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# TENTATIVE CHECKLIST OF SERBIAN LEPIDOPTERA WITH REFERENCES

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Front cover illustration:

First illustrated Lepidoptera species in Serbia - *Ostrinia nubilalis* (Hübner, 1796)

[Todorović Ilija (1897) – *Težak*, **28**(1-2): 26–27. Beograd.]





Dedicated to Dr Stoyan Beshkov and  
Ana Nahirnić-Beshkova

# TENTATIVE CHECKLIST OF SERBIAN LEPIDOPTERA WITH BIBLIOGRAPHY

**Abstract.** A tentative checklist of the Lepidoptera species recorded in Serbia is presented based on the existing literature. Each entry is accompanied by references. The present checklist is based on literature sources published from 1809. (Joakim Vujić) and 1862. (Speyer A & Speyer, A.) to the present day. In total, 2.353 species from 79 families and 26 superfamilies are listed.

**Keywords:** Lepidoptera, checklist, Serbia, fauna

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## INTRODUCTION

The first written records about insects in Serbia appeared with the development of the Serbian medieval medicine. In “*Chilandar medical codex, N. 51*”, mid XVI century, we find information on insects important for human and animal health, as well as economic important species, as for instance the domestic silk moth (“svilena buba”) - *Bombyx mori* (Linnaeus, 1758) (Jović, 2006).

With the arrival of Ottoman rule in the Balkan Peninsula, silk farming in Serbia died off. It was renewed only upon the initiative of Maria Theresa (Maria Theresa Walburga Amalia Christina, 1717–1780), who greatly assisted the Serbian entity in Vojvodina, among other things, by stimulating the development of sericulture. There are documents available at the Historical Archive of Pančevo showing that the production of silk originated in 1773 and that the industrial production of silk was initiated in 1769. It is, therefore, understandable why the first book about the silkworm and sericulture in the Serbian language was printed as early as 1823, in the Cyrillic script – a translation of the work by Ludwig Mitterpacher (1823). Sometime later, the book by Emanuel Hofmann (1833) was translated, followed by the work of an anonymous German author (1843) on the same subject. The first local author to publish a book about the silkworm and silk production was a professor of the Serbian Teacher Training School in Sombor, Dimitrije Mita Petrović (1848–1891). Some of these are illustrated on Fig. 1.



Fig.1. Instructions for growing silkworms (Pavle Atanacković, 1823 and Dušan Jedlička, 1950) and the coat of arms of the City of Svilažnac,









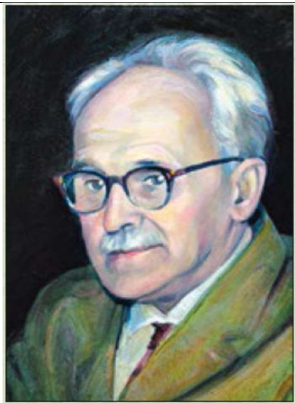

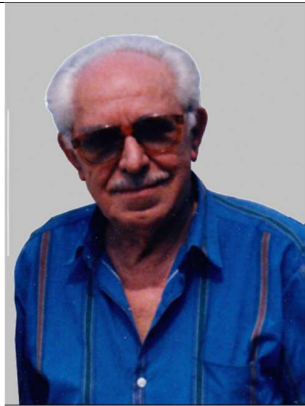
Joakim Vujić (1772–1847) played a pioneering role in giving common names to different butterfly species. Vujić translated the book *Naturgeschichte für Kinder* (by Georg Christian Raff; Göttingen, 1781), one of the leading textbooks of the age. The value of this translation is reflected in the fact that the terms used were scientifically founded. Thus, for example, Vujić introduces the terms day-flying, twilight-flying, and night-flying butterflies and moths. Vujić also gave Serbian names to a number of butterfly species.

Development of agriculture and forestry is based on recognition of experience of Western Europe, which includes the development of knowledge about beneficial and harmful insects. The distribution of that knowledge to the Serbian farmers enabled the launch of the monthly magazine “*Tezak*”. The first issue was published in 1869 and that is where Dobrosav M Jovanovic in 1888 published the first text in Serbian language processing agricultural pest species of Lepidoptera. Since that time an extensive scientific body, which analyzes fauna of Lepidoptera in Serbia, has been established.

The present work is entirely based on the existing literature. Unpublished data from collections are not included. This material has to be examined by specialists and then to be published.

The first European catalog of Lepidoptera species was given by Staudinger & Rebel (1901). It lists 4505 species. Only seven species are listed for Serbia: *Orneodes hübnéri* Wallgr., *Conchyles perfusana* Guenée, *Olethreutes lapideana* H-S., *Grapholitha scopariana* H-S., *Glyphipteryx loricatella* Tr., *Alabonia kindermanii* H-S. and *Adela leucocerella* Sc. Today we know that there are, for example, 5111 species in France alone (Leraut, 1997). The Karsholt & Razowski (1996) catalog lists 10607 species for Europe.

Zečević was first who tried to integrate the existing knowledge about Lepidoptera. Zečević (1996) published a monograph on Lepidoptera of the Serbia, this checklist include 1.334 Lepidoptera species. This is an opportunity to mention, besides them, the other authors from the generation of pioneers who studied Lepidoptera of Serbia, shown in Fig.1.

