

FAUNISTIC RECORDS OF SOME MICROLEPIDOPTERA FROM CROATIA

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Faunistic data concerning 98 species of Lepidoptera recorded during several trips to Croatia are presented. In total, 47 species are mentioned for Croatian fauna for the first time, and of them *Depressaria halophilella* and *Assara conicolella* are simultaneously new species for Balkan peninsula. Records of *Charadraula cassandra* are reported from the European mainland for the second time and those of *Neurothaumasia tenuipennella* are the first besides the type material. Photographs of adults of *Infurcitinea vanderwolffi* are published for the first time.

Key words: Lepidoptera, faunistic records, Croatia, Balkans

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U radu se navode podaci o fauni 98 vrsta leptira koje su zabilježene tijekom nekoliko izleta u Republiku Hrvatsku. Prvi se put u fauni Hrvatske spominje 47 vrsta, a *Depressaria halophilella* i *Assara conicolella* nove su na Balkanskom poluotoku. Vrsta *Charadraula cassandra* po drugi put je pronađena na europskom kopnu, a *Neurothaumasia tenuipennella* predstavlja prvi nalaz na europskom kopnu. Fotografije odraslih primjeraka vrste *Infurcitinea vanderwolffi* objavljene su po prvi put.

Ključne riječi: Lepidoptera, nalazi faune, Hrvatska, Balkan

Introduction

The Croatian fauna of Microlepidoptera has been more or less intensively studied since the first decades of the 19th century. Among influential entomologists working during that era in Croatia were for example Vincenz Kollar and Friedrich Zincken in the southern part of the country (Dalmatia) and especially Josef Johann Mann, whose province from the 1850s was the area of Rijeka and later also Dalmatia. The first descriptions of Microlepidoptera began to appear – e.g. *Scoparia perplexella* (Zeller, 1839) described on material from the environs of Rijeka (formerly Fiume). During the same time the list of Microlepidoptera-specialized lepidopterologists started to extend rapidly, often with famous names, e.g. Wilhelm Krone, Ludwig Osthelder, Hans Zerny and others. Special attention should go to Hans Rebel, an entomological great of his era. His contribution to the Croatian lepidoptera fauna consisted not only in collecting (during the beginning of the 20th century

he worked on Lokrum island close to Dubrovnik) but also and above all in his willingness to help both indigenous and foreign amateur entomologists, mainly with the identification of collected material. That kind of cooperation often resulted in descriptions of new species. An illustrative example could be *Xenopathia novaki* (Rebel, 1891) – a small species of the family Blastobasidae, named after its discoverer – coleopterologist Petar Novak (1879–1968), one of the most influential Croatian entomologists during the interwar period. Many other names of both Croatian and foreign entomologists were exhaustively compiled by Durbešić (2011). Results of their work as well as activities of other unmentioned colleagues helped considerably in the making of the first lists of European small moths (Wocke, 1871, Rebel 1901). But the data regarding Croatia can only partly be found, that is, only from Dalmatia (including Montenegro). An additional overall list of Microlepidoptera (as a part of the European list of Lepidoptera) was published after nearly a hundred years (Karsholt & Razowski, 1996), but with the data from Croatia presented under the territory of former Yugoslavia. The first comprehensive list of Microlepidoptera for Croatia on its own came into the world quite recently in the form of the internet database of Fauna Europaea (Karsholt & van Nieuwerkerken, 2011).

The aim of this paper is to contribute to the knowledge of Croatian lepidopteran fauna.

Material and Methods

In the period of 1994–2008 and also during several family holiday visits to the Croatian coast, I had several opportunities to study the Croatian Lepidoptera fauna. Since the distribution of numerous species still remains unsatisfactorily known and many of them are recorded as new for Croatia, I decided to summarize the data in this paper as a contribution to the knowledge of Croatian fauna.

The main collecting method was attraction to light sources. If not stated otherwise, the material was captured and determined by author. All presented data are documented by voucher specimens deposited in author's collection.

The nomenclature and currently known distribution of species was confronted with the up to date of Fauna Europaea (Karsholt & van Nieuwerkerken, 2012), therefore this source is not mentioned in the subsequent text repeatedly. Other faunistic sources are mentioned only if concerning data not indicated in the Fauna Europaea database.

Results

Nepticulidae

Stigmella irregularis Puplesis, 1994

Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂ (det. A. Laštůvka).

Known from Italy, Greece and Ukraine (locus typicus: Crimea). First record for Croatia.

***Ectoedemia liebwerdella* Zimmermann, 1940**

Biograd, 5.–12.vii.2003, 2 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂. All det. A. Laštůvka.

Widely distributed species, but hitherto without published records from Croatia. First record for Croatia.

Tineidae

***Matratinea rufulicaput* Sziraki & Szocs, 1990**

Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♀.

Hitherto known from Hungary (locus typicus) and Greece, later recorded also in the Czech Republic and Bulgaria (Šumpich et al., 2009, Gaedike 2010, 2011a). First record for Croatia (Figure 1).

