New and interesting Lepidoptera from the Balkans (Serbia, Croatia, Bosnia and Montenegro)

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Summary

Based on the maps provided by Karsholt & Nieukerken (2004), 30 species of Lepidoptera are reported for the fauna of Croatia, Bosnia, Serbia and Montenegro, which have not been included in these maps up to now. The specimens have been caught, photographed or observed during the course of several excursions since 1979, partly in cooperation with the National Parks of Deliblatska Pescara, Djerdap and Fruska Gora (all Serbia), as well as with the Institute for Nature Conservation of Serbia, Novi Sad.

Keywords

Balkans, faunistic records, Lepidoptera

Zusammenfassung

Unter Bezug auf die Verbreitungsangaben bei Karsholt & Nieukerken (2004), werden 30 Arten von Lepidoptera aus Kroatien, Bosnien, Serbien und Montenegro behandelt, die für diese Länder in den Verbreitungsdaten nicht aufscheinen. Die Exemplare wurden während mehrerer Exkursionen seit 1979 gefangen, fotografiert oder auch nur beobachtet, teilweise in Zusammenarbeit mit den Nationalparks Deliblatska Pescara, Djerdap und Fruska Gora (alle Serbien), sowie dem Institute for Nature Conservation of Serbia, Novi Sad.

Introduction

During the 19th and early 20th century, many lepidopterists like Zeller (1868) or Rebel (1904) have focussed their studies also on the Balkans, especially on those regions, which have been part of the former Austrian Empire. With the breakdown of this Empire after World War I, the intense of these studies has decreased significantly, especially in former Yugoslavia and especially with regard to Microlepidoptera (e.g. KLIME-SCH 1942, 1968). Only recently, several new species of the so called Macrolepidoptera have been reported as new for Serbia by Stojanović (2002a, 2002b, 2006) and Stojanović & GLAVENDEKIĆ (2003). During excursions to Croatia (Michael Kurz, Marion Kurz & Christof Zeller-Lukashort), Bosnia and Montenegro (Michael Kurz & Christof Zeller-Lukashort) and Serbia (Laslo Horvat & Michael Kurz) the focus of interest has been set to Microlepidoptera including the Psychids, which resulted in several new findings, compared to recent reports in Fauna Europaea (Karsholt & Nieukerken 2004). Additional specimens have been caught by Dejan Stojanović in the Fruska Gora National Park (Serbia, Vojvodina).

Material and Methods

Usual methods for collecting Lepidoptera have been used, including netting, attraction by UV-light and rearing. Where possible and appropriate, animals have been photographed. In several cases, specimens have only been observed in nature, without being collected or photographed. Anyhow, every record is traced and stated to be provable by collected specimens or photographs or not provable by means of ob-

servation only. All recorded data have also been published on the Internet (Kurz, Kurz & Zeller 2009).

Abbreviations

SCG: Srbija, Crna Gora = Serbia and Montenegro

List of locations (coordinates according to WGS84, precision < 500 m unless stated otherwise)

Bosnia, Vrbas, near Jajce: 44° 23.232' N, 17° 16.707' E, 300 m a s l

Croatia, Dalmatia, near Dubrovnik, Cilipi, Poljice: 42° 29.678' N, 18° 22.508' E, 400 m a.s.l.

Croatia, Rab, Misnjak: 44° 42.34' N, 14° 51.28' E \pm 1000 m, 30 \pm 15 m a.s.l.

Croatia, Rab, Lopar: 44° 49.94' N, 14° 43.63' E \pm 2000 m Croatia, Velika Kapela, near Senj, Povile: 45° 6.97' N, 14° 49.41' E \pm 2000 m, 150 ± 20 m a.s.l.

Croatia, Velika Kapela, near Crikvenica, Jadranovo: 45° 13.867' N, 14° 37.1' E, 200 m a.s.l.

Montenegro, Herceg-Novi, Igalo: 42° 28.219' N, 18° 30.358' E, 147 m a.s.l.

