

**NOCTUIDAE (LEPIDOPTERA) OF THE UŽICE REGION  
(WESTERN SERBIA)**

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**ABSTRACT:** It is considered that the fauna of Noctuidae in Serbia includes 524 species, although it has to be said that certain regions have not been well examined. The present paper constitutes a faunistic examination of Noctuidae in the region of Užice (Western Serbia) during the period 1995-2005, when the presence of 18 subfamilies and 223 species was established. Among them, 29 species are registered for the first time for Western Serbia and four for Central Serbia. The species *Zanclognatha zelleralis* (Wocke, 1850) is a new one in the Serbian fauna.

**KEY WORDS:** Lepidoptera, Noctuidae, *Zanclognatha zelleralis*, Serbia.

**INTRODUCTION**

In the fauna of the family Noctuidae in Serbia is relatively well known and is presented in the paper "Fauna of Noctuids in Serbia" (VASIĆ, 2002), which listed 516 species. Two omitted species should be added (ZEČEVIĆ, 1996): *Schinia scutosa* (Denis-Schiffermüller, 1775) and *Abrostola tripartita* (Hufnagel, 1766). STOJANOVIĆ (2002) lists four more species, while STOJANOVIĆ AND DODOK (in press) list two more, making a total of 524 noctuid species in Serbia.

The territory of Serbia has not been uniformly examined: certain regions have been inadequately examined and some not at all. In Western Serbia, Noctuidae were examined before World War II by Prof. M. Gradojević (ZEČEVIĆ AND VAJGAND, 2001) on the mountains Povlen and Tara, in Šabac, Valjevo and nearby area. Prof K. Vasić explored mountains Zlatibor, Golija, Zlatibor, Maljen, Suvobor (Rajac), and Divčibare (VASIĆ, 2002). Vajgand collected Noctuidae in Petnica near Valjevo.

The goal of the field research reported herein was to determine the fauna and ecology of noctuids in the inadequately examined Western Serbia region, i.e., the area containing Užice and the mountains Tara and Zlatibor.

## EXPLORED REGION

Region explored is situated in the central part of Western Serbia and includes town of Užice and mountains Tara and Zlatibor. Nine localities were selected and are listed with both their altitude and UTM designations of ex-Yugoslavia (SURVEY, 1969).

The town of Užice and its surroundings are represented with four localities:

Locality 1: The settlement of Krčagovo (450-550 m a.s.l., DP 05) is situated in the Djetinja River valley. The locality is in the vicinity of an industrial-urban zone, has southern and western exposures and comprises degraded oak forests [ass. *Quercetum farnetto cerris* Rud. (TOMIĆ, 1990)] with meadows in between [ass. *Agrostideto-Chrysopogonetum grylli* (KOJIĆ AND PEKIĆ, 1995)] and ruderal vegetation (*class Chenopodietae*) around buildings and houses.

Locality 2: The settlement of Sevojno (400 m a.s.l., DP 15), a fully urbanized zone in the vicinity of plants of the metal-processing industry.

Locality 3: The Djetinja River gorge (430-800 m a.s.l., CP 95, DP 05), app. 20 km in length, stretching from the Kremna valley below the eastern slopes of Mt. Tara to the point where the river reaches Užice. The gorge intersects karst running in an east-to-west and is refugial in its character, as determined through exploration of its butterfly fauna (Papilionidea, Hesperiioidea), containing 110 species (DODOK, 2003).

Locality 4: The village of Bela Zemlja (650-750 m a.s.l., CP 95) is 8 km southwest of Užice, on the northern border of Mt. Zlatibor. The area is intensively cultivated: some 80% is covered by arable fields, orchards, and meadows, while the rest is under oak forests (ass. *Qercetum cerris* Vuk.). Bordering the streams are phytocenoses of willows and alders (ass. *Salicetum purpureae* Wend.-Zel. and ass. *Salicetum eleagni* Moor.).

Locality 5: The lower part of the Uvac River gorge is on the southern border of the Mt. Zlatibor. Explorations were performed near Rutoši village (800-900 m a.s.l., CP 92). These are rocky and arid terrains with cohabitats of black hornbeam and black ash (ass. *Orno-Ostryetum* Aich.).

Locality 6: Mount Jelova Gora, whose highest peak has an altitude of 1003 m above sea level, 10 km NW of Užice. The Gostinica locality (950 m a.s.l., DP 06) comprises degraded beech forests (ass. *Fagetum montanum* Jov.) with a substantial presence of birch (*Betula pendula*). Orchards and meadows are extensively cultivated.