***Neurothaumasia tenuipennella* Gaedike, 2011**

Pag, Novalja – Potočnica, 26.–30.viii.2001, 2 ♂.

Recently described species, hitherto known only from Romania, Greece, Crete and Croatia (Krk Island) (Gaedike, 2011a). Presented records are the second from Croatia (Figure 2) and the first outside the type localities.

***Infurcitinea graeca* Gaedike, 1983**

Marušići, 3.–17.viii.2008, 2 ♀ (det. R. Gaedike).

Known only from Greece (incl. some islands) and Cyprus. First record for Croatia (Figure 3).

***Infurcitinea vanderwolfi* Gaedike, 1997**

Pirovac env., Tisno, 15.–17.vii.2003, 12 ♂, 4 ♀; Žuljana, 1.–13.vii.2005, 2 ♂ (det. R. Gaedike).

Recently described species, hitherto known from Greece (locus typicus), Bulgaria and Croatia (Gaedike, 2011a, 2011b, including the author's records from Tisno and Žuljana). Illustrations of adults of this species are presented for the first time here (Figure 4–5).

***Nemapogon falstriella* (Bang-Haas, 1881)**

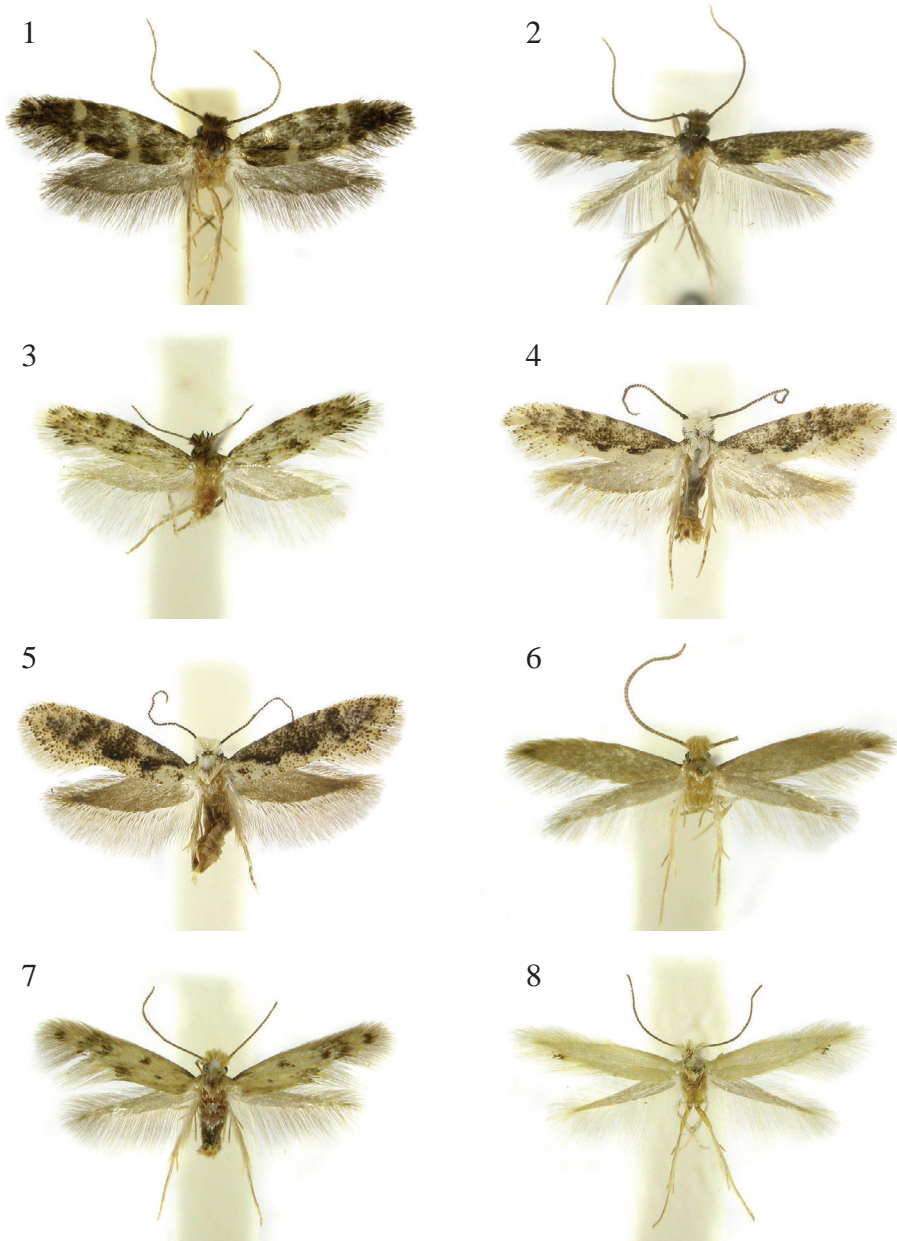
Pakoštane near Biograd, 15.–17.vii.2003, 1 ♂.