Serbia, B. Banja-icic, Bor: 44° 05.52' N, 22° 06.13' E \pm 5000 m

Serbia, Djerdap, Golubac: 44° 39.5' N, 21° 40.3' E, 90 m a.s.l.

Serbia, Djerdap, Iron Gate: 44° 37.553' N, 22° 16.767' E, 90 m a.s.l.

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Serbia Vojvodina, Deliblatska Pescara National Park, several locations: 44° 55′ N, 21°08′ E ± 5000 m, 130 ± 40 m a.s.l.

Serbia, Vojvodina, Karavukovo, several locations: 45° 28.7 N, 19° 10.2 E \pm 2000 m, 87 \pm 8 m a.s.l

Serbia, Vojvodina, Fruska Gora, Beocin-Manast: 45° 12.65 N, 19° 43.3 E \pm 5000 m

Serbia, Vojvodina, Fruska Gora, Ledinci-Rasadnik: precise locality unknown

Serbia, Vojvodina, Fruska Gora, Ledinci-Stokuca: precise locality unknown

Serbia, Vojvodina, Fruska Gora, Lezimir-Ravne: 45° 7.22' N, 19° 34.71' E \pm 5000 m

Serbia, Vojvodina, Fruska Gora, Vorovo: 45° 08' N, 19° 23' E \pm 5000 m

Serbia, Vojvodina, Fruska Gora, Osovlje: precise locality unknown

Serbia, Vojvodina, near Novi Sad, Cortanovci: 45° 08.76' N, 20° 1.27' E \pm 2000 m

Serbia, Vojvodina, near Novi Sad, Detelinara: 45° 15,9 N, 19° $48,7 \to 2000 \text{ m}$

Serbia, Vojvodina, near Novi Sad, Grgurevacki, Lovacki Dom: 45° 6' N, 191° 39' E ± 5000 m

Results and Discussion (species in taxonomical order):

Micropterix facetella Zeller, 1850: Not reported for SCG in Karsholt & Nieukerken (2004)

Montenegro, Herceg-Novi, Igalo, 2003.05.02, leg. Zeller & Kurz: several specimens in coll. Michael Kurz and Christof Zeller.

The species has been reported so far only from Slovenia and Croatia, where it is widespread along the Dalmatian coast. Not surprisingly, it has recently also been found in Montenegro.

Incurvaria masculella ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Fruska Gora, Vorovo, 2006.04.27, leg. Stojanović: 1 \circlearrowleft in coll. Michael Kurz.

The species is already known from most other Balkan countries.

Incurvaria pectinea (Haworth, 1828): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Fruska Gora, Vorovo, 2006.04.27, leg. Stojanović: 1 \circlearrowleft , 2 \circlearrowleft in coll. Michael Kurz.

On the central and southern Balkans, the species is known only from Croatia, Albania and Macedonia.

Nematopogon pilella ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia Vojvodina, Deliblatska Pescara National Park, 2005.05.05, leg. Kurz & Horvat: 1 3 in coll. Michael Kurz.

Only scarcely recorded from the western Balkans, there seem to be no data from Bosnia, Serbia, Montenegro and Macedonia. Otherwise, the species is widespread across Europe except the Iberian Peninsula, although it seems to be preferably a lowland species.

Cauchas fibulella ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Karavukovo, 2007.05.18: several specimens photographed on *Veronica chamaedrys* L.

From the central and southern Balkans, the species has been recorded so far only from Albania and Macedonia. It is a common and characteristic species, mostly associated with *Veronica chamaedrys* L., a plant, on which it has recently also been found in the Vojvodina, Serbia. The imagines suck on the blossoms, whereas the larvae are said to feed on the leaves of *Veronica chamaedrys*.