Mount Tara is situated on the western border of Serbia, next to the canyon of the Drina. A map and detailed data on Mt. Tara are to be found in PEŠIĆ (2002). We explored the mountain plateau with villages mostly engaged in ranching. The surroundings comprise mixed forests containing spruce, fir, and beech (ass. *Piceeto-Abieto-Fagetum*), as well as pine forests (ass. *Pinetum nigrae silvestris*). Three localities were examined:

Locality 7: The village of Jagoštica (800-900 m a.s.l., CP 67) is directly above the Drina canyon.

Locality 8: The village of Zaovine is in the middle of the mountain, near the dam. Moths were collected by the lake (1000 m a.s.l., CP 76) and in the settlement of Sekulići (1250 m a.s.l., CP 76).

Locality 9: The village of Zaovine, settlement of Karaklje (1100-1200 m a.s.l., CP 66).

## MATERIAL AND METHODS

Noctuids were examined together with other families of Lepidoptera in the period 1995-2005. Field research at localities in Užice and its vicinity were performed throughout the year, those on Mt. Tara in the summer months. Altogether, exploration of localities was performed on 268 nights (Table 2), with all findings neatly written in the field diary. Noctuid collection mostly took place from twilight to midnight (when appropriate, all the way to dawn). Noctuids were collected to a lesser extent during daytime, together with butterfly collecting.

Moths were caught in an entomological net, neutralized by medical ether, and packed in transport envelopes. Ones active at night were attracted by light, mostly by that of a 400 W mercury lamp set on a tripod method was used at localities 3, 4, 5, 6, 7, 8, and 9; in the town (localities 1 and 2), this proved ineffective, so moths were collected next to public lighting. At locality 3, moths were collected around lighting of hydro-electric power.

Specimens were prepared, labeled, and deposited according to standard methods. Close to 1000 specimens are in the author's collection (Užice, W. Serbia). Determination of species was based on wing drawings as per: FORSTER AND WOHLFAHRT (1955-1981), RAKOSY (1996), and HACKER (1989). In cases of undetermined specimens and disputable species, dissection of genitals was done and preparations were made in Canada-balsam. Assisting greatly in these analyses was my colleague, Dejan Stojanović.

Systematization and nomenclature of the family Noctuidae are given as per book "The Lepidoptera of Europe" (KARSHOLT AND RAZOWSKI, 1996).

## RESULTS AND DISCUSSION

Results of exploring the fauna of Noctuidae in the Užice region are summarized and presented in Table 1, in the form of a list of species found. A "+" sign means that the species was recorded at the given locality. The last column (ZB) shows zoogeographic affiliation of the species according to VASIĆ (2002): 1) Palaearctic; 2) Mediterranean-Asian; 3) Holarctic; 4) Atlantic-Mediterranean; 5) Paleotropical-subtropical; 6) Cosmopolitan.

Field research in the described area enabled us to establish the existence of 250 Noctuidae species, 223 of them belonging to 18 subfamilies (Table 1). That number represents 42% of the 525 species in the Serbian fauna. According to VASIĆ (2002), another 56 species have been recorded in Western Serbia, which combined with our results gives a total of 279 species, or 53% of the Serbian fauna.

Table 1: Review of Noctuidae species recorded in the Užice region (Western Serbia).