Locally distributed in Europe, mainly in central and northern parts, found also in France, Greece and Croatia. In Croatia recorded only in Krk Island (Gaedike & Baldizzone, 2008).

***Ischnoscia borreonella* (Millière, 1874)**

Biograd, 5.–12.vii.2003, 3 ♂ (det. R. Gaedike).

A rare species, distributed mainly in western Europe. Known also from Romania and recently recorded also in Croatia (Krk Island) (Gaedike & Baldizzone, 2008) (Figure 6).



Figures 1–8. Voucher specimens of some significant records. 1. *Matratinea rufulicaput* Sziraki & Szocs, 1990. Žuljana. 2. *Neurothaumasia tenuipennella* Gaedike, 2011. Novalja – Potočnica. 3. *Infurcitinea graeca* Gaedike, 1983. Marušići. 4–5. *Infurcitinea vanderwolfi* Gaedike, 1997. 4. Male. 5. Female. 6. *Ischnoscia borreonella* (Millière, 1874). Biograd. 7. *Novotinea klimeschi* (Rebel, 1940). Tisno. 8. *Bucculatrix cantabricella* Chretien, 1898. Marušići.

***Novotinea klimeschi* (Rebel, 1940)**

Marušići 3.–17.viii.2008, 1 ♂, 2 ♀; Pirovac env., Tisno, 23.viii.2004, 1 ♂, 2 ♀; Biograd, 5.–12.vii.2003, 1 ♀ (det. R. Gaedike).

Known only from the Balkan peninsula, with the northern limit of its distribution passing through Croatia. Figure 7.

***Stenoptinea cyaneimarmorella* (Milliere, 1854)**

Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂, Biograd, 5.–12.vii.2003, 1 ♂.

Widely distributed in Europe, but without evidence from Croatia so far. First record from Croatia.

Bucculatricidae

***Bucculatrix cristatella* (Zeller, 1839)**

Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♀ (det. Z. Tokár).

Widely distributed species in Europe, absent in the most southern countries. In the Balkans hitherto recorded only in Romania. First record for Croatia.

***Bucculatrix pseudosylvella* Rebel, 1941**

Marušići 3.–17.viii.2008, 14 ♂ (det. A. Laštůvka).

Known only from Macedonia (locus typicus), Portugal and Turkey. First record for Croatia.

***Bucculatrix cantabricella* Chretien, 1898**

Marušići 3.–17.viii.2008, 1 ♀ (det. Z. Tokár).

Known only from a few southern and central European countries – Portugal, Spain, France (locus typicus), Italy, Hungary; in the Balkans recorded in Romania, Macedonia and Serbia. First record for Croatia (Figure 8).

Gracillariidae

***Metriochroa latifoliella* (Milliere, 1886)**

Biograd, 5.–12.vii.2003, 5 ♂ (det. A. Laštůvka).

South European species (locus typicus: France), in the Balkans known only from Greece. New species for Croatia.

***Phyllonorycter delitella* (Duponchel, 1843)**

Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂ (det. A. Laštůvka).

Widely distributed in southern countries, but in Croatia without published data so far. First record for Croatia.

***Phyllonorycter distentella* (Zeller, 1846)**

Biograd, 5.–12.vii.2003, 3 ♂ (det. A. Laštůvka).

Locally distributed in many European countries, absent in the north. The occurrence in the Balkans is mentioned only by De Prins & De Prins (2005), from Croatia, but without faunistic details.

***Phyllonorycter kuhlweiniella* (Zeller, 1839)**

Krk island, Baška, 30.iv.2002, 1 ♂ (det. A. Laštůvka).

Widely distributed in Europe. First record for Croatia.

Yponomeutidae

***Zelleria hepariella* Stainton, 1849**

Senj distr., Sveti Juraj, 29.iv.2002, 3 ♂; Marušići, 3.–17.viii.2008, 1 ♂.

Widely distributed species. First records from Croatia (Krk Island) were reported by Habeler (2003).

Bedelliidae

***Bedellia ehikella* Szocs, 1967**

Marušići, 3.–17.viii.2008, 10 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂. All det. A. Laštůvka.

Locally distributed in western, central and southern Europe. In the Balkans known only from Croatia (Figure 9).

Autostichidae

***Charadraula cassandra* Gozmany, 1967**

Pirovac env., Tisno, 13.–18.vii.2007, 7 ♂, 2 ♀.

Known from Syria (locus typicus), Turkey and Cyprus. In Europe recorded only in Romania and Crete (Gozmány 2000). First record for Croatia (Figures 10–11).

Oecophoridae

***Denisia luctuosella* (Duponchel, 1840)**

Senj distr., Sveti Juraj, 29.iv.2002, 1 ♀.

Rarely recorded in western and central Europe, in the Balkans known only from Romania. First record for Croatia.

***Decantha borkhausenii* (Zeller, 1839)**

Marušići, 3.–17.viii.2008, 1 ♀.

Sparsely distributed in all parts of Europe, in the Balkans known from Romania and Greece. First record for Croatia.