Adela reaumurella (Linnaeus, 1758): Not reported for SCG in Karsholt & Nieukerken (2004)

Montenegro, Herceg-Novi, Igalo, 2003.05.02: 1 $\stackrel{\wedge}{\circlearrowleft}$ photographed

Serbia, Vojvodina, Deliblatska Pescara National Park, 2005.05.05: several specimens photographed

Serbia, Vojvodina, Fruska Gora, Vorovo, 2006.04.27, leg. Stojanović: 1 \circlearrowleft , 1 \circlearrowleft in coll. Michael Kurz

Astonishingly, this widespread species has not been recorded for SCG so far, although it is known from most other Balkan countries except Greece.

Adela cuprella ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Fruska Gora, Vorovo, 2006.04.27, leg. Stojanović: 1 \circlearrowleft in coll. Michael Kurz

So far, there have been no records of this Adelid moth from the central and southern Balkans. Otherwise, the species is known from most European countries, although it does not seem to be very abundant anywhere.

Antispila treitschkiella (Fischer von Röslerstamm, 1843): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Karavukovo, 2007.05.18, mine in *Cornus mas*: observation only

The mine is of the first generation of the species, which has recently been attributed to *Antispila stachjanella* Dziurzynski, 1948, a taxon, that is now regarded to be synonymous with *A. treitschkiella*. The species has not been recorded so far from most countries of former Yugoslavia. Otherwise it is distributed from Great Britain throughout central Europe to south-eastern Europe.

Eumasia parietariella (Heydenreich, 1851): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Djerdap, Iron Gate, 2005.05.07: several larvae, photographed on limestone rocks, bags in coll. Michael Kurz

Croatia, border to Slovenia between Portoroz and Buje, 1993.04.08: bags in coll. Michael Kurz

The species is distributed in central and southern Europe only, with data missing from Slovenia, Bosnia and SCG. It can frequently be found on limestone rocks in sunny localities.

Postsolenobia banatica (M. Hering, 1922): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Djerdap, Iron Gate, 2005.05.07: several larvae and bags photographed on limestone rocks, emerged imagines and bags in coll. Michael Kurz

P.banatica has been recorded so far only from Hungary and

Romania. Since it is known already from the Romanian side of the Iron Gate (Arnscheid 1988), not astonishingly it has now also been found on the Serbian side.

Taleporia tubulosa (Retzius, 1783): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Djerdap, Iron Gate, 2005.05.07: 1 bag in coll. Michael Kurz

Although widespread throughout Europe and mostly abundant in many localities, records are missing from some eastern European regions, as well as from some western and southern Balkan countries.

Psyche casta (Pallas, 1767): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Fruska Gora, Osovlje, 2005.05.04 e.l. 2005.05.27, leg. Stojanović: 1 $^{\circ}$ and bag in coll Michael Kurz

Serbia, Vojvodina, near Novi Sad, Detelinara, 2004.04.19 e.l. 200405.09, leg. Stojanović: 1 \circlearrowleft in coll. Michael Kurz

Serbia, Vojvodina, near Novi Sad, Cortanovci, 2004.05.20 e.p. 2004.05.26 and 2004.06.06, leg. Stojanović: 2 \circlearrowleft and bags in coll. Michael Kurz

Serbia, Vojvodina, Fruska Gora, Beocin-Manast, 2001.04.15, leg. Stojanović: 1 ♂ and bag in coll. Michael Kurz

Serbia, Vojvodina, near Novi Sad, Grgurevacki, Lovacki Dom, 2005.07.06, leg. Stojanović: 1 ♂ in coll. Michael Kurz

On the Balkans, only records from Bosnia and SCG of this otherwise widespread species have been missing.