No.	Subfamily and species	Užice and surroundings				Uvac	J.gora	Mountain Tara	ZB	
		loc 1	loc 2	loc 3	loc 4					
<b>Acronictinae</b>										
*1.	<i>Acronicta alni</i> (Linnaeus, 1767)						+			1
2.	<i>Acronicta psi</i> (Linnaeus, 1758)					+				+
3.	<i>Acronicta aceris</i> (Linnaeus, 1758)					+	+	+		2
4.	<i>Acronicta leporina</i> (Linnaeus, 1758)					+	+			3
*5.	<i>Acronicta megacephala</i> (Denis-Schiffermüller, 1775)	+				+	+		+	1
*6.	<i>Acronicta strigosa</i> (Denis-Schiffermüller, 1775)				+	+				1
7.	<i>Acronicta auricoma</i> (Denis-Schiffermüller, 1775)					+	+	+		1
*8.	<i>Acronicta euphorbiae</i> (Denis-Schiffermüller, 1775)				+	+				1
9.	<i>Acronicta rumicis</i> (Linnaeus, 1758)	+	+			+	+	+		1
10.	<i>Craniophora ligustri</i> (Denis-Schiffermüller, 1775)	+		+	+		+	+		1
<b>Bryophilinae</b>										
11.	<i>Cryphia algae</i> (Fabricius, 1775)	+		+	+		+	+		2
12.	<i>Cryphia ereptricula</i> (Treitschke, 1825)							+		2
13.	<i>Cryphia muralis</i> (Forster, 1771)					+	+			2
<b>Herminiiinae</b>										
*14.	<i>Orectis proboscidata</i> (Herrich-Schäffer, 1851)			+						2
15.	<i>Idia calvaria</i> (Denis-Schiffermüller, 1775)	+			+	+		+		1
16.	<i>Paracolax tristalis</i> (Fabricius, 1794)	+		+	+	+				1
17.	<i>Herminia tarsicrinialis</i> (Knoch, 1782)	+								1
18.	<i>Herminia grisealis</i> (Denis-Schiffermüller, 1775)	+		+	+		+			1
19.	<i>Polypogon tentacularia</i> (Linnaeus, 1758)	+	+		+		+		+	1
*20.	<i>Pechipogo strigilata</i> (Linnaeus, 1758)	+								1
21.	<i>Zanclognatha lunalis</i> (Scopoli, 1763)	+	+	+	+		+	+	+	1
22.	<i>Zanclognatha zelleralis</i> (Wocke, 1850)	+					+			1
23.	<i>Zanclognatha tarsipennalis</i> (Treitschke, 1835)	+	+		+		+		+	1
<b>Catocalinae</b>										
24.	<i>Catocala sponsa</i> (Linnaeus, 1767)			+	+					2
25.	<i>Catocala fraxini</i> (Linnaeus, 1758)			+	+					1
26.	<i>Catocala nupta</i> (Linnaeus, 1767)	+		+	+		+	+		1
27.	<i>Catocala promissa</i> (Denis-Schiffermüller, 1775)				+	+				2
28.	<i>Catocala electa</i> (Vieweg, 1790)	+		+			+			1
29.	<i>Catocala nymphagoga</i> (Esper, 1787)				+		+	+		2
30.	<i>Catocala fulminea</i> (Scopoli, 1763)				+			+		1
31.	<i>Lygephila procax</i> (Hubner, 1813)								+	2
32.	<i>Aedia leucomelas</i> (Linnaeus, 1758)				+					5
33.	<i>Tyta luctuosa</i> (Denis-Schiffermüller, 1775)	+	+	+	+	+	+	+		1
34.	<i>Callistege mi</i> (Clerck, 1759)	+		+	+		+	+		1
35.	<i>Euclidia glyphica</i> (Linnaeus, 1758)	+	+	+	+		+	+	+	1
36.	<i>Laspeyria flexula</i> (Denis-Schiffermüller, 1775)				+				+	1
<b>Calpinae</b>										
37.	<i>Scoliopteryx libatrix</i> (Linnaeus, 1758)	+		+	+		+			3
38.	<i>Calyptra thalictri</i> (Borkhausen, 1790)							+		1
<b>Hypeninae</b>										
39.	<i>Hypena proboscidalis</i> (Linnaeus, 1758)	+	+	+	+		+		+	1
40.	<i>Hypena rostralis</i> (Linnaeus, 1758)	+	+		+		+		+	1

Table 1: Continued.

41.	<i>Phytometra viridaria</i> (Clerck, 1759)	+		+	+	+	+	+	+	+	1
42.	<i>Rivula sericealis</i> (Scopoli, 1763)	+		+	+		+			+	1
43.	<i>Parascotia fuliginaria</i> (Linnaeus, 1761)							+	+		2
<b>Euteliinae</b>											
*44.	<i>Eutelia adulatrix</i> (Hubner, 1813)			+	+						2
<b>Plusiinae</b>											
45.	<i>Diachrysia chrysitis</i> (Linnaeus, 1758)	+		+	+		+		+	+	1
46.	<i>Macdunnoughia confusa</i> (Stephens, 1850)	+			+						1
47.	<i>Autographa gamma</i> (Linnaeus, 1758)	+	+	+	+		+		+	+	6
48.	<i>Autographa pulchrina</i> (Haworth, 1809)							+	+		1
49.	<i>Autographa iota</i> (Linnaeus, 1758)							+			1
50.	<i>Autographa bractea</i> (Denis-Schiffermüller, 1775)							+	+	+	1
51.	<i>Trichoplusia ni</i> (Hubner, 1803)					+		+			6
<b>Acontiinae</b>											
52.	<i>Emmelia trabealis</i> (Scopoli, 1763)	+	+	+	+		+			+	1
<b>Eustrotiinae</b>											
53.	<i>Protedeltote pygarga</i> (Hufnagel, 1766)	+			+						1
54.	<i>Pseudostrotia candidula</i> (Denis-Schiffermüller, 1775)				+		+			+	1
55.	<i>Odice suava</i> (Hubner, 1813)								+		2
*56.	<i>Calymna communimacula</i> (Denis-Schiffermüller, 1775)				+		+				2
57.	<i>Eublemma ostrina</i> (Hubner, 1808)				+						2
58.	<i>Trisateles emortualis</i> (Denis-Schiffermüller, 1775)				+		+			+	1
<b>Cuculliinae</b>											
59.	<i>Cuculia lucifuga</i> (Denis-Schiffermüller, 1775)				+		+				1
60.	<i>Cuculia umbratica</i> (Linnaeus, 1758)	+			+					+	1
61.	<i>Calophasia lunula</i> (Hufnagel, 1766)				+		+			+	3
62.	<i>Calliergis ramosa</i> (Esper, 1787)									+	1
<b>Amphipyrinae</b>											
63.	<i>Amphipyra pyramidaea</i> (Linnaeus, 1758)	+	+	+	+		+			+	1
64.	<i>Amphipyra tragopoginis</i> (Clerck, 1759)	+		+	+		+	+	+	+	3
65.	<i>Amphipyra tetra</i> (Fabricius, 1787)				+		+				2
<b>Psaphidinae</b>											
*66.	<i>Asteroscopus sphinx</i> (Hufnagel, 1766)				+						1
67.	<i>Lamprosticta culta</i> (Denis-Schiffermüller, 1775)				+				+	+	2
<b>Dilobinae</b>											
68.	<i>Diloba caeruleocephala</i> (Linnaeus, 1758)	+		+	+		+				1
<b>Stiriinae</b>											
69.	<i>Panemeria tenebrata</i> (Scopoli, 1763)	+		+	+		+	+			2
<b>Heliothinae</b>											
70.	<i>Schinia scutosa</i> (Denis-Schiffermüller, 1775)						+				2
71.	<i>Heliothis viriplaca</i> (Hufnagel, 1766)	+		+	+		+		+		1
72.	<i>Heliothis peltigera</i> (Denis-Schiffermüller, 1775)				+		+	+			5
73.	<i>Helicoverpa armigera</i> (Hubner, 1808)	+					+				5
74.	<i>Pyrrhia umbra</i> (Hufnagel, 1766)	+		+	+		+	+		+	3
75.	<i>Chazaria incarnata</i> (Freyer, 1838)									+	2
<b>Hadeninae</b>											
76.	<i>Caradrina morpheus</i> (Hufnagel, 1766)	+							+		1
77.	<i>Platyperigea aspersa</i> (Rambur, 1834)					+		+		+	2