***Batia lambdella* (Donovan, 1793)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♀; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂; Marušići, 3.–17.viii.2008, 1 ♀.

Mainly south European species, in the Balkans listed from Romania, Macedonia and Greece. The only records from Croatia were given by Habeler (2003) from Island of Krk.

Elachistidae

***Elachista atrisquamosa* Staudinger, 1880**

Pirovac env., Tisno, 28.iv.2002, 1 ♂, 23.viii.2004, 1 ♂; Krk island, Baška, 30.iv.2002, 1 ♂. All det. J. Liška.

Known only from Italy, Austria, Greece and Turkey (locus typicus). First record for Croatia.

***Elachista constitella* Frey, 1859**

Pirovac env., Tisno, 13.–20.viii.2007, 14 ♂ (det. J. Liška).

A rare species, known only from Croatia (locus typicus), Italy and Russia.

***Elachista contaminatella* Zeller, 1847**

Krk island, Soline, 1.v.2002, 3 ♂ (det. J. Liška).

Distributed from Portugal to Russia, but in the Balkans recorded only in Croatia (Habeler, 2003) and Bulgaria.

***Elachista dispunctella* (Duponchel, 1843)**

Pirovac env., Tisno, 13.–20.viii.2007, 1 ♂ (det. J. Liška).

Known from western, central and eastern Europe. In the Balkans previously recorded only in Romania. First record for Croatia.

***Elachista heringi* Rebel, 1899**

Krk island, Soline, 1.v.2002, 3 ♂; Pirovac env., Tisno, 28.iv.2002, 1 ♂. All det. J. Liška. Locally known from western, central and eastern Europe, in the Balkans only from Romania. First record for Croatia.

***Elachista spumella* Caradja, 1920**

Pirovac env., Tisno, 13.–20.viii.2007, 6 ♂ (det. J. Liška).

Hitherto known only from a few European countries, namely Italy, Austria, Hungary, the Czech Republic, Slovakia and Russia (locus typicus). First country record.

***Elachista squamosella* (Duponchel, 1843)**

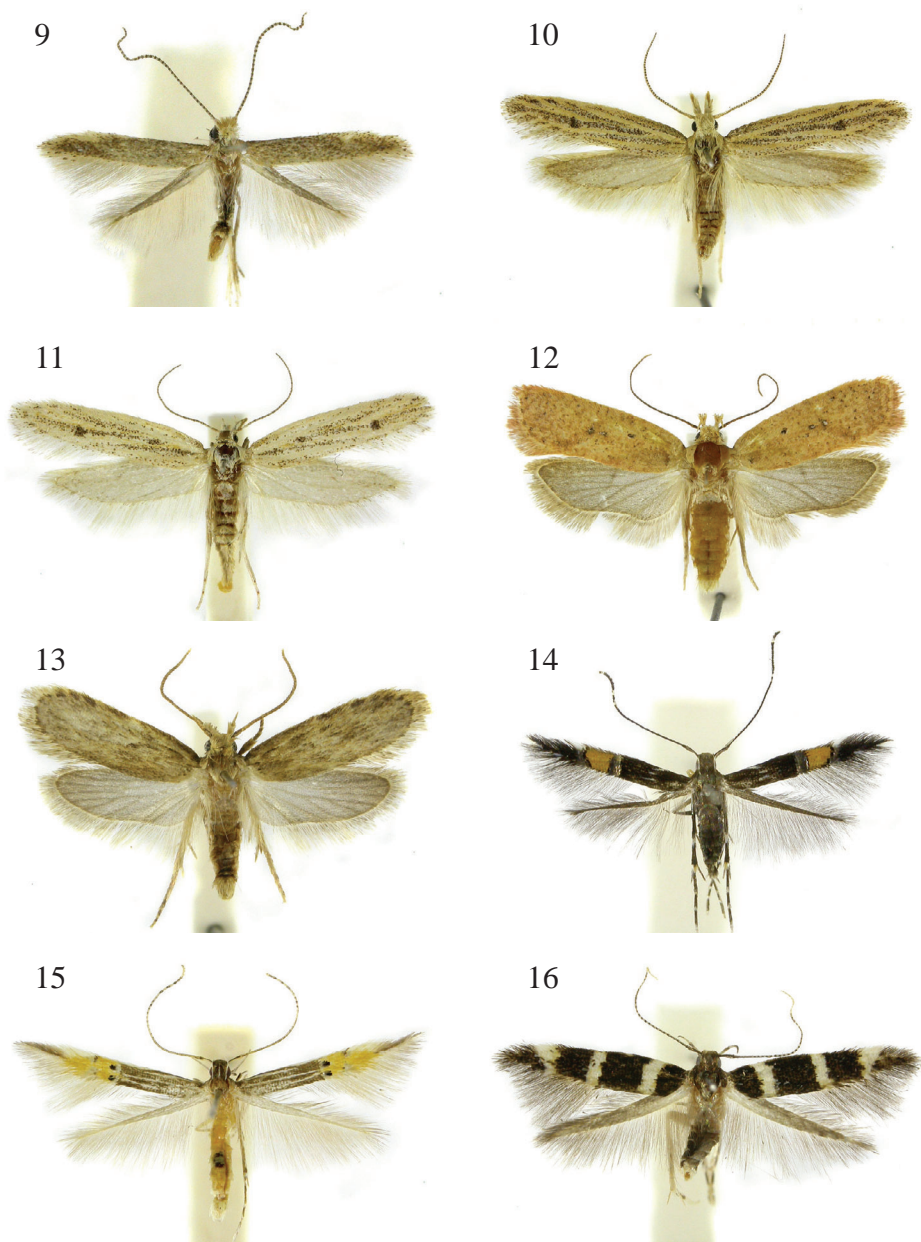
Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂ (det. J. Liška); Krk island, Baška, 30.iv.2002, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 4 ♂; Marušići, 3.–17.viii.2008, 3 ♂.

