LINNAEUS, 1758)		CW, E, S	
9.	8780	<i>Acronicta megacephala</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
10.	8781	<i>Acronicta strigosa</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E	
11.	8783	<i>Acronicta auricoma</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, S	
12.	8784	<i>Acronicta euphorbiae</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
13.	8785	<i>Acronicta cinerea</i> (HUFNAGEL, 1766)		CW	
14.	8787	<i>Acronicta rumicis</i> (LINNAEUS, 1758)		N, CW, E, S	
15.	8789	<i>Craniophora ligustri</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
16.	8790	<i>Craniophora pontica</i> (STAUDINGER, 1879)		CW, E	
17.	8792	<i>Simyra nervosa</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E	
18.	8793	<i>Simyra albovenosa</i> (GOEZE, 1781)		N, CW	
<b>Subfamily BRYOPHILINAE</b>					
19.	8797	<i>Cryphia receptricula</i> (HÜBNER, 1803)		N, CW, E, S	
20.	8798	<i>Cryphia fraudatricula</i> (HÜBNER, 1803)		N, CW, E, S	
21.	8801	<i>Cryphia algae</i> (FABRICIUS, 1775)		N, CW, E, S	
22.	8803	<i>Cryphia ochsi</i> BOURSIN, 1940		CW, E	
23.	8804	<i>Bryophila ravula</i> (HÜBNER, 1813)		CW, E, S	
24.	8806	<i>Bryophila ereptricula</i> (TREITSCHKE, 1825)		CW, E, S	
25.	8810	<i>Bryophila raptricula</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
26.	8812	<i>Bryophila orthogramma</i> (BOURSIN, 1954)		CW, E, S	
27.	8816	<i>Bryophila domestica</i> (HUFNAGEL, 1766)		CW, S	
28.	8818	<i>Nyctobrya muralis</i> (FORSTER, 1771)		N, CW, E	
29.	8819	<i>Nyctobrya amasina</i> (DRAUDT, 1931)		N	
<b>Subfamily HERMINIINAE</b>					
30.	8833	<i>Orectis proboscidata</i> (HERRICH-SCHÄFFER, 1851)		CW, E	
31.	8835	<i>Idia calvaria</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
32.	8837	<i>Simplicia rectalis</i> (EVERSMANN, 1842)		CW, E	
33.	8839	<i>Paracolax tristalis</i> (FABRICIUS, 1794)		N, CW, E, S	
34.	8845	<i>Herminia tarsicrinalis</i> (KNOCH, 1782)		N, CW, E	
35.	8846	<i>Herminia grisealis</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
36.	8847	<i>Herminia tenuialis</i> (REBEL, 1899)		N	
37.	8849	<i>Polypogon tentacularia</i> (LINNAEUS, 1758)		N, CW	
38.	8852	<i>Pechipogo strigilata</i> (LINNAEUS, 1758)		N, CW, E	
39.	8853	<i>Pechipogo plumigeralis</i> (HÜBNER, 1825)		CW, S	
40.	8856	<i>Zanclognatha lumalis</i> (SCOPOLI, 1763)		N, CW, E, S	
41.	8857	<i>Zanclognatha zelleralis</i> (WOCKE, 1850)		CW	
42.	8858	<i>Zanclognatha tarsipennalis</i> TREITSCHKE, 1835		N, CW, E, S	
<b>Subfamily STREPSIMANINAE</b>					
43.	8866	<i>Schrankia costaestrigalis</i> (STEPHENS, 1834)		CW, E	
44.	8868	<i>Schrankia taenialis</i> (HÜBNER, 1809)		N	
<b>Subfamily CATOCALINAE</b>					
45.	8871	<i>Catocala sponsa</i> (LINNAEUS, 1767)		N, CW, E, S	
46.	8872	<i>Catocala dilecta</i> (HÜBNER, 1808)		CW, S	
47.	8873	<i>Catocala fraxini</i> (LINNAEUS, 1758)		N, CW, E, S	
48.	8874	<i>Catocala nupta</i> (LINNAEUS, 1767)		N, CW, E, S	
49.	8877	<i>Catocala elocata</i> (ESPER, 1787)		N, CW, E, S	
50.	8880	<i>Catocala puerpera</i> (GIORNA, 1791)		N, CW, E, S	
51.	8882	<i>Catocala promissa</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
52.	8883	<i>Catocala electa</i> (VIEWEG, 1790)		N, CW, E, S	
53.	8887	<i>Catocala conversa</i> (ESPER, 1783)		E, S	
54.	8888	<i>Catocala nymphagoga</i> (ESPER, 1787)		N, CW, E, S	
55.	8889	<i>Catocala hymenaea</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
56.	8890	<i>Catocala fulminea</i> (SCOPOLI, 1763)		N, CW, E, S	
57.	8892	<i>Catocala disjuncta</i> (GEYER, 1828)		E, S	
58.	8895	<i>Catocala diversa</i> (GEYER, 1828)		E, S	
59.	8897	<i>Minucia lunaris</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	
60.	8899	<i>Clytie illunaris</i> (HÜBNER, 1813)		CW	
61.	8904	<i>Dysgonia algira</i> (LINNAEUS, 1767)		N, CW, E, S	
62.	8909	<i>Prodotis stolidia</i> (FABRICIUS, 1775)		N, CW, E, S	
63.	8918	<i>Drasteria cailino</i> (LEFÉBVRE, 1827)		N, CW, E, S	
64.	8927	<i>Lygephila lusoria</i> (LINNAEUS, 1758)		N, S	
65.	8932	<i>Lygephila pastinum</i> (TREITSCHKE, 1826)		N, CW	
66.	8933	<i>Lygephila viciae</i> (HÜBNER, 1822)		N, CW, E, S	
67.	8934	<i>Lygephila craccae</i> (DENIS & SCHIFFERMÜLLER, 1775)		N, CW, E, S	