Table 1: Continued.

78.	<i>Platyperigea kadenii</i> (Freyer, 1836)	+		+	+			2
79.	<i>Paradrina clavipalpis</i> (Scopoli, 1763)						+	1
80.	<i>Hoplodrina octogenaria</i> (Goeze, 1781)	+	+	+	+		+	1
81.	<i>Hoplodrina superstes</i> (Ochsenheimer, 1816)	+		+	+			2
82.	<i>Hoplodrina respersa</i> (Denis-Schiffermüller, 1775)			+	+		+	2
83.	<i>Hoplodrina ambiqua</i> (Denis-Schiffermüller, 1775)			+			+	2
84.	<i>Charanya trigrammica</i> (Hufnagel, 1766)	+		+	+		+	2
85.	<i>Atypa pulmonaris</i> (Esper, 1790)	+		+				2
86.	<i>Spodoptera exigua</i> (Hubner, 1808)	+		+	+		+	6
87.	<i>Athetis furvula</i> (Hubner, 1808)				+			1
88.	<i>Dypterygia scabriuscula</i> (Linnaeus, 1758)				+			1
89.	<i>Rusina ferruginea</i> (Esper, 1785)	+		+	+		+	1
90.	<i>Mormo maura</i> (Linnaeus, 1758)	+						2
91.	<i>Polyphaenis sericata</i> (Esper, 1787)			+	+		+	2
92.	<i>Talpophila matura</i> (Hufnagel, 1766)	+	+	+	+		+	2
93.	<i>Trachea atriplicis</i> (Linnaeus, 1758)	+		+	+	+	+	1
94.	<i>Euplexia lucipara</i> (Linnaeus, 1758)	+		+	+			1
95.	<i>Phlogophora meticulosa</i> (Linnaeus, 1758)	+	+	+	+	+		2
96.	<i>Actinodia polyodon</i> (Clerck, 1759)			+	+	+	+	1
97.	<i>Callopistria juventina</i> (Stoll, 1782)			+	+	+	+	1
*98.	<i>Eucarta amethystina</i> (Hubner, 1803)						+	1
*99.	<i>Ipimorpha retusa</i> (Linnaeus, 1761)			+				1
100.	<i>Ipimorpha subtusa</i> (Denis-Schiffermüller, 1775)		+	+	+			1
101.	<i>Enargia palaeca</i> (Esper, 1788)			+		+	+	1
102.	<i>Parastychitis ypsilon</i> (Denis-Schiffermüller, 1775)					+		1
103.	<i>Dycyela oo</i> (Linnaeus, 1758)			+				2
*104.	<i>Cosmia affinis</i> (Linnaeus, 1769)			+				1
105.	<i>Cosmia trapezina</i> (Linnaeus, 1758)	+	+	+	+	+	+	2
106.	<i>Atethmia ambusta</i> (Denis-Schiffermüller, 1775)				+			2
107.	<i>Xanthia togata</i> (Esper, 1788)				+			3
108.	<i>Xanthia aurago</i> (Denis-Schiffermüller, 1775)	+		+	+			1
109.	<i>Xanthia sulphurago</i> (Denis-Schiffermüller, 1775)				+			2
110.	<i>Xanthia icteritia</i> (Hufnagel, 1766)	+	+	+	+			1
111.	<i>Agrochola lychnidis</i> (Denis-Schiffermüller, 1775)	+	+	+	+			2
112.	<i>Agrochola circellaris</i> (Hufnagel, 1766)	+		+	+			1
113.	<i>Agrochola lota</i> (Clerck, 1759)				+			1
114.	<i>Agrochola macilenta</i> (Hubner, 1809)				+	+		2
115.	<i>Agrochola nitida</i> (Denis-Schiffermüller, 1775)				+	+		2
116.	<i>Agrochola helvola</i> (Linnaeus, 1758)				+	+		1
117.	<i>Agrochola humils</i> (Denis-Schiffermüller, 1775)				+			2
118.	<i>Agrochola litura</i> (Linnaeus, 1758)			+	+	+		2
119.	<i>Agrochola laevis</i> (Hubner, 1803)				+			2
120.	<i>Eupsilia transversa</i> (Hufnagel, 1766)	+	+	+	+	+		1
121.	<i>Jodia croceago</i> (Denis-Schiffermüller, 1775)	+		+	+			2
122.	<i>Conistra vaccinii</i> (Linnaeus, 1761)	+	+	+	+	+		1
*123.	<i>Conistra ligula</i> (Esper, 1790)				+			1
124.	<i>Conistra rubiginosa</i> (Scopoli, 1763)	+			+	+		2
125.	<i>Conistra rubiginea</i> (Denis-Schiffermüller, 1775)	+			+	+		2
126.	<i>Conistra erytrocephala</i> (Denis-Schiffermüller, 1775)	+		+	+	+		2
127.	<i>Brachylomia viminalis</i> (Fabricius, 1777)						+	1