Psyche crassiorella Bruand, 1851: Not reported for Bosnia and SCG in Karsholt & Nieukerken (2004)

Montenegro, Herceg-Novi, Igalo, 2003.05.02: 4 bags in coll. Christof Zeller and Michael Kurz

Bosnia, Vrbas, near Jaice, 2003.05.04: observation only Serbia, Djerdap, Golubac, 2005.05.07 e.p. 2005.05.30: 1 ♂ and 2 bags in coll. Michael Kurz

Serbia, Djerdap, Iron Gate, 2005.05.07: 4 bags in coll. Michael Kurz

Serbia, Vojvodina, Fruska Gora, Ledinci-Rasadnik, 2004.04.28 e.p. 2004.05.10, leg. Stojanović: 1 ♂ and bag in coll. Michael Kurz

Serbia, Vojvodina, Fruska Gora, Ledinci-Stokuca, 2004.05.12 e.p. 2004.05.15, leg. Stojanović: 2 \circlearrowleft and 2 bags in coll. Michael Kurz

Serbia, Vojvodina, near Novi Sad, Detelinara, 2004.04.19 e.l. 2004.05.09, leg. Stojanović: 1 \circlearrowleft and bag in coll. Michael Kurz

Records from Bosnia and SCG have been missing so far. Otherwise, the species is widespread in Europe and only in eastern Europe records are scarce.

Epichnopterix kovacsi (Sieder, 1955): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, near Novi Sad, Detelinara, 2004.04.19, leg. Stojanović: 2 ♂ ♂ in coll. Michael Kurz

Serbia, Vojvodina, Fruska Gora, Lezimir-Ravne, 2005.04.07, leg. Stojanović: 1 ♂ in coll. Michael Kurz

Serbia, B. Banja-icic, Bor. Srbija, 2005.05.02, leg. Stojanović: 1 ♂ in coll. Michael Kurz

The species has been known from the southern and eastern parts of Central Europe, as well as from the northern Balkans. Not astonishingly, it has now also been recorded for Serbia.

Megalophanes viciella ([Denis & Schiffermüller], 1775): Not reported for Croatia and SCG in Karsholt & Nieukerken (2004)

Croatia, Velika Kapela, near Crikvenica, Jadranovo, 1990.06.16: 1 bag in coll. Michael Kurz

Serbia Vojvodina, Deliblatska Pescara National Park, 2005.05.05: 1 larva photographed

The species is distributed mainly in the eastern and south eastern parts of Europe, although records from the western Balkans have been missing so far.

Phalacropterix graslinella (Boisduval, 1852): Not reported for Croatia in Karsholt & Nieukerken (2004)

Croatia, Velika Kapela, near Crikvenica, Jadranovo, 1990.06.16: 1 adult and 1 juvenile (e.l.) bag in coll. Michael Kurz

Croatia, Rab, Misnjak, 1979.08.25: 1 bag in coll. Michael Kurz

Croatia, Velika Kapela, near Senj, Povile, 1990.06.14: 2 juvenile (e.l.) bags in coll. Michael Kurz

Records have been missing so far from all Balkan countries, although the species is widespread otherwise in central, northern and eastern Europe.

Phalacropterix praecellens (Staudinger, 1870): Not reported for Croatia in Karsholt & Nieukerken (2004)

Croatia, Rab, Lopar, 1979.08.24: 1 bag in coll. Michael Kurz On the Balkans, the species has been known so far only from Slovenia, Macedonia and Greece.

Canephora hirsuta (Poda, 1761): Not reported for SCG in Karsholt & Nieukerken (2004) Serbia, Djerdap, Iron Gate, 2005.05.07: 1 bag in coll. Michael Kurz

Serbia, Vojvodina, Karavukovo, 2007.05.18: 1 bag (\circlearrowleft) in coll. Michael Kurz

The species is widespread in Europe, although records from a large part of eastern Europe, as well as Bosnia and SCG have been missing.

Yponomeuta cagnagella (Hübner, 1813): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia Vojvodina, Deliblatska Pescara National Park, 2005.05.06, several larvae feeding on *Evonymus europaea* L.: observation only

Serbia, Vojvodina, Karavukovo, 2007.05.18: 1 larva feeding on *Evonymus europaea* L.: observation only

Although widespread throughout Europe, the species has not been reported from the whole of former Yugoslavia.