		
Vujic Joakim (1772 – 1847)	Abafi-Aigner Lajos (1840 - 1909)	Lazarevic Radmilo (1846 - 1899)
		
Rebel Hans (1861 – 1940)	Rothschild Nathaniel Charles (1877 – 1923)	Gradojevic Mihajlo (1885 – 1956)
		
Vukasovic Pavle (1893 – 1973)	Zivojinovic Svetislav (1907 – 1966)	Zecevic Momcilo (1926 – 2003)

**Figure 2.** Pioneers of the Research on the Lepidoptera of Serbia. Three European lepidopterists from the classical period that studied Lepidoptera of Serbia: Abafi Aigner Lajos, Rebel Hans, one of the leading European lepidopterist, Rothschild Nathaniel Charles and six important lepidopterist personalities of Serbia after the turn of the centuries 19th-20th., Vujić Joakim, Lazarević Radmilo, Gradojević Mihajlo, Vukasović Pavle, Živojinović Svetislav and Zečević Momčilo.

Sources: Vujić Joakim: Vikipedija: [Available at

[https://sr.wikipedia.org/sr-ec/%D0%88%D0%BE%D0%B0%D0%BA%D0%B8%D0%BC\\_%D0%92%D1%83%D1%98%D0%B8%D1%9B](https://sr.wikipedia.org/sr-ec/%D0%88%D0%BE%D0%B0%D0%BA%D0%B8%D0%BC_%D0%92%D1%83%D1%98%D0%B8%D1%9B)] [Last accessed: 11 March 2021]; Abafi-Aigner Lajos: Internet, Wikipedia:

[https://hu.wikipedia.org/wiki/Abafi\\_Lajos](https://hu.wikipedia.org/wiki/Abafi_Lajos); Rebel Hans: Schima, C., 1931. Hofrat Prof. Dr. jur. Et phil.

Hans Rebel. Ein Gruss zu seinem 70. Geburtstage. – *Zeitschrift des Österr. Entomologen-Vereines* 16(8-9): 65-71. Rothschild Nathaniel Charles: Internet, Charles Rothschild: The banker who changed the world for good:

<http://www.independent.co.uk/environment/nature/charles-rothschild-the-banker-who-changed-the-world-for-good-7737977.html#gallery> ; Lazarević Radmilo: Stanojević, V., 1956. Dr Mihajlo Radmilo Lazarević. –

*Srpski Arhiv za celokupno lekarstvo* 84(6): 821-823. Beograd. Gradojević Mihailo: Vasić, K., 1960. Naučni i stručni rad profesora dr Mihaila Gradojevića. – *Zaštita bilja* 57-58: 5-14. Beograd. Vukasović Pavle: Popović, M. (ed.), 2014. 60 godina Poljoprivrednog fakulteta u Novom Sadu: 1954-2014. – *Poljoprivredni fakultet* str. 1-182. Novi Sad. Živojinović Svetislav: Tomić, D., Mihajlović, Lj., 2001. Svetislav Živojinović (1907 – 1966). – *Život i delo srpskih naučnika, SANU* , 7: 475-502. Beograd. Zečević Momčilo: Photo archive dr Dragan Vajgand.

## METHODS

The purpose of this paper is to summarize the current knowledge on the Lepidoptera of Serbia. All known species are mentioned and the bibliography is listed. The main purpose of this paper is to stimulate further research that one day will lead to a satisfactory level of knowledge of this group. We try to use a form of presentation that enables users to find the relevant literature data of each species as easy as possible. At the same time this is a guarantee that the check list does not include any species for which there are no published data.

A new classification system of Lepidoptera (Van Nieukerken et al., 2011), was recently published and is largely different in details related to system of Karsholt & Razowski (1996). However, bearing in mind that the entire existing literature is based on the Karsholt & Razowski system, we use here that system. Only in the superfamily Pyraloidea, the families Pyralidae and Crambidae have been separated, but still retaining the order and numbering of the Karsholt and Razowski system.

Apart from the valid names of species, the synonyms used in literature are if they refer to Serbian territory. Common names are also added, whenever available.

This work covers the entire territory of the Republic of Serbia: Vojvodina in the North, Central Serbia, and Kosovo and Metohija in the South (Figure 3, Appendix 1).



**Figure 3.** The map of Serbia.

(Source: Anonymous, 2021. Reljefna mapa Srbije. – Serbiemap.Net 2009–2021.

URL: [http://serbiemap.net/mapview.html?mapname=karta\\_srbije](http://serbiemap.net/mapview.html?mapname=karta_srbije))

The surveyed localities are shown on Appendix 1

I have many of the cited references as PDF files, so I can send them to potentially interested colleagues. Also, I would like to ask the colleagues to send me PDF files of any files that have remained unknown to me via the email address: [jaksicpredrag@gmail.com](mailto:jaksicpredrag@gmail.com)

Or, if they are in printed form, at the address:  
Jakšić Predrag, Čingrija 14/25, 11000 Beograd, Serbia.