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
68.	8936	<i>Lygephila procax</i> (HÜBNER, 1813)			N, CW
69.	8938	<i>Tathorhynchus exsiccata</i> (LEDERER, 1855)			S
70.	8940	<i>Apopestes spectrum</i> (ESPER, 1787)			S
71.	8944	<i>Autophila dilucida</i> (HÜBNER, 1808)			N
72.	8956	<i>Catephia alchymista</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
73.	8958	<i>Aedia funesta</i> (ESPER, 1786)			N, CW, E, S
74.	8959	<i>Aedia leucomelas</i> (LINNAEUS, 1758)			N, CW, E
75.	8965	<i>Tyta luctuosa</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
76.	8967	<i>Callistege mi</i> (CLERCK, 1759)			N, CW, E, S
77.	8969	<i>Euclidia glyphica</i> (LINNAEUS, 1758)			N, CW, E, S
78.	8973	<i>Gonospileia triquetra</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, S
79.	8975	<i>Laspeyria flexula</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
80.	8981	<i>Aryrura musculus</i> (MÉNÉTRIÉS, 1859)			N
<b>Subfamily CALPINAE</b>					
81.	8984	<i>Scoliopteryx libatrix</i> (LINNAEUS, 1758)			N, CW, E, S
82.	8986	<i>Calyptra thalictri</i> (BORKHAUSEN, 1790)			N, CW, E, S
<b>Subfamily HYPENINAE</b>					
83.	8992	<i>Rhynchodontodes antiqualis</i> HÜBNER, 1809			CW, E, S
84.	8994	<i>Hypena proboscidalis</i> (LINNAEUS, 1758)			N, CW, E, S
85.	8995	<i>Hypena rostralis</i> (LINNAEUS, 1758)			N, CW, E, S
86.	8996	<i>Hypena obesalis</i> TREITSCHKE, 1829			CW, E, S
87.	8997	<i>Hypena obsitalis</i> (HÜBNER, 1813)			N
88.	8998	<i>Hypena palpalis</i> (HÜBNER, 1796)			S
89.	9002	<i>Hypena crassalis</i> (FABRICIUS, 1787)			CW, E
90.	9006	<i>Phytometra viridaria</i> (CLERCK, 1759)			N, CW, E, S
91.	9008	<i>Rivula sericealis</i> (SCOPOLI, 1763)			N, CW, E, S
92.	9016	<i>Parascotia fuliginaria</i> (LINNAEUS, 1761)			N, CW, E
93.	9018	<i>Colobochyla salicalis</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E
<b>Subfamily EUTELIINAE</b>					
94.	9023	<i>Eutelia adulatrix</i> (HÜBNER, 1813)			N, CW, E, S
<b>Subfamily PLUSIINAE</b>					
95.	9027	<i>Euchalcia variabilis</i> (PILLER, 1783)			CW
96.	9034	<i>Euchalcia consona</i> (FABRICIUS, 1787)			N
97.	9036	<i>Polychrysis moneta</i> (FABRICIUS, 1787)			S
98.	9039	<i>Lamprotes c-aureum</i> (KNOCH, 1781)			N, CW, S
99.	9042	<i>Panchrysis v-argenteum</i> (ESPER, 1798)			S
100.	9045	<i>Diachrysia chrysis</i> (LINNAEUS, 1758)			N, CW, E, S
101.	9046	<i>Diachrysia stenochrysis</i> (WARREN, 1913)			N, E
102.	9047	<i>Diachrysia nadeja</i> (OBERTHÜR, 1880)			N, E
103.	9048	<i>Diachrysia zosimi</i> (HÜBNER, 1822)			N
104.	9049	<i>Diachrysia chryson</i> (ESPER, 1789)			N, CW, E
105.	9051	<i>Macdunnoughia confusa</i> (STEPHENS, 1850)			N, CW, E, S
106.	9053	<i>Plusia festucae</i> (LINNAEUS, 1758)			N, CW, E, S
107.	9056	<i>Autographa gamma</i> (LINNAEUS, 1758)			N, CW, E, S
108.	9059	<i>Autographa pulchrina</i> (HAWORTH, 1809)			CW, E, S
109.	9061	<i>Autographa jota</i> (LINNAEUS, 1758)			N, CW, E, S
110.	9062	<i>Autographa bractea</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW
111.	9074	<i>Syngrapha interrogationis</i> (LINNAEUS, 1758)			E
112.	9078	<i>Thysanoplusia orichalcea</i> (FABRICIUS, 1775)			S
113.	9081	<i>Trichoplusia ni</i> (HÜBNER, 1803)			N, CW, E, S
114.	9088	<i>Chrysodeixis chalcites</i> (ESPER, 1789)			E, S
115.	9091	<i>Abrostola tripartita</i> (HUFNAGEL, 1766)			N, CW, E, S
116.	9092	<i>Abrostola asclepiadis</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
117.	9093	<i>Abrostola triplasia</i> (LINNAEUS, 1758)			N, CW, E, S
118.	9094	<i>Abrostola agnorista</i> DUFAY, 1956			N, CW, E, S
<b>Subfamily ACONTIINAE</b>					
119.	9097	<i>Emmelia trabealis</i> (SCOPOLI, 1763)			N, CW, E, S
120.	9100	<i>Acontia lucida</i> (HUFNAGEL, 1766)			N, CW, E, S
121.	9101	<i>Acontia melanura</i> (TAUSCHER, 1809)			S
122.	9102	<i>Acontia titania</i> (ESPER, 1798)			N
123.	9111	<i>Phyllophila obliterated</i> (RAMBUR, 1833)			N
<b>Subfamily EUSTROTIINAE</b>					
124.	9114	<i>Protodeltote pygarga</i> HUFNAGEL, 1766			N, CW, E, S
125.	9116	<i>Deltote deceptor</i> (SCOPOLI, 1763)			N
126.	9117	<i>Deltote uncula</i> (CLERCK, 1759)			N, CW
127.	9118	<i>Deltote bankiana</i> (FABRICIUS, 1775)			N, CW, E
128.	9122	<i>Pseudeustrotia candidula</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
129.	9126	<i>Odice arcuinna</i> (HÜBNER, 1790)			CW
130.	9129	<i>Odice suava</i> (HÜBNER, 1813)			N, CW, E, S
131.	9132	<i>Calymma communimacula</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW, E, S
132.	9140	<i>Eublemma ostrina</i> (HÜBNER, 1808)			N, CW, S
133.	9142	<i>Eublemma parva</i> (HÜBNER, 1808)			N, S
134.	9145	<i>Eublemma rosea</i> (HÜBNER, 1790)			N
135.	9146	<i>Eublemma amoena</i> (HÜBNER, 1803)			N, CW, S
136.	9147	<i>Eublemma purpurina</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
137.	9157	<i>Eublemma parallela</i> (FREYER, 1842)			N
138.	9161	<i>Glossodice polygramma</i> (DUPONCHEL, 1842)			S
139.	9165	<i>Metachrostis velox</i> (HÜBNER, 1813)			CW
140.	9167	<i>Metachrostis dardouini</i> (BOISDUVAL, 1840)			E
141.	9169	<i>Trisateles emortualis</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
<b>Subfamily CUCULLIINAE</b>					
142.	9179	<i>Cucullia scopariae</i> DORFMEISTER, 1853			N, S
143.	9181	<i>Cucullia fraudatrix</i> EVERSMAAN, 1837			N, CW
144.	9182	<i>Cucullia formosa</i> ROGENHOFER, 1860			S
145.	9183	<i>Cucullia absinthii</i> (LINNAEUS, 1761)			N, E, S
146.	9188	<i>Cucullia artemisiae</i> (HUFNAGEL, 1766)			N, CW
147.	9196	<i>Cucullia lactucae</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
148.	9198	<i>Cucullia lucifuga</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
149.	9199	<i>Cucullia umbratica</i> (LINNAEUS, 1758)			N, CW, E, S
150.	9201	<i>Cucullia balsamitae</i> BOISDUVAL, 1840			N, CW, S
151.	9203	<i>Cucullia campanulae</i> FREYER, 1831			CW, S
152.	9207	<i>Cucullia chamomillae</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW, E
153.	9217	<i>Cucullia tanaceti</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
154.	9218	<i>Cucullia dracunculi</i> (HÜBNER, 1813)			N
155.	9221	<i>Cucullia asteris</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, E
156.	9225	<i>Shargacucullia blattariae</i> (ESPER, 1790)			N, CW, E, S
157.	9229	<i>Shargacucullia scrophulariae</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
158.	9230	<i>Shargacucullia thapsiphaga</i> TREITSCHKE, 1826			N, CW, S
159.	9232	<i>Shargacucullia lychnitis</i> (RAMBUR, 1833)			N, CW, E, S
160.	9233	<i>Shargacucullia verbasci</i> (LINNAEUS, 1758)			N, CW, E, S
161.	9234	<i>Shargacucullia prenanthis</i> (BOISDUVAL, 1840)			CW, E
162.	9236	<i>Calocucullia celsiae</i> (HERRICH-SCHÄFFER, 1850)			N, E, S
163.	9240	<i>Calophasia lunula</i> (HUFNAGEL, 1766)			N, CW, E, S
164.	9243	<i>Calophasia platyptera</i> (ESPER, 1788)			N, S
165.	9245	<i>Calophasia opalina</i> (ESPER, 1793)			N, E
166.	9251	<i>Omphalophana antirrhinii</i> (HÜBNER, 1803)			N, E
167.	9266	<i>Callierges ramosa</i> (ESPER, 1786)			CW, S
168.	9275	<i>Copiphana olivina</i> (HERRICH-SCHÄFFER, 1852)			N, CW, E, S
<b>Subfamily AMPHIPYRINAE</b>					
169.	9304	<i>Pyrois cinnamomea</i> (GOEZE, 1781)			CW
170.	9307	<i>Amphipyra pyramidea</i> (LINNAEUS, 1758)			N, CW, E, S
171.	9308	<i>Amphipyra berbera</i> RUNGS, 1949			N, CW, E
172.	9309	<i>Amphipyra perflua</i> (FABRICIUS, 1787)			CW, E
173.	9310	<i>Amphipyra livida</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
174.	9311	<i>Amphipyra tragopoginis</i> (CLERCK, 1759)			N, CW, E, S
175.	9312	<i>Amphipyra tetra</i> (FABRICIUS, 1787)			CW, E
176.	9313	<i>Amphipyra micans</i> LEDERER, 1857			E
<b>Subfamily PSAPHIDINAE</b>					
177.	9320	<i>Asteroscopus sphinx</i> (HUFNAGEL, 1766)			N, CW, E, S
178.	9323	<i>Brachionycha nubeculosa</i> (ESPER, 1785)			N, CW, E, S
179.	9328	<i>Lamprosticta culta</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
<b>Subfamily DILOBINAE</b>					
180.	9331	<i>Diloba caeruleocephala</i> (LINNAEUS, 1758)			N, CW, E, S
<b>Subfamily STIRIINAE</b>					
181.	9338	<i>Panemeria tenebrata</i> (SCOPOLI, 1763)			N, CW, S
182.	9343	<i>Aegle kaekeritziana</i> (HÜBNER, 1799)			N, CW, E, S
<b>Subfamily HELIOTHINAE</b>					
183.	9355	<i>Schinia cardui</i> (HÜBNER, 1790)			N, CW
184.	9358	<i>Schinia scutosa</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
185.	9364	<i>Heliothis viroplaca</i> (HUFNAGEL, 1766)			N, CW, E, S
186.	9365	<i>Heliothis maritima</i> GRASLIN, 1855			N, CW, E, S
187.	9366	<i>Heliothis ononis</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, S
188.	9367	<i>Heliothis peltigera</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
189.	9368	<i>Heliothis nubigera</i> HERRICH-SCHÄFFER, 1851			CW, E, S
190.	9370	<i>Helicoverpa armigera</i> (HÜBNER, 1808)			N, CW, E, S
191.	9372	<i>Pyrrhia umbra</i> (HUFNAGEL, 1766)			N, CW, E, S
192.	9374	<i>Pyrrhia purpurina</i> (ESPER, 1804)			N, E
193.	9375	<i>Pyrrhia victorina</i> (SODOFFSKY, 1849)			E
194.	9378	<i>Periphanes delphinii</i> (LINNAEUS, 1758)			N, CW, E, S
195.	9380	<i>Chazaria incarnata</i> (FREYER, 1838)			CW, E
<b>Subfamily HADENINAE</b>					
196.	9396	<i>Elaphria venustula</i> (HÜBNER, 1790)			N, CW, E
197.	9403	<i>Mesotrosta signalis</i> (TREITSCHKE, 1829)			S
198.	9405	<i>Acosmetia caliginosa</i> (HÜBNER, 1813)			N
199.	9417	<i>Caradrina morpheus</i> STAUDINGER, 1892			N, CW, E
200.	9422	<i>Caradrina terrea</i> FREYER, 1840			N, E, S