Table 1: Continued.

*128.	<i>Apororophyla lutulenta</i> (Denis-Schiffermüller, 1775)				+		+			4
129.	<i>Lithophane ornitopus</i> (Hufnagel, 1766)	+	+	+	+		+			1
130.	<i>Allophyes oxyacanthea</i> (Linnaeus, 1758)	+		+	+		+			2
*131.	<i>Valeria oleagina</i> (Denis-Schiffermüller, 1775)		+		+					2
132.	<i>Dichonia aprilina</i> (Linnaeus, 1758)	+		+	+					2
133.	<i>Dichonia convergens</i> (Denis-Schiffermüller, 1775)	+					+			2
*134.	<i>Dichonia eremita</i> (Fabricius, 1775)	+			+					2
135.	<i>Dryobotodes monochroma</i> (Esper, 1790)				+					2
136.	<i>Ammoconia caecimacula</i> (Denis-Schiffermüller, 1775)	+			+		+			1
137.	<i>Polymixis polymita</i> (Linnaeus, 1761)				+		+			2
138.	<i>Polymixis rufocincta</i> (Geyer, 1828)					+				2
139.	<i>Mniotype adusta</i> (Esper, 1790)							+		1
140.	<i>Apamea monoglypha</i> (Hufnagel, 1766)	+	+	+	+	+	+	+	+	1
141.	<i>Apamea lithoxylaea</i> (Denis-Schiffermüller, 1775)				+					1
142.	<i>Apamea epomidion</i> (Haworth, 1809)				+					1
143.	<i>Apamea sordens</i> (Hufnagel, 1766)				+					1
*144.	<i>Apamea scolopacina</i> (Esper, 1790)		+							1
145.	<i>Oligia strigilis</i> (Linnaeus, 1758)	+			+		+	+	+	1
146.	<i>Oligia latruncula</i> (Denis-Schiffermüller, 1775)	+			+			+	+	2
*147.	<i>Mesoligia furuncula</i> (Denis-Schiffermüller, 1775)				+					1
148.	<i>Mesapamea secalis</i> (Linnaeus, 1758)	+	+	+	+	+	+			1
149.	<i>Luperina testacea</i> (Denis-Schiffermüller, 1775)	+			+		+			2
150.	<i>Amphipoea ocella</i> (Linnaeus, 1761)				+		+			1
*151.	<i>Hyrdaeia petasitis</i> (Doubleday, 1847)				+					1
152.	<i>Discestra trifolii</i> (Hufnagel, 1766)				+					3
153.	<i>Lacanobia w-latinum</i> (Hufnagel, 1766)				+		+			1
154.	<i>Lacanobia oleracea</i> (Linnaeus, 1758)	+	+		+		+	+		1
155.	<i>Lacanobia thalassina</i> (Hufnagel, 1766)				+				+	1
156.	<i>Lacanobia contigua</i> (Denis-Schiffermüller, 1775)				+		+	+		1
157.	<i>Lacanobia suasa</i> (Denis-Schiffermüller, 1775)	+	+	+	+		+	+		1
158.	<i>Hada plebeja</i> (Linnaeus, 1761)	+			+		+		+	1
159.	<i>Aetheria dysodea</i> (Denis-Schiffermüller, 1775)						+			1
160.	<i>Aetheria bicolorata</i> (Hufnagel, 1766)	+			+		+			1
161.	<i>Hadena luteago</i> (Denis-Schiffermüller, 1775)	+							+	2
*162.	<i>Hadena confusa</i> (Hufnagel, 1766)								+	1
163.	<i>Hadena filigrana</i> (Esper, 1790)					+			+	2
*164.	<i>Hadena caesia</i> (Denis-Schiffermüller, 1775)								+	1
165.	<i>Hadena rivularis</i> (Fabricius, 1775)	+			+		+	+	+	1
*166.	<i>Hadena perplexa</i> (Denis-Schiffermüller, 1775)				+		+	+	+	1
*167.	<i>Hadena bircuris</i> (Hufnagel, 1766)	+								1
168.	<i>Heliothis reticulata</i> (Goeze, 1781)				+			+		1
169.	<i>Melanchra persicariae</i> (Linnaeus, 1761)				+			+	+	1
*170.	<i>Melanchra pisi</i> (Linnaeus, 1758)						+	+	+	1
171.	<i>Mamestra brassicae</i> (Linnaeus, 1758)	+	+		+		+	+		1
172.	<i>Polia nebulosa</i> (Hufnagel, 1766)	+						+	+	1
173.	<i>Mythimna turca</i> (Linnaeus, 1761)				+		+	+		1
174.	<i>Mythimna conigera</i> (Denis-Schiffermüller, 1775)	+			+		+		+	1
175.	<i>Mythimna ferrago</i> (Fabricius, 1787)				+		+	+		1
176.	<i>Mythimna albipuncta</i> (Denis-Schiffermüller, 1775)	+	+	+	+		+	+		2
177.	<i>Mythimna vitellina</i> (Hubner, 1808)	+	+	+	+		+			2