A widespread species, in the Balkans known only from Croatia (Habeler, 2003) (but not incorporated in the current version of Fauna Europaea), Romania and Bulgaria.

***Agonopterix yeatiana* (Fabricius, 1781)**

Krk, Baška, 20.–22.viii.1994, 1 ♂.

Widely distributed in Europe. In Croatia, it is known only from Krk Island (Habeler, 2003).



Figures 9–16. Voucher specimens of some significant records. **9.** *Bedellia ehikella* Szocs, 1967. Marušići. **10–11.** *Charadraula cassandra* Gozmany, 1967. Tisno. **10.** Male. **11.** Female. **12.** *Agonopterix irrorata* (Staudinger, 1870). Televrina. **13.** *Depressaria halophilella* Chretien, 1908. Žuljana. **14.** *Cosmopterix pulchrimella* Chambers, 1875. Marušići. **15.** *Cosmopterix coryphaea* Walsingham, 1908. Žuljana. **16.** *Hodgesiella rebeli* (Krone, 1905). Tisno.

***Agonopterix rotundella* (Douglas, 1846)**

Krk island, Baščanska Draga, 21.–22.viii.1994, 1 ♂; Turanj near Biograd, 22.–27.viii.2004, 1 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂, 13.–20.viii.2007, 1 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Widely distributed in southern and western Europe (locus typicus: United Kingdom), locally recorded also in central Europe. In the Balkans known only from Romania and Greece. First record for Croatia.

***Agonopterix irrorata* (Staudinger, 1870)**

Lošinj island, Nerezine env., Televrina, 16.–23-ix.2006, 4 ♂ (J. Moravec leg.).

Very local in Europe – known from France, Switzerland, Ukraine, Crete, Greece (locus typicus) and Croatia (Figure 12).

***Depressaria depressana* (Fabricius, 1775)**

Turanj near Biograd, 22.–27.viii.2004, 4 ♂, 1 ♀; Marušići, 3.–17.viii.2008, 2 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 2 ♂.

Known from most of European countries, from Croatia mentioned by Habeler (2003).

***Depressaria halophilella* Chretien, 1908**

Pelješac penin., Žuljana, 1.–13.vii.2005, 4 ♂.

Very local species, known only from France (locus typicus) and Sicily. First record for Croatia and Balkan peninsula (Figure 13).

Pterolonchidae

***Pterolonche albescens* Zeller, 1847**

Biograd, 5.–12.vii.2003, 4 ♂, 1 ♀; Turanj near Biograd, 22.–27.viii.2004, 1 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂, 13.–20.viii.2007, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂.

Widely distributed in southern Europe. First record for Croatia.

Scythrididae

***Scythris tributella* (Zeller, 1847)**

Krk island, Punat, 9.–15.v.2000, 1 ♂; Krk island, Njivice, 19.viii.1994, 1 ♂; Biograd, 5.–12.vii.2003, 1 ♂; Turanj near Biograd, 22.–27.viii.2004, 5 ♂; Pakoštane near Biograd, 15.–17.vii.2003, 3 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 5 ♂, 13.–20.viii.2007, 18 ♂; Marušići, 3.–17.viii.2008, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 37 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂. All det. J. Liška.

A widespread species in southern Europe, but only a single record from Croatia (Krk island) was published (Habeler, 2003).

***Scythris tenuivittella* (Stainton, 1867)**

Biograd, 5.–12.vii.2003, 27 ♂; Turanj near Biograd, 22.–27.viii.2004, 1 ♂;
Pirovac env., Tisno, 15.–17.vii.2003, 2 ♂, 23.viii.2004, 1 ♂, 13.–20.viii.2007, 3 ♂; Marušići, 3.–17.viii.2008, 2 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 10 ♂. All det. J. Liška.

A southern European species, but in the Balkans known only from Greece. First record for Croatia.

***Scythris limbella* (Fabricius, 1775)**

Turanj near Biograd, 22.–27.viii.2004, 3 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂, 13.–20.viii.2007, 6 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 4 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 3 ♂.