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia		
201.	9423	<i>Caradrina aspersa</i> RAMBUR, 1834	N, CW, E, S	238.	9522	<i>Methorasa latreillei</i> (DUPONCHEL, 1827)	CW, E, S
202.	9424	<i>Caradrina kadenii</i> FREYER, 1836	N, CW, E, S	239.	9524	<i>Eucarta amethystina</i> (HÜBNER, 1803)	N, CW
203.	9430	<i>Caradrina selini</i> BOISDUVAL, 1840	CW, E, S	240.	9525	<i>Eucarta virgo</i> (TREITSCHKE, 1835)	N
204.	9433	<i>Caradrina clavipalpis</i> SCOPOLI, 1763	N, CW, E, S	241.	9527	<i>Ipimorpha retusa</i> (LINNAEUS, 1761)	N, CW, E, S
205.	9434	<i>Caradrina wullschlegeli</i> PÜNGELER, 1903	E	242.	9528	<i>Ipimorpha subtusa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
206.	9435	<i>Caradrina noctivaga</i> BELLIER, 1863	CW, S	243.	9531	<i>Enargia paleacea</i> (ESPER, 1788)	CW, E, S
207.	9436	<i>Caradrina flavirena</i> GUENÉE, 1852	S	244.	9532	<i>Enargia abluta</i> (HÜBNER, 1808)	N, E
208.	9445	<i>Caradrina gilva</i> (DONZEL, 1837)	S	245.	9536	<i>Parastichtis suspecta</i> HÜBNER, 1821	N, S
209.	9449	<i>Hoplodrina octogenaria</i> (GOEZE, 1781)	N, CW, S	246.	9537	<i>Parastichtis ypsillon</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW
210.	9450	<i>Hoplodrina blanda</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E	247.	9539	<i>Mesogona acetosellae</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
211.	9451	<i>Hoplodrina superstes</i> (OCHSENHEIMER, 1816)	N, CW, E, S	248.	9540	<i>Mesogona oxalina</i> (HÜBNER, 1803)	N, E, S
212.	9453	<i>Hoplodrina respersa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	249.	9544	<i>Dicycla oo</i> (LINNAEUS, 1758)	N, CW, E, S
213.	9454	<i>Hoplodrina ambigua</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	250.	9546	<i>Cosmia diffinis</i> (LINNAEUS, 1767)	N, CW, E, S
214.	9456	<i>Charanyca trigrammica</i> (HUFNAGEL, 1766)	N, CW, E, S	251.	9547	<i>Cosmia confinis</i> HERRICH-SCHÄFFER, 1849	CW, S
215.	9458	<i>Atypha pulmonaris</i> (ESPER, 1790)	N, CW, E, S	252.	9548	<i>Cosmia affinis</i> (LINNAEUS, 1767)	N, CW, E, S
216.	9460	<i>Spodoptera exigua</i> (HÜBNER, 1808)	N, CW, E, S	253.	9549	<i>Cosmia pyralina</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
217.	9467	<i>Pseudoxestia apfelbecki</i> (REBEL, 1901)	S	254.	9550	<i>Cosmia trapezina</i> (LINNAEUS, 1758)	N, CW, E, S
218.	9471	<i>Chilodes maritima</i> (TAUSCHER, 1806)	N, E	255.	9552	<i>Atethmia centrago</i> (HAWORTH, 1809)	CW, E, S
219.	9474	<i>Athetis gluteosa</i> (TREITSCHKE, 1835)	N, CW, E, S	256.	9554	<i>Atethmia ambusta</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E
220.	9475	<i>Athetis furvula</i> (HÜBNER, 1808)	N, CW, E	257.	9556	<i>Xanthia togata</i> (ESPER, 1788)	N, CW, E, S
221.	9476	<i>Athetis pallustris</i> (HÜBNER, 1808)	N, CW, E, S	258.	9557	<i>Xanthia aurago</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
222.	9479	<i>Proxenus lepigone</i> (MÖSCHLER, 1860)	N	259.	9558	<i>Xanthia sulphurago</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
223.	9481	<i>Dypterygia scabriuscula</i> (LINNAEUS, 1758)	N, CW, E, S	260.	9559	<i>Xanthia icteritia</i> (HUFNAGEL, 1766)	N, CW, S
224.	9483	<i>Rusina ferruginea</i> (ESPER, 1785)	N, CW, E	261.	9560	<i>Xanthia gilvago</i> (DENIS & SCHIFFERMÜLLER, 1775)	N
225.	9490	<i>Mormo maura</i> (LINNAEUS, 1758)	N, CW, E, S	262.	9561	<i>Xanthia ocellaris</i> (BORKHAUSEN, 1792)	N, CW, E, S
226.	9492	<i>Polyphaenis sericata</i> (ESPER, 1787)	N, CW, E, S	263.	9562	<i>Xanthia citrigo</i> (LINNAEUS, 1758)	N, CW, E, S
227.	9496	<i>Thalpophila matura</i> (HUFNAGEL, 1766)	N, CW, E, S	264.	9565	<i>Agrochola lychnidis</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
228.	9501	<i>Trachea atriplicis</i> (LINNAEUS, 1758)	N, CW, E, S	265.	9566	<i>Agrochola circellaris</i> (HUFNAGEL, 1766)	N, CW, E, S
229.	9503	<i>Euplexia lucipara</i> (LINNAEUS, 1758)	N, CW, E, S	266.	9569	<i>Agrochola lota</i> (CLERCK, 1759)	CW, E, S
230.	9505	<i>Phlogophora meticulosa</i> (LINNAEUS, 1758)	N, CW, E, S	267.	9571	<i>Agrochola macilenta</i> (HÜBNER, 1809)	N, CW, E, S
231.	9506	<i>Phlogophora scita</i> (HÜBNER, 1790)	CW, E, S	268.	9573	<i>Agrochola nitida</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
232.	9508	<i>Hyppa rectilinea</i> (ESPER, 1788)	CW, E, S	269.	9575	<i>Agrochola helvola</i> (LINNAEUS, 1758)	N, CW, E, S
233.	9513	<i>Auchmis detersa</i> (ESPER, 1787)	N, CW, E	270.	9582	<i>Agrochola wolfschlaegeri</i> BOURSIN, 1953	E
234.	9515	<i>Actinotia polyodon</i> (CLERCK, 1759)	N, CW, E, S	271.	9584	<i>Agrochola humilis</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
235.	9516	<i>Actinotia radiosa</i> (ESPER, 1804)	N, CW, E, S				
236.	9518	<i>Chloantha hyperici</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S				
237.	9520	<i>Callopietria juvenina</i> (STOLL, 1782)	N, CW, E				