Table 1: Continued.

178.	<i>Mythimna pallens</i> (Linnaeus, 1758)	+		+	+		+			+	1
179.	<i>Mythimna comma</i> (Linnaeus, 1761)							+	+		3
180.	<i>Mythimna l-album</i> (Linnaeus, 1767)	+									1
*181.	<i>Mythimna loreyi</i> (Duponchel, 1827)				+						6
182.	<i>Orthosia incerta</i> (Hufnagel, 1766)	+	+	+	+		+				1
183.	<i>Orthosia gothica</i> (Linnaeus, 1758)	+	+	+	+		+				1
184.	<i>Orthosia cruda</i> (Denis-Schiffermüller, 1775)	+	+	+	+		+				2
185.	<i>Orthosia miniosa</i> (Denis-Schiffermüller, 1775)	+			+		+				1
*186.	<i>Orthosia opima</i> (Hubner, 1809)				+						1
187.	<i>Orthosia cerasi</i> (Fabricius, 1785)	+		+	+		+				1
188.	<i>Orthosia gracilis</i> (Denis-Schiffermüller, 1775)	+		+	+		+				1
*189.	<i>Orthosia munda</i> (Denis-Schiffermüller, 1775)		+	+	+						1
190.	<i>Panolis flammea</i> (Denis-Schiffermüller, 1775)			+	+						1
191.	<i>Egira conspicillaris</i> (Linnaeus, 1758)	+	+	+	+		+				2
192.	<i>Tholera cespitis</i> (Denis-Schiffermüller, 1775)	+			+						3
193.	<i>Tholera decimalis</i> (Poda, 1761)	+		+	+						1
194.	<i>Pachetra sagittigera</i> (Hufnagel, 1766)				+		+				1
<b>Noctuinae</b>											
195.	<i>Axylia putris</i> (Linnaeus, 1758)	+		+	+		+			+	1
196.	<i>Ochropleura plecta</i> (Linnaeus, 1761)	+	+	+	+		+		+	+	3
197.	<i>Diarsia brunnea</i> (Denis-Schiffermüller, 1775)							+		+	3
198.	<i>Noctua pronuba</i> (Linnaeus, 1758)	+	+	+	+		+	+		+	1
*199.	<i>Noctua orbona</i> (Hufnagel, 1766)				+						2
200.	<i>Noctua comes</i> (Hubner, 1813)				+					+	2
201.	<i>Noctua fimbriata</i> (Schreber, 1759)	+	+	+	+		+	+		+	2
202.	<i>Noctua janthina</i> (Denis-Schiffermüller, 1775)	+		+			+			+	2
203.	<i>Epilecta linogrisea</i> (Denis-Schiffermüller, 1775)			+			+				2
204.	<i>Lycophotia porphyrea</i> (Denis-Schiffermüller, 1775)				+						1
205.	<i>Chersotis rectangula</i> (Denis-Schiffermüller, 1775)				+		+	+			2
*206.	<i>Eurois occulta</i> (Linnaeus, 1758)								+		3
207.	<i>Opigena polygona</i> (Denis-Schiffermüller, 1775)						+				1
208.	<i>Xestia c-nigrum</i> (Linnaeus, 1758)	+	+	+	+		+	+		+	1
209.	<i>Xestia ditrapezium</i> (Denis-Schiffermüller, 1775)				+		+	+			1
210.	<i>Xestia baja</i> (Denis-Schiffermüller, 1775)	+		+	+	+	+			+	1
211.	<i>Xestia rhomboidea</i> (Esper, 1790)			+			+			+	1
212.	<i>Xestia castanea</i> (Esper, 1790)				+						2
213.	<i>Xestia xanthographa</i> (Denis-Schiffermüller, 1775)	+		+	+		+				2
214.	<i>Cerastis rubricosa</i> (Denis-Schiffermüller, 1775)	+		+	+		+				1
215.	<i>Anaplectoides prasina</i> (Denis-Schiffermüller, 1775)							+	+	+	3
216.	<i>Peridroma sautia</i> (Hubner, 1808)	+	+	+	+		+			+	6
217.	<i>Euxoa obelisca</i> (Denis-Schiffermüller, 1775)		+		+						1
218.	<i>Agrotis crassa</i> (Hubner, 1803)	+			+		+				1
219.	<i>Agrotis epsilon</i> (Hufnagel, 1766)	+	+	+	+	+	+	+			6
220.	<i>Agrotis exclamationis</i> (Linnaeus, 1758)	+	+	+	+		+	+	+	+	1
221.	<i>Agrotis clavis</i> (Hufnagel, 1766)				+				+		1
222.	<i>Agrotis segetum</i> (Denis-Schiffermüller, 1775)	+	+	+	+		+	+	+	+	1
223.	<i>Agrotis cinerea</i> (Denis-Schiffermüller, 1775)				+		+				2
Total	<b>223 species</b>	105	41	79	178	11	128	48	43	72	/