Distributed across the whole of Europe, in Croatia known only from Krk Island (Habeler, 2003).

Cosmopterigidae

***Cosmopterix pulchrimella* Chambers, 1875**

Marušići, 3.–17.viii.2008, 1 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

A rare species occurring mainly in southern Europe (Figure 14).

***Cosmopterix coryphaea* Walsingham, 1908**

Pelješac penin., Žuljana, 1.–13.vii.2005, 23 ♂.

Its occurrence is limited to southern Europe, in the Balkans known from Croatia and Greece. Figure 15.

***Hodgesiella rebeli* (Krone, 1905)**

Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 2 ♂.

Rarely distributed in southeastern Europe, recorded also in Italy. In Croatia, it is known from Krk Island (Habeler, 2003) (Figure 16).

Gelechiidae

***Pyncostola bohemiella* (Nickerl, 1864)**

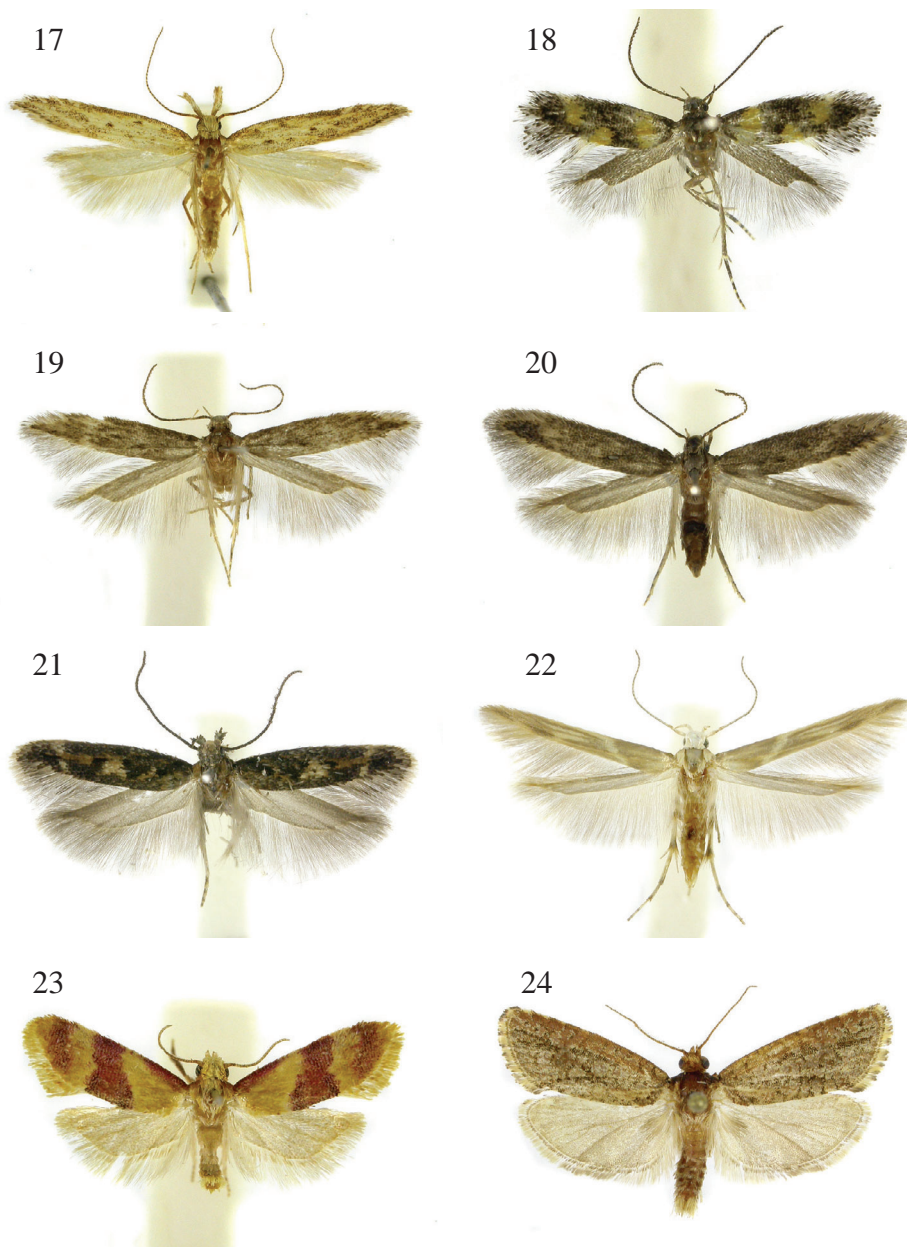
Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Sparsely distributed mainly in southern Europe. In Croatia, it is known from Krk Island (Habeler, 2003) (Figure 17).

***Metzneria aprilella* (Herrich-Schäffer, 1854)**

Pirovac env., Tisno, 13.–20.viii.2007, 1 ♀.

Known from most European countries. First record for Croatia.