Roeslerstammia pronubella ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004) Serbia, Vojvodina, Fruska Gora, Vorovo, 2006.04.27, leg. Stojanović: 6 specimens in coll. Michael Kurz (gen. det.) So far, the species has been known only from Great Britain and throughout central Europe to Hungary and Romania. Nevertheless, its occurrence in the Vojvodina, which is part of the Pannonian lowlands, is not at all astonishingly.

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Antophila fabriciana (Linnaeus, 1767): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Karavukovo, 2007.05.18. 2 specimens, 1 photographed

The species is known throughout Europe. On the Balkans, records from Slovenia, SCG and Macedonia have been missing so far.

Glyphipterix simpliciella (Stephens, 1834): Not reported for Croatia and SCG in Karsholt & Nieukerken (2004)

Croatia, Dalmatia, near Dubrovnik, Cilipi, Poljice, 2003.05.03: 1 specimen in coll. Michael Kurz

Serbia, Vojvodina, Karavukovo, 2007.05.18: 1 specimen photographed on *Veronica chamaedrys* L..

There have been no records of *G. simpliciella* from the Balkans so far, except Hungary, Romania and Greece.

Cataclysta lemnata (Linnaeus, 1758): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Futog, 2007.05.19: several specimens photographed

The species is distributed in most European countries, although there have been some gaps in eastern and southern Europe. One of these gaps could now be closed.

Elophila nymphaeata (Linnaeus, 1758): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Futog, 2007.05.19: 1 \circlearrowleft in coll. Michael Kurz

The distributional recording pattern of *E. nymphaeata* is very similar to that of the preceding species.

Pyrausta nigrata (Scopoli, 1763): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Deliblatska Pescara National Park, 2005.05.05: observation only

The widespread species has not been reported so far from the central and southern Balkans. Records are also absent from most eastern and northern European countries.

Loxostege deliblatica Szent-Ivány & Uhrik-Meszáros, 1942 (= huebneri Koçak, 1980): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Deliblatska Pescara National Park,

2005.05.05: 1 ♂ in coll. Michael Kurz

Despite its valid scientific name, the species has not been included in the reporting of Karsholt & Nieukerken (2004) from SCG. Otherwise the species is known from eastern and south eastern Europe only, with no data from most western Balkan countries so far.

Sitochroa verticalis (Linnaeus, 1758): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Futog, 2007.05.19: 1 $\stackrel{>}{\circlearrowleft}$ in coll. Michael Kurz

The species has been reported from most European countries, except from eastern Europe, and has been missing so far also from SCG.

Anania verbascalis ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Deliblatska Pescara National Park, 2005.05.06: 1 $\stackrel{\wedge}{_{\sim}}$ in coll. Michael Kurz

Serbia, Vojvodina, Futog, 2007.05.19: 1 \circlearrowleft in coll. Michael Kurz

Although *A. verbascalis* seems to be widespread throughout Europe, records are missing from most eastern and northern European countries. On the Balkans, there have been no data from Slovenia and SCG.

Scotopteryx coarctaria ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Deliblatska Pescara National Park, 2005.05:05:1 ♂ in coll. Michael Kurz

This species is known almost throughout the whole of Europe, excluding the north-western and northern parts.

Lomographa temerata ([Denis & Schiffermüller], 1775): Not reported for SCG in Karsholt & Nieukerken (2004)

Serbia, Vojvodina, Deliblatska Pescara National Park, 2005.05.06: photographed

There have been no data of this species from the western and southern Balkans, although it is known from Romania, Bulgaria and Macedonia.

Acknowledgements

We wish to thank Dejan Stojanović (NP Fruska Gora, Serbia) for providing several specimens, Nenad Radaković (Director of NP Djerdap, Serbia) for providing literature and his allowance for performing studies in the Danube ravine and especially Oldja Marius (Director of NP Deliblastka Pescara,

Serbia) and Vesna Habijan-Mikes with her colleagues (Institute for Nature Conservation in Serbia, Novi Sad) for accomplishing and hosting us during our visit to Serbia in 2005 and for guiding us to many interesting localities.

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