Table 2. Number of night field explorations and number of recorded species per locality.

Locality	1	2	3	4	5	6	7	8	9	Total
Number of field explorations	110	11	9	68	1	20	12	2	7	269
Number of species	105	41	79	178	11	128	48	43	72	223

The largest number of species (Table 2) was recorded at locality 4 (178 species, or 80%) and locality 6 (57%), since these localities were most intensively researched. The number of species recorded at locality 1 (105 or 47%) is large for an urban area. At three localities (7, 8, 9) on Mt. Tara, a total of 115 Noctuidae species (52 %) was recorded, representing the first contribution to knowledge of that mountain's moth fauna.

Analysis of the zoogeographic division of these species (Table 1) showed dominance of Palaearctic (131 or 58.7%) and Mediterranean-Asian (69 or 30.9%) species. Other zoogeographic areas are present with small number of species: Holarctic with 13 (5.8%), Atlantic-Mediterranean with only one species (0.4%), Paleotropical-subtropical with three species (1.3%), and Cosmopolitan with six species (2.6%).

In Table 1, 29 species newly recorded for Western Serbia are marked with an asterisk in front of the ordinal. Among them, the most important finds are:

*Orectis proboscidata* (Herrich-Schaffer, 1851) – This species has Pontomediterranean distribution and was recently recorded in Eastern Serbia (on Mt. Stol and in Brestovačka Banja) (STOJANOVIĆ, 2002). One female was collected at locality 3 on August 9, 2003 (Fig. 1).

*Hydraecia petasitis* (Doubleday, 1847) – Previously in Serbia only one specimen was recorded (in the Homoljske Mts. of Eastern Serbia) (VASIĆ, 2002). One male was collected at locality 4 on July 31, 1999 (Fig. 2).

*Eurois occulta* (Linnaeus, 1758) – This rare mountain species in Serbia has been previously



Fig. 1. *Orectis proboscidata*  
(Herrich-Schaffer, 1851)

Fig. 2. *Hydraecia petasitis* (Doubleday, 1847)

Fig. 3: *Eurois occulta* (Linnaeus, 1758)Fig. 4: *Lygephila procax* (Hubner, 1813)

recorded only on the mountains Kopaonik and Kožnjar (VASIĆ, 2002). A single male specimen was collected at locality 8 (Mt. Tara) on July 3, 1998 (Fig. 3).