Figures 17–24. Voucher specimens of some significant records. 17. *Pyncostola bohemiella* (Nickerl, 1864). Žuljana. 18. *Chrysoesthia sexguttella* (Thunberg, 1794). Tisno. 19–20. *Ivanauskiella psamathias* (Meyrick, 1891), Tisno. 19. Male, specimen 1. 20. Male, specimen 2. 21. *Caryocolum marmorea* (Haworth, 1828). Tisno. 22. *Palumbina guerinii* (Stainton, 1858). Marušići. 23. *Diceratura rhodograpta* Djakonov, 1929. Tisno. 24. *Lozotaeniodes cupressana* (Duponchel, 1836). Punat.

***Chrysoesthia sexguttella* (Thunberg, 1794)**

Pirovac env., Tisno, 13.–20.viii.2007, 1 ♀.

Widely distributed species in Europe, but no faunistic data were available from Croatia. First country record.

***Ivanauskiella psamathias* (Meyrick, 1891)**

Pirovac env., Tisno, 13.–20.viii.2007, 2 ♂ (det. A. Bidzilya).

In Europe known from southern Ukraine, Russia and Bulgaria (Junnilainen et al. 2010), outside Europe recorded in Kazakhstan, Turkmenistan, Uzbekistan and Mongolia (A. Bidzilya, pers. comm.) and Algeria (locus typicus). First record for Croatia (Figures 19–20, 25).

***Eulamprotes helotella* (Staudinger, 1859)**

Pirovac env., Tisno, 28.iv.2002, 1 ♂, 1 ♀.

A common species in southern Europe, but first recorded in Croatia.

***Neotelphusa sequax* (Haworth, 1828)**

Marušići, 3.–17.viii.2008, 1 ♂.

Widely distributed in Europe. First record for Croatia.

***Teleiopsis rosalbella* (Fologne, 1862)**

Krk island, Baška, 20.–22.viii.1994, 1 ♂.

Locally distributed in southern and central Europe. It was reported also from Croatia (Krk Island) by Habeler (2003), but was not incorporated into current version of Fauna Europaea.

***Xenolechia aethiops* (Humphreys & Westwood, 1845)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♀; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂; Marušići, 3.–17.viii.2008, 1 ♂, 2 ♀.

Distributed mainly in western and southern Europe, in the Balkans recorded only in Macedonia and Greece. First record for Croatia.

***Ephysteris promptella* (Staudinger, 1859)**

Pelješac penin., Žuljana, 1.–13.vii.2005, 29 ♂; Pirovac env., Tisno, 13.–23.viii.2004, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 2 ♂, 1 ♀.

In Europe widely distributed with the exception of northern countries. First record for Croatia.

***Ephysteris diminutella* (Zeller, 1847)**

Pirovac env., Tisno, 13.–23.viii.2004, 25 ♂.

Distributed in southern Europe, recorded also in Russia. First record for Croatia.



Figure 25. Male genitalia of *Ivanauskiella psamathias* (Meyrick 1891), Tisno.

***Caryocolum marmorea* (Haworth, 1828)**

Pirovac env., Tisno, 28.iv.2002, 1 ♂.

Known from many European countries. First record for Croatia (Figure 21).

***Palumbina guerinii* (Stainton, 1858)**

Krk island, Punat, 9.–15.v.2000, 5 ♂; Krk island, Baška, 27.x.2002, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 12 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 2 ♂; Marušići, 3.–17.viii.2008, 1 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 2 ♂.

Species with Mediterranean distribution. In Croatia known only from Krk Island (Habeler, 2003) (Figure 22).

***Stomopteryx remissella* (Zeller, 1847)**

Biograd, 5.–12.vii.2003, 2 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 4 ♂, 1 ♀.

Widely distributed in Europe. In Croatia known only from Krk Island (Habeler, 2003).

***Stomopteryx hungaricella* Gozmany, 1957**

Biograd, 5.–12.vii.2003, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 17 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 2 ♂.

Sparsely distributed in southern and central Europe. First record for Croatia.

***Syncopacma taeniolella* (Zeller, 1839)**

Krk island, Njivice, 19.viii.1994, 1 ♂ (det. G. Elsner); Biograd, 5.–12.vii.2003, 3 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂.

Known from most of European countries. First record for Croatia.

***Syncopacma suecicella* (Wolf, 1958)**

Pakoštane near Biograd, 15.–17.vii.2003, 19 ♂; Pirovac env., Tisno, 23.viii.2004, 2 ♂, 13.–20.viii.2007, 3 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Known from western, northern and central Europe, in the Balkans recorded in Greece. First record for Croatia.

***Nothris verbascella* (Denis & Schiffermüller, 1775)**

Pelješac penin., Žuljana, 1.–13.vii.2005, 3 ♂.

Widely distributed in Europe. In Croatia known only from Krk Island (Habeler, 2003).

***Dichomeris acuminatus* (Staudinger, 1876)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♀; Pakoštane near Biograd, 15.–17.vii.2003, 1 ♀; Pirovac env., Tisno, 13.–20.viii.2007, 1 ♀. Known from Mediterranean countries, in the Balkans recorded only in Albania and Greece. First record for Croatia.