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
272. 9586	<i>Agrochola litura</i> (LINNAEUS, 1758)	N, CW, E, S	307. 9689	<i>Valeria oleagina</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
273. 9588	<i>Agrochola laevis</i> (HÜBNER, 1803)	N, CW, E	308. 9694	<i>Dichonia aprilina</i> (LINNAEUS, 1758)	N, CW, E, S
274. 9591	<i>Omphaloscelis lunosa</i> (HAWORTH, 1809)	S	309. 9696	<i>Dichonia convergens</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
275. 9593	<i>Xanthia ruticilla</i> (ESPER, 1791)	S	310. 9697	<i>Dichonia aeruginea</i> (HÜBNER, 1808)	N, E, S
276. 9596	<i>Eupsilia transversa</i> (HUFNAGEL, 1766)	N, CW, E, S	311. 9699	<i>Dryobotodes eremita</i> (FABRICIUS, 1775)	N, CW, E, S
277. 9598	<i>Jodia croceago</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E, S	312. 9700	<i>Dryobotodes monochroma</i> (ESPER, 1790)	CW, E
278. 9600	<i>Conistra vaccinii</i> (LINNAEUS, 1761)	N, CW, E, S	313. 9703	<i>Dryobotodes carbonis</i> (WAGNER, 1931)	N, CW
279. 9601	<i>Conistra ligula</i> (ESPER, 1791)	N, CW	314. 9704	<i>Dryobotodes tenebrosa</i> (ESPER, 1789)	S
280. 9603	<i>Conistra rubiginosa</i> (SCOPOLI, 1763)	N, CW, E, S	315. 9706	<i>Antitype chi</i> (LINNAEUS, 1758)	N, CW, E, S
281. 9606	<i>Conistra veronicae</i> (HÜBNER, 1813)	S	316. 9710	<i>Ammoconia caecimacula</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
282. 9608	<i>Conistra torrida</i> (LEDERER, 1857)	CW	317. 9711	<i>Ammoconia senex</i> (GEYER, 1828)	CW
283. 9609	<i>Conistra rubiginea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	318. 9716	<i>Trigonophora flammea</i> (ESPER, 1785)	S
284. 9611	<i>Conistra erythrocephala</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	319. 9720	<i>Polymixis polymita</i> (LINNAEUS, 1761)	N, CW, E, S
285. 9614	<i>Orbona fragariae</i> (VIEWEG, 1790)	N	320. 9725	<i>Polymixis flavicincta</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, S
286. 9616	<i>Episema glaucina</i> (ESPER, 1789)	N, CW, E, S	321. 9726	<i>Polymixis rufocincta</i> (GEYER, 1828)	N, CW, E, S
287. 9617	<i>Episema tersa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	322. 9734	<i>Polymixis gemmea</i> (TREITSCHKE, 1825)	N
288. 9623	<i>Cleoceris scoriacea</i> (ESPER, 1789)	CW, E, S	323. 9738	<i>Blepharita satura</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
289. 9638	<i>Dasypolia templi</i> (THUNBERG, 1792)	E	324. 9741	<i>Mniotype adusta</i> (ESPER, 1790)	N, CW, E, S
290. 9642	<i>Brachylomia viminalis</i> (FABRICIUS, 1776)	N, CW, E, S	325. 9748	<i>Apamea monoglypha</i> (HUFNAGEL, 1766)	N, CW, E, S
291. 9647	<i>Aporophyla australis</i> (BOISDUVAL, 1829)	CW, E	326. 9750	<i>Apamea sicula</i> (TURATI, 1909)	N, CW
292. 9649	<i>Aporophyla lutulenta</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	327. 9752	<i>Apamea lithoxylaea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
293. 9651	<i>Aporophyla nigra</i> (HAWORTH, 1809)	N, CW, E, S	328. 9753	<i>Apamea sublustris</i> (ESPER, 1788)	CW, E
294. 9653	<i>Aporophyla canescens</i> (DUPONCHEL, 1826)	S	329. 9755	<i>Apamea crenata</i> (HUFNAGEL, 1766)	CW, E
295. 9657	<i>Lithophane semibrunnea</i> (HAWORTH, 1809)	CW	330. 9756	<i>Apamea epomidion</i> (HAWORTH, 1809)	N, CW, E
296. 9658	<i>Lithophane socia</i> (HUFNAGEL, 1766)	N, CW, S	331. 9757	<i>Apamea aquila</i> DONZEL, 1837	N, CW, E
297. 9660	<i>Lithophane ornitopus</i> (HUFNAGEL, 1766)	N, CW, E, S	332. 9758	<i>Apamea lateritia</i> (HUFNAGEL, 1766)	CW
298. 9661	<i>Lithophane furcifera</i> (HUFNAGEL, 1766)	S	333. 9759	<i>Apamea furva</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E
299. 9666	<i>Lithophane merckii</i> (RAMBUR, 1832)	N, E, S	334. 9760	<i>Apamea maillardi</i> (GEYER, 1834)	S
300. 9668	<i>Scotochrosta pulla</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, E	335. 9761	<i>Apamea zeta</i> (TREITSCHKE, 1825)	S
301. 9670	<i>Xylena vetusta</i> (HÜBNER, 1813)	CW, E, S	336. 9763	<i>Apamea rubrirena</i> (TREITSCHKE, 1825)	CW
302. 9671	<i>Xylena exsoleta</i> (LINNAEUS, 1758)	N, CW, E, S	337. 9764	<i>Apamea platinea</i> (TREITSCHKE, 1825)	S
303. 9672	<i>Xylena lunifera</i> (WARREN, 1910)	E	338. 9765	<i>Apamea oblonga</i> (HAWORTH, 1809)	CW, E
304. 9679	<i>Meganephria bimaculosa</i> (LINNAEUS, 1767)	N, CW, E, S	339. 9766	<i>Apamea remissa</i> (HÜBNER, 1809)	CW, E, S
305. 9682	<i>Allophyes oxyacanthae</i> (LINNAEUS, 1758)	N, CW, E, S	340. 9767	<i>Apamea unanimitis</i> (HÜBNER, 1813)	CW
306. 9687	<i>Rileviana fovea</i> (TREITSCHKE, 1825)	N, CW, E	341. 9768	<i>Apamea illyria</i> FREYER, 1846	S
			342. 9770	<i>Apamea anceps</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia		
343.	9771	<i>Apamea sordens</i> (HUFNAGEL, 1766)	CW, E, S	380.	9878	<i>Chortodes morrisii</i> (DALE, 1837)	N
344.	9774	<i>Apamea scolopacina</i> (ESPER, 1788)	N, CW, E	381.	9885	<i>Oria musculosa</i> (HÜBNER, 1808)	E, S
345.	9775	<i>Apamea ophiogramma</i> (ESPER, 1794)	N, CW, E	382.	9892	<i>Discestra microdon</i> (GUENÉE, 1852)	N, E
346.	9780	<i>Oligia strigilis</i> (LINNAEUS, 1758)	N, CW, E, S	383.	9895	<i>Discestra trifolii</i> (HUFNAGEL, 1766)	N, CW, E, S
347.	9781	<i>Oligia versicolor</i> (BORKHAUSEN, 1792)	N, CW, E, S	384.	9897	<i>Discestra pugnax</i> (HÜBNER, 1824)	E
348.	9782	<i>Oligia latruncula</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	385.	9898	<i>Discestra dianthi</i> (TAUSCHER, 1809)	N, E
349.	9783	<i>Oligia dubia</i> (HEYDEMANN, 1942)	CW, E	386.	9912	<i>Lacanobia w-latinum</i> (HUFNAGEL, 1766)	N, CW, E, S
350.	9784	<i>Oligia fasciuncula</i> (HAWORTH, 1809)	N	387.	9913	<i>Lacanobia aliena</i> (HÜBNER, 1808)	CW, E, S
351.	9786	<i>Mesoligia furuncula</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	388.	9914	<i>Lacanobia splendens</i> (HÜBNER, 1808)	N, CW, S
352.	9787	<i>Mesoligia literosa</i> (HAWORTH, 1809)	S	389.	9917	<i>Lacanobia oleracea</i> (LINNAEUS, 1758)	N, CW, E, S
353.	9789	<i>Mesapamea secalis</i> (LINNAEUS, 1758)	N, CW, E, S	390.	9918	<i>Lacanobia thalassina</i> (HUFNAGEL, 1766)	CW, E, S
354.	9790	<i>Mesapamea secalella</i> REMM, 1983	N	391.	9919	<i>Lacanobia contigua</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
355.	9791	<i>Mesapamea remmi</i> REZBANYAI-RESER, 1985	N, E	392.	9920	<i>Lacanobia suasa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
356.	9794	<i>Photedes captiuncula</i> (TREITSCHKE, 1825)	CW	393.	9925	<i>Hada plebeja</i> (LINNAEUS, 1761)	N, CW, E, S
357.	9795	<i>Photedes minima</i> (HAWORTH, 1809)	N	394.	9927	<i>Aetheria dysodea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
358.	9797	<i>Eremobia ochroleuca</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, S	395.	9928	<i>Aetheria bicolorata</i> (HUFNAGEL, 1766)	CW, E
359.	9801	<i>Luperina testacea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	396.	9933	<i>Hadena bicruris</i> (HUFNAGEL, 1766)	N, CW, E, S
360.	9809	<i>Luperina rubella</i> (DUPONCHEL, 1835)	N, E, S	397.	9935	<i>Hadena luteago</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
361.	9810	<i>Luperina dumerilii</i> (DUPONCHEL, 1826)	N, CW	398.	9939	<i>Hadena compta</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E, S
362.	9814	<i>Rhizedra lutosa</i> (HÜBNER, 1803)	N, CW, E	399.	9940	<i>Hadena confusa</i> (HUFNAGEL, 1766)	N, CW, E, S
363.	9828	<i>Amphipoea oculatea</i> (LINNAEUS, 1761)	N, CW, E	400.	9944	<i>Hadena albimacula</i> (BORKHAUSEN, 1792)	N, CW, E, S
364.	9829	<i>Amphipoea fucosa</i> (FREYER, 1830)	E, S	401.	9945	<i>Hadena magnolii</i> (BOISDUVAL, 1829)	N, CW, E, S
365.	9834	<i>Hydraecia micacea</i> (ESPER, 1789)	N, CW	402.	9946	<i>Hadena filigrana</i> (ESPER, 1788)	CW, E, S
366.	9837	<i>Hydraecia petasitis</i> DOUBLEDAY, 1847	N, CW, E	403.	9947	<i>Hadena caesia</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
367.	9841	<i>Gortyna flavago</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	404.	9955	<i>Hadena rivularis</i> (FABRICIUS, 1775)	N, CW, E, S
368.	9845	<i>Gortyna borelii</i> (PIERRET, 1837)	N	405.	9957	<i>Hadena perplexa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
369.	9848	<i>Calamia tridens</i> (HUFNAGEL, 1766)	N, CW, E, S	406.	9960	<i>Hadena silenes</i> (HÜBNER, 1822)	N
370.	9852	<i>Staurophora celsa</i> (LINNAEUS, 1758)	N	407.	9964	<i>Hadena irregularis</i> (HUFNAGEL, 1766)	N
371.	9857	<i>Celaena leucostigma</i> (HÜBNER, 1808)	N	408.	9968	<i>Sideridis lampra</i> (SCHAWERDA, 1913)	S
372.	9859	<i>Nonagria typhae</i> (THUNBERG, 1784)	N, CW, E	409.	9969	<i>Sideridis albicolon</i> (HÜBNER, 1813)	N, CW
373.	9864	<i>Archanara geminipuncta</i> (HAWORTH, 1809)	N	410.	9972	<i>Sideridis reticulata</i> (GOEZE, 1781)	N, CW, E, S
374.	9866	<i>Archanara dissoluta</i> (TREITSCHKE, 1825)	N	411.	9973	<i>Sideridis kitti</i> (SCHAWERDA, 1914)	E
375.	9867	<i>Archanara sparganii</i> (ESPER, 1790)	N, CW, E, S	412.	9975	<i>Conisania leineri</i> (FREYER, 1836)	N, S
376.	9870	<i>Sedina buettneri</i> (HERING, 1858)	S	413.	9984	<i>Melanchra persicariae</i> (LINNAEUS, 1761)	N, CW, E, S
377.	9874	<i>Chortodes extrema</i> (HÜBNER, 1809)	N	414.	9985	<i>Melanchra pisi</i> (LINNAEUS, 1758)	CW, E
378.	9875	<i>Chortodes fluxa</i> (HÜBNER, 1809)	E	415.	9987	<i>Mamestra brassicae</i> (LINNAEUS, 1758)	N, CW, E, S
379.	9876	<i>Chortodes pygmina</i> (HAWORTH, 1809)	N, E				



Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
416. 9989	<i>Papestra biren</i> (GOEZE, 1781)	CW	453. 10057	<i>Perigrapha i-cinctum</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, S
417. 9991	<i>Polia bombycina</i> (HUFNAGEL, 1766)	S	454. 10060	<i>Hyssia cavernosa</i> (EVERSMANN, 1842)	N
418. 9992	<i>Polia hepatica</i> (CLERCK, 1759)	N, CW	455. 10062	<i>Cerapteryx graminis</i> (LINNAEUS, 1758)	N, CW, E, S
419. 9993	<i>Polia nebulosa</i> (HUFNAGEL, 1766)	N, CW, E, S	456. 10064	<i>Tholera cespitis</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
420. 9999	<i>Mythimna turca</i> (LINNAEUS, 1761)	N, CW, E, S	457. 10065	<i>Tholera decimalis</i> (PODA, 1761)	N, CW, E, S
421. 10000	<i>Mythimna conigera</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	458. 10068	<i>Pachetra sagittigera</i> (HUFNAGEL, 1766)	N, CW, E, S
422. 10001	<i>Mythimna ferrago</i> (FABRICIUS, 1787)	N, CW, E, S	459. 10070	<i>Eriopygodes imbecilla</i> (FABRICIUS, 1794)	CW, E, S
423. 10002	<i>Mythimna albipuncta</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	460. 10079	<i>Lasionycta proxima</i> (HÜBNER, 1809)	CW, S
424. 10003	<i>Mythimna vitellina</i> (HÜBNER, 1808)	N, CW, E, S	<b>Subfamily NOCTUINAE</b>		
425. 10004	<i>Mythimna pudorina</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW	461. 10082	<i>Axyليا putris</i> (LINNAEUS, 1761)	N, CW, E, S
426. 10005	<i>Mythimna straminea</i> (TREITSCHKE, 1825)	CW, S	462. 10084	<i>Ochroleura flammata</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E
427. 10006	<i>Mythimna impura</i> (HÜBNER, 1808)	E	463. 10086	<i>Ochroleura plecta</i> (LINNAEUS, 1761)	N, CW, E, S
428. 10007	<i>Mythimna pallens</i> (LINNAEUS, 1758)	N, CW, E, S	464. 10087	<i>Ochroleura leucogaster</i> (FREYER, 1831)	N, CW, S
429. 10010	<i>Mythimna obsoleta</i> (HÜBNER, 1803)	N, CW, E	465. 10089	<i>Diarsia mendica</i> (FABRICIUS, 1775)	CW, S
430. 10011	<i>Mythimna comma</i> (LINNAEUS, 1761)	CW, E, S	466. 10090	<i>Diarsia dahlii</i> (HÜBNER, 1813)	CW, S
431. 10015	<i>Mythimna putrescens</i> (HÜBNER, 1824)	CW, S	467. 10092	<i>Diarsia brunnea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
432. 10016	<i>Mythimna punctosa</i> (TREITSCHKE, 1825)	S	468. 10093	<i>Diarsia rubi</i> (VIEWEG, 1790)	CW, E, S
433. 10017	<i>Mythimna flammea</i> (CURTIS, 1828)	N	469. 10094	<i>Diarsia florida</i> (SCHMIDT, 1859)	N, S
434. 10022	<i>Mythimna l-album</i> (LINNAEUS, 1767)	N, CW, E, S	470. 10096	<i>Noctua pronuba</i> LINNAEUS, 1758	N, CW, E, S
435. 10028	<i>Mythimna sicula</i> (TREITSCHKE, 1835)	N	471. 10097	<i>Noctua orbona</i> (HUFNAGEL, 1766)	N, CW, E, S
436. 10029	<i>Mythimna scirpi</i> (DUPONCHEL, 1836)	N, E, S	472. 10098	<i>Noctua interposita</i> (HÜBNER, 1790)	N, CW, E
437. 10030	<i>Mythimna alopecuri</i> (BOISDUVAL, 1840)	E	473. 10099	<i>Noctua comes</i> HÜBNER, 1813	N, CW, E, S
438. 10034	<i>Mythimna loreyi</i> (DUPONCHEL, 1827)	N, CW, E, S	474. 10100	<i>Noctua fimbriata</i> (SCHREBER, 1759)	N, CW, E, S
439. 10035	<i>Mythimna unipuncta</i> (HAWORTH, 1809)	CW, E, S	475. 10102	<i>Noctua janthina</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
440. 10037	<i>Orthosia incerta</i> (HUFNAGEL, 1766)	N, CW, E, S	476. 10103	<i>Noctua janthe</i> (BORKHAUSEN, 1792)	CW
441. 10038	<i>Orthosia gothica</i> (LINNAEUS, 1758)	N, CW, E, S	477. 10105	<i>Noctua interjecta</i> HÜBNER, 1803	S
442. 10039	<i>Orthosia cruda</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	478. 10106	<i>Noctua haywardi</i> (TAMS, 1926)	S
443. 10040	<i>Orthosia schmidti</i> (DIÓSZEGHY, 1935)	N	479. 10108	<i>Epilecta linogrisea</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E, S
444. 10041	<i>Orthosia miniosa</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	480. 10113	<i>Lycophotia porphyrea</i> (DENIS & SCHIFFERMÜLLER, 1775)	CW, E
445. 10042	<i>Orthosia opima</i> (HÜBNER, 1809)	N, CW, E, S	481. 10115	<i>Chersotis rectangula</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S
446. 10043	<i>Orthosia populeti</i> (FABRICIUS, 1775)	N, CW, E	482. 10116	<i>Chersotis andereggi</i> (BOISDUVAL, 1832)	N
447. 10044	<i>Orthosia cerasi</i> (FABRICIUS, 1775)	N, CW, E, S	483. 10117	<i>Chersotis ocellina</i> (DENIS & SCHIFFERMÜLLER, 1775)	S
448. 10046	<i>Orthosia rorida</i> (FRIVALDSZKY, 1835)	E	484. 10121	<i>Chersotis multangula</i> (HÜBNER, 1803)	CW, E, S
449. 10048	<i>Orthosia gracilis</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	485. 10124	<i>Chersotis margaritacea</i> (VILLERS, 1789)	N, CW, E, S
450. 10050	<i>Orthosia munda</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E, S	486. 10130	<i>Chersotis cuprea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, S
451. 10052	<i>Panolis flammea</i> (DENIS & SCHIFFERMÜLLER, 1775)	N, CW, E			
452. 10054	<i>Egira conspiciilaris</i> (LINNAEUS, 1758)	N, CW, E, S			