Four species new for the region of Central Serbia were recorded:

*Lygephila procax* (Hubner, 1813) – This species was previously recorded only on Mt. Fruška gora (Vojvodina) between the World Wars (VASIĆ, 2002). This is the first specimen after 70 years. One male (Fig. 4) was collected on August 30, 2003 at locality 9 (Mt. Tara).

*Eublemma ostrina* (Hubner, 1808) – The species is very rare in Serbia, recorded according to VASIĆ (2002) in Gnjilane (Kosovo) and Djakovica (Metohija). VAJGAND (1999) lists this species for Sombor. A single female specimen (Fig. 5) was collected on November 25, 2000 at locality 4.

*Parastychitis ypsilon* (Denis-Schiffermüller, 1775) – This is a frequent species in Vojvodina and the vicinity of Belgrade (VASIĆ, 2002). One female (Fig. 6) and one male were collected at locality 7 (Mt. Tara) on July 24, 1996.

*Calliergis ramosa* (Esper, 1786) – This very rare species was previously recorded in Serbia only on Mt. Kožnjar (Kosovo and Metohija) (VASIĆ, 2002). Two female specimens were collected at locality 8 (Mt. Tara) on July 20, 2003 (Fig. 7).

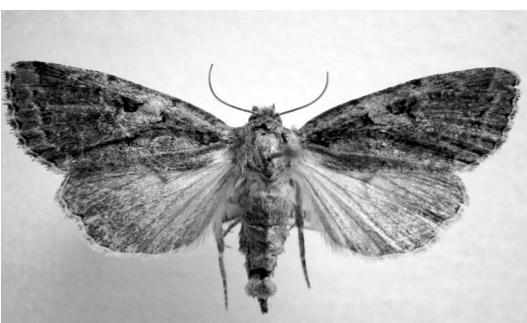
Fig. 5: *Eublemma ostrina* (Hubner, 1808).Fig. 6. *Parastychitis ypsilon* (Denis-Schiffermüller, 1775).

Fig. 7: *Calliergis ramosa* (Esper, 1786)Fig.8: *Zanclognatha zelleralis* (Wocke, 1850)

There was no record of the species *Zanclognatha zelleralis* (Wocke, 1850) for Serbia in the available literature. Our exploration yielded two specimens: one male (Fig. 8), collected on August 3, 1999 at locality 6, whose determination was confirmed by genitalia structure analysis (Fig.10, Fig.11); and one female (Fig. 9) collected on July 30, 2004 at locality 1.

Fig. 9: *Zanclognatha zelleralis* (Wocke, 1850)Fig.10. *Zanclognatha zelleralis* (Wocke, 1850), Male genitaliaFig.11. *Zanclognatha zelleralis* (Wocke, 1850) - Aedeagus

The recorded fauna of Noctuidae will be filled out by exploration of those localities to which attention was not paid this time.

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## **ФАУНА СОВИЦА (ЛЕПИДОПТЕРА: НОКСТУИДЕ)**

### **УЖИЧКОГ КРАЈА У ЗАПАДНОЈ СРБИЈИ**

И. Додок

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Фауна фамилије Noctuidae Србије садржи 524 врсте, али су поједина подручја у Србији недовољно истражена.

У раду су представљена фаунистичка истраживања совица на подручју Ужица (Западна Србија), вршена у периоду од 1995-2005. године, којима је утврђено присуство 18 подфамилија са 223 врсте. Од тог броја, 29 врста се први пут бележи за Западну Србију, а међу њима су најважнији налази следећих врста: *Orectis proboscidata* (Herrich-Schaeffer, 1851) – клисуре Ђетиње; *Hydraecia petasitis* (Doubleday, 1847) – Бела Земља (Ужице); *Eurois occulta* (Linnaeus, 1758) – планина Тара. Четири врсте су нове за централни део Србије: *Lygephila procax* (Hubner, 1813) – планина Тара; *Eublemma ostrina* (Hubner, 1808) – Бела Земља (Ужице); *Parastychitis ypsilon* (Denis-Schiffermüller, 1775) – планина Тара; *Calliergis ramosa* (Esper, 1786) - планина Тара.

У доступној литератури није пронађен податак да је врста *Zanclognatha zelleralis* (Wocke, 1850) забележена на територији Србије, па се сматра новом врстом за фауну Noctuidae Србије. Истраживањима су забележени 1 примерак на Јеловој Гори и 1 примерак у Ужицу.

Највећи број врста - 178 (80 %) је забележен на локалитету Бела Земља у близини Ужица, на планини Јелова Гора 128 врста (57%), у насељу Крчагово у Ужицу 105 врста (47%). На планини Тари је забележено 115 врста совица (52%), што представља озбиљан прилог познавању фауне лептира те планине.

Утврђена фауна Noctuidae биће увећана будућим истраживањима разних локалитета.

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