***Dichomeris marginella* (Fabricius, 1781)**

Pirovac env., Tisno, 13.–20.viii.2007, 1 ♂.

Distributed across the whole Europe, but in Croatia known only from Krk Island (Habeler, 2003).

***Brachmia blandella* (Fabricius, 1798).**

Turanj near Biograd, 22.–27.viii.2004, 1 ♂.

A widespread species in Europe, but first record for Croatia.

***Helcystogramma triannulella* (Herrich-Schäffer, 1854)**

Krk island, Punat, 12.–18.ix.1999, 1 ♂; Biograd, 5.–12.vii.2003, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 1 ♂.

A migratory species. First country records were given by Habeler (2003) from Krk Island.

Pterophoridae

***Agdistis heydeni* (Zeller, 1852)**

Biograd, 5.–12.vii.2003, 1 ♂ (determined sensu Arenberger 1995).

Distributed in southern countries of Europe. First record for Croatia.

***Oidaematophorus constanti* Ragonot, 1875**

Krk island, Bašćanska Draga, 21.–22.viii.1994, 1 ♂.

Mainly south European species, but in the Balkans known only from Macedonia and Romania. First record for Croatia.

Choreutidae

***Choreutis nemorana* (Hübner, 1799)**

Pirovac env., Tisno, 28.iv.2002, 1 ♂, 13.–20.viii.2007, 1 ♂; Marušići, 3.–17.viii.2008, 1 ♂.

Rarely distributed in southern and central Europe. The single Croatian record originates from Krk Island (Habeler, 1998).

Tortricidae

***Gynnidomorpha luridana* (Gregson, 1870)**

Krk island, Baška, 20.–22.viii.1994, 1 ♂ (det. J. Jaroš);

Recorded only in a few countries across the whole Europe, in the Balkan peninsula only in Croatia (Habeler, 1998) and Romania.

***Aethes williana* (Brahm, 1791)**

Krk island, Baška, 30.iv.2002, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 4 ♂; Marušići, 3.–17.viii.2008, 4 ♂; Pelješac penin., Ston – Sreser, 10.–15.viii.1996, 1 ♂ (V. Hlaváč leg.).

A widely distributed species. In Croatia reported from Krk Island by Habeler (2003).

***Aethes francillana* (Fabricius, 1794)**

Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Distributed in the whole Europe, but only several records from Croatia are available (Habeler, 2003).

***Diceratura roseofasciana* (Mann, 1855)**

Pirovac env., Tisno, 13.–20.viii.2007, 43 ♂, 3 ♀.

Distributed in southern Europe, in the Balkans rarely, in Croatia, Macedonia and Romania.

***Diceratura rhodograpta* Djakonov, 1929**

Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂.

Very rare species, described from Crimea (Ukraine) and occurring mainly in southern Europe. In the Balkans found only in Macedonia and Greece. First record for Croatia (Figure 23).

***Cochylis salebrana* (Mann, 1862)**

Krk island, Punat, 9.–15.v.2000, 3 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂, 13.–20.viii.2007, 11 ♂; Turanj near Biograd, 22.–27.viii.2004, 4 ♂.

In Europe known from most southern countries. Records from Krk Island remain the only ones for Croatia (Habeler, 2003).

***Cochylis posterana* Zeller, 1847**

Biograd, 5.–12.vii.2003, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 8 ♂;

Widely distributed in Europe. First record for Croatia.

***Propiomorpha rhodophana* (Herrich-Schäffer, 1851)**

Turanj near Biograd, 22.–27.viii.2004, 9 ♂; Pakoštane near Biograd, 15.–17.vii.2003, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 17 ♂; Marušići, 3.–17.viii.2008, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 3 ♂; Pelješac penin., Ston – Sreser, 10.–15.viii.1996, 1 ♂ (V. Hlaváč leg.).

Known almost from the whole of southern Europe, but not listed from Croatia in the current version of Fauna Europaea. In Croatia, it belongs to a very abundant species, see also (Habeler, 2003).

***Xerocnephasia rigana* (Sodoffsky, 1829)**

Pirovac env., Tisno, 13.–20.viii.2007, 3 ♂.

Locally distributed in all parts of Europe, in the Balkans recorded in Croatia (Habeler 2003), Romania, Macedonia and Greece.

***Epagoge grotiana* (Fabricius, 1781)**

Senj distr., Sveti Juraj, 29.iv.2002, 2 ♂.

A common species in the whole of Europe, but not listed from Croatia in the current version of Fauna Europaea. However, the taxon *Argyrotoza artificiana* Herrich-Schäf-

fer, 1851, later synonymized with *E. grotiana*, was described from Croatia. Recently it was reported also by Habeler (2003) from Krk Island (as *E. artificiana*).

***Cacoecimorpha pronubana* (Hübner, 1799)**

Pirovac env., Tisno, 13.–20.viii.2007, 4 ♂; Marušići, 3.–17.viii.2008