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia	Serial number and international code of KARSHOLT, RAZOWSKI (1996)	Taxon	Distribution in Serbia
487.	10131	<i>Chersotis fimbriola</i> (ESPER, 1803)			S
488.	10139	<i>Rhyacia simulans</i> (HUFNAGEL, 1766)			N, CW, E, S
489.	10141	<i>Rhyacia lucipeta</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
490.	10145	<i>Epipsilia latens</i> (HÜBNER, 1809)			S
491.	10147	<i>Epipsilia grisescens</i> (FABRICIUS, 1794)			CW, S
492.	10151	<i>Standfussiana nictymera</i> (BOISDUVAL, 1834)			CW
493.	10153	<i>Standfussiana lucerneae</i> (LINNAEUS, 1758)			N, CW, S
494.	10156	<i>Paradiarsia glareosa</i> (ESPER, 1788)			CW, E, S
495.	10161	<i>Eurois occulta</i> (LINNAEUS, 1758)			CW, S
496.	10163	<i>Spaelotis ravida</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
497.	10164	<i>Spaelotis senna</i> (FREYER, 1829)			CW
498.	10169	<i>Opigena polygona</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW, S
499.	10171	<i>Graphiphora augur</i> (FABRICIUS, 1775)			S
500.	10178	<i>Eugnorisma depuncta</i> (LINNAEUS, 1761)			N, CW, E, S
501.	10185	<i>Xestia speciosa</i> (HÜBNER, 1813)			CW, S
502.	10199	<i>Xestia c-nigrum</i> (LINNAEUS, 1758)			N, CW, E, S
503.	10200	<i>Xestia ditrapezium</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
504.	10201	<i>Xestia triangulum</i> (HUFNAGEL, 1766)			CW, E, S
505.	10203	<i>Xestia ashworthii</i> (DOUBLEDAY, 1855)			E, S
506.	10204	<i>Xestia baja</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW, E, S
507.	10206	<i>Xestia rhomboidea</i> (ESPER, 1790)			N, CW, E, S
508.	10207	<i>Xestia castanea</i> (ESPER, 1798)			N, CW, S
509.	10210	<i>Xestia collina</i> (BOISDUVAL, 1840)			E
510.	10212	<i>Xestia xanthographa</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
511.	10218	<i>Eugraphe sigma</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, E
512.	10224	<i>Cerastis rubricosa</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
513.	10225	<i>Cerastis leucographa</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, E, S
514.	10228	<i>Naenia typica</i> (LINNAEUS, 1758)			N, CW, E
515.	10232	<i>Anaplectoides prasina</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
516.	10236	<i>Protolampra sobrina</i> (DUPONCHEL, 1843)			CW
517.	10238	<i>Peridroma saucia</i> (HÜBNER, 1808)			N, CW, E, S
518.	10240	<i>Parexarnis fugax</i> (TREITSCHKE, 1825)			N, CW, S
519.	10244	<i>Actebia praecox</i> (LINNAEUS, 1758)			N
520.	10261	<i>Euxoa decora</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW, S
521.	10262	<i>Euxoa cos</i> (HÜBNER, 1824)			N, CW
522.	10266	<i>Euxoa aquilina</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E
523.	10271	<i>Euxoa distinguenda</i> (LEDERER, 1857)			CW, E, S
524.	10272	<i>Euxoa hastifera</i> (DONZEL, 1847)			N, E
525.	10273	<i>Euxoa temera</i> (HÜBNER, 1808)			N, CW, E, S
526.	10275	<i>Euxoa nigricans</i> (LINNAEUS, 1761)			CW, S
527.	10278	<i>Euxoa segnalis</i> (DUPONCHEL, 1836)			N, CW, S
528.	10280	<i>Euxoa tritici</i> (LINNAEUS, 1761)			N, CW, E, S
529.	10282	<i>Euxoa obelisca</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E
530.	10283	<i>Euxoa vitta</i> (ESPER, 1789)			N
531.	10286	<i>Euxoa conspicua</i> (HÜBNER, 1824)			N
532.	10296	<i>Dichagyris candelisequa</i> (DENIS & SCHIFFERMÜLLER, 1775)			CW
533.	10303	<i>Dichagyris renigera</i> (HÜBNER, 1808)			N, CW, E, S
534.	10308	<i>Yigoga signifera</i> (DENIS & SCHIFFERMÜLLER, 1775)			N
535.	10312	<i>Yigoga flavina</i> (HERRICH-SCHÄFFER, 1852)			CW, S
536.	10313	<i>Yigoga nigrescens</i> (HOFNER, 1888)			S
537.	10314	<i>Yigoga forcipula</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E
538.	10336	<i>Agrotis crassa</i> (HÜBNER, 1803)			N, CW, E, S
539.	10343	<i>Agrotis puta</i> (HÜBNER, 1803)			CW, E, S
540.	10346	<i>Agrotis ipsilon</i> (HUFNAGEL, 1766)			N, CW, E, S
541.	10347	<i>Agrotis trux</i> (HÜBNER, 1824)			N, CW, E, S
542.	10348	<i>Agrotis exclamationis</i> (LINNAEUS, 1758)			N, CW, E, S
543.	10350	<i>Agrotis clavis</i> (HUFNAGEL, 1766)			N, CW, E, S
544.	10351	<i>Agrotis segetum</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
545.	10356	<i>Agrotis vestigialis</i> (HUFNAGEL, 1766)			N, E
546.	10360	<i>Agrotis cinerea</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, CW, E, S
<b>Subfamily PANTHEINAE</b>					
547.	10368	<i>Panthea coenobita</i> (ESPER, 1785)			CW, E, S
548.	10370	<i>Trichosea ludifica</i> (LINNAEUS, 1758)			E
549.	10372	<i>Colocasia coryli</i> (LINNAEUS, 1758)			N, CW, E, S
<b>Subfamily NOLINAE</b>					
550.	10423a	<i>Meganola strigula</i> (DENIS & SCHIFFERMÜLLER, 1775)			N, E
551.	10423b	<i>Meganola kolbi</i> (DANIEL, 1935)			N

Table 1. Continued.

Serial number and international code of KARSHOLT, RAZOWSKI (1996)		Taxon	Distribution in Serbia
552.	10425	<i>Meganola albula</i> (DENIS & SCHIFFERMÜLLER, 1775)	N
553.	10427	<i>Nola cucullatella</i> (LINNAEUS, 1758)	N
554.	10429	<i>Nola confusalis</i> (HERRICH-SCHÄFFER, 1847)	CW
555.	10430	<i>Nola cicatricalis</i> (TREITSCHKE, 1835)	N
556.	10431	<i>Nola aerugula</i> (HÜBNER, 1793)	N
557.	10437	<i>Nola chlamitulalis</i> (HÜBNER, 1813)	E
<b>Subfamily CHLOEPHORINAE</b>			
558.	10441	<i>Nycteola revayana</i> (SCOPOLI, 1772)	N
559.	10444	<i>Nycteola asiatica</i> (KRULIKOVSKY, 1904)	N, E
560.	10445	<i>Nycteola sicilana</i> (FUCHS, 1899)	CW, E
561.	10449	<i>Bena bicolorana</i> (FUESSLY, 1775)	N, CW, E, S
562.	10451	<i>Pseudoips prasinana</i> (LINNAEUS, 1758)	N, CW, E, S
<b>Subfamily EARIADINAE</b>			
563.	10456	<i>Earias clorana</i> (LINNAEUS, 1761)	N, CW, E, S
564.	10460	<i>Earias vernana</i> (FABRICIUS, 1787)	N, E

cies from Central-Western Serbia, 388 species from Eastern Serbia, and 375 species from Southern Serbia. Central-Western Serbia is an area where live the most of the species within the known subfamilies. Southern Serbia is the least explored region at the moment if analyzing both the family and subfamily levels.

Zoogeographical composition of noctuid species is listed in Table 4. The species with Eurasian distribution are dominant (303 species or 53.72% of the evidenced species), while Mediterranean-Asian (201 or 35.64%) and Holarctic (26 or 4.61%) species are somewhat less abundant. Atlantic-Mediterranean, paleotropical-subtropical, cosmopolitan, and European faunistic elements are scarce (Table 4).

Eurasian species are present within 20 subfamilies and are not evidenced within the three of them. Mediterranean-Asian species are known from 19 subfamilies, but missing in four subfamilies. Presence of other zoogeographical elements is lesser within subfamilies (European – one subfamily, cosmopolitan and Atlantic-Mediterranean – both from threesubfamilies, paleotropical-subtropical–five, and Holarctic – eight). Among Eurasian taxa, Hadeninae

Table 2. Number of genera and species of subfamilies of Noctuidae from Serbia and their percentage.

Serial number	Subfamily	Genus		Species	
		Number	%	Number	%
1.	Acronictinae	5	2.16	18	3.19
2.	Bryophilinae	3	1.30	11	1.95
3.	Herminiinae	8	3.46	13	2.31
4.	Strepsimaninae	1	0.43	2	0.35
5.	Catocalinae	18	7.79	36	6.38
6.	Calpinae	2	0.87	2	0.35
7.	Hypeninae	6	2.60	11	1.95
8.	Euteliinae	1	0.43	1	0.18
9.	Plusiinae	13	5.63	24	4.25
10.	Acontiinae	3	1.30	5	0.89
11.	Eustrotiinae	9	3.90	18	3.19
12.	Cuculliinae	7	3.03	27	4.79
13.	Amphipyriinae	2	0.87	8	1.42
14.	Psaphidinae	3	1.30	3	0.53
15.	Dilobinae	1	0.43	1	0.18
16.	Stiriinae	2	0.87	2	0.35
17.	Heliiothinae	6	2.60	13	2.31
18.	Hadeninae	103	44.59	265	46.99
19.	Noctuinae	29	12.55	86	15.25
20.	Pantheinae	3	1.30	3	0.53
21.	Nolinae	2	0.87	8	1.42
22.	Chloephorinae	3	1.30	5	0.89
23.	Eariadinae	1	0.43	2	0.35
<b>Total</b>		<b>231</b>	<b>100</b>	<b>564</b>	<b>100</b>

(with 145 species) and Noctuinae (with 41 species) are the most numerous, while Cuculliinae, Plusiinae, Acronictinae, and Catocalinae possess each less than 20 species. Among Mediterranean-Asian species, Hadeninae (with 94 species), Noctuinae (with 30 species), and Catocalinae (with 18 species) are the most numerous, while Bryophilinae, Eustrotiinae, and Cuculliinae possess each about 10 species. It is significant to mention the fact that all species from the subfamilies Bryophilinae, Euteliinae, and Stiriinae originated from the regions of Mediterranean and Western Asia.

Many evidenced species are disposed to over-multiplying and may provoke great damages to agricultural and industrial cultivated plants, as well as to forest species of trees and bushes. Such species belong to genera *Euxoa* HÜBNER, *Agrotis* OCHSENHEIMER, *Mamestra* OCHSENHEIMER, *Lacanobia*

**Table 3.** Data on noctuid species new for the fauna of Serbia.

International code of KARSHOLT, RAZOWSKI (1996)	Species	Locality	Date and collector
9434	<i>Caradrina wullschlegeli</i> PÜNGELER, 1903	Brestovačka Banja, Eastern Serbia	17 June 1999, Dejan Stojanović
9582	<i>Agrochola wolfschlaegeri</i> BOURSIN, 1953	Brnjica, Iron Gate, Eastern Serbia	30 October 2009, Dejan Stojanović
9614	<i>Orbona fragariae</i> (VIEWEG, 1790)	Turske Livade, Zasavica, Sremska Mitrovica, Northern Serbia	15 October 2008, Mihajlo Stanković
9790	<i>Mesapamea secalella</i> REMM, 1983	Ledinci, Mt. Fruška Gora, Northern Serbia	05 August 2004, Dejan Stojanović
9791	<i>Mesapamea remmi</i> REZBANYAI-RESER, 1985	Dobritov Dom, Mt. Stol, Eastern Serbia	06 August 1999, Dejan Stojanović
9852	<i>Staurophora celsia</i> (LINNAEUS, 1758)	Palić, Northern Serbia	26 September 1979, Konstantin Vasić
9866	<i>Archanara dissoluta</i> (TREITSCHKE, 1825)	Ledinci, Mt. Fruška Gora, Northern Serbia	07 July 2004, Dejan Stojanović
10308	<i>Yigoga signifera</i> (DENIS & SCHIFFERMÜLLER, 1775)	Hunter's house, village of Grgurevac, Mt. Fruška Gora, Northern Serbia	06 July 2005, Dejan Stojanović

BILLBERG, *Orthosia* OCHSENHEIMER, *Enargia* HÜBNER, *Dicycla* GUENÉE, *Cosmia* OCHSENHEIMER, etc.

We just shed some light to one part of the richness of noctuidofauna of Serbia. The research is definitely not finished, but has just begun. Our paper shows the current diversity of Noctuidae in Serbia and indicates the need for further explorations and studies.

Generally speaking, it can be asserted that the noctuid fauna of Serbia has not been thoroughly studied. The total number of species of these moths in Serbia (564) is smaller than the total number of species in Croatia (587), Greece (591), Romania (643), Bulgaria (694), and Europe as a whole (1450) (BESHKOV 2000; FIBIGER 1990, 1993, 1997; HACKER 1989; KARSHOLT, RAZOWSKI 1996; RÁKOSY 1996; SAVKOVIĆ 2001). The current richness of noctuids from Serbia is explainable by existence of number of studies on the group and visited localities so far. Greater number of taxa is evidenced in neighbor European countries bordering seas (Mediterranean, Adriatic, Aegean, Ionian, and Black Seas). Therefore,

the lack of sea in Serbia may provoke considerably smaller number of noctuid species. Almost 50% of European species are present in Serbia as well. However, less species have been recorded on the territory of Montenegro (260), Albania (285), Belarus (332), FYR Macedonia (469), Czech Republic (472), Slovakia (500), and Hungary (519) (BÉLIN 2003, CARNELUTTI *et al.* 1991, HACKER 1989, MERŽEEVSKAJA *et al.* 1976, NOWACKI, FIBIGER 1996, THURNER 1964). Future investigations should be intensified in regions rich in river valleys and marsh areas, where additional findings of the species new for the country are expected. We therefore feel that the total number of noctuid species in Serbia is in reality considerably greater, something that future extensive and intensive investigations should confirm.

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**Table 4.** Zoogeographical categories of noctuid moths from Serbia.

Serial number	Subfamily	Number of species	Zoogeographical affiliation						
			Eurasian	Mediterranean-Asian	Holarctic	Atlantic-Mediterranean	Paleotropical-subtropical	Cosmopolitan	European
1.	Acronictinae	18	15	2	1	-	-	-	-
2.	Bryophilinae	11	-	11	-	-	-	-	-
3.	Herminiinae	13	10	3	-	-	-	-	-
4.	Strepsimaninae	2	1	1	-	-	-	-	-
5.	Catocalinae	36	14	18	-	1	3	-	-
6.	Calpinae	2	1	-	1	-	-	-	-
7.	Hypeninae	11	7	4	-	-	-	-	-
8.	Euteliinae	1	-	1	-	-	-	-	-
9.	Plusiinae	24	16	3	2	-	1	2	-
10.	Acontiinae	5	3	2	-	-	-	-	-
11.	Eustrotiinae	18	8	10	-	-	-	-	-
12.	Cuculliinae	27	18	8	1	-	-	-	-
13.	Amphipyridae	8	3	4	1	-	-	-	-
14.	Psaphidinae	3	2	1	-	-	-	-	-
15.	Dilobinae	1	1	-	-	-	-	-	-
16.	Stiriinae	2	-	2	-	-	-	-	-
17.	Heliothinae	13	2	5	3	-	3	-	-
18.	Hadeninae	265	145	94	9	9	1	3	4
19.	Noctuinae	86	41	30	8	4	1	2	-
20.	Pantheinae	3	3	-	-	-	-	-	-
21.	Nolinae	8	7	1	-	-	-	-	-
22.	Chloephorinae	5	5	-	-	-	-	-	-
23.	Eariadinae	2	1	1	-	-	-	-	-
Total		564	303	201	26	14	9	7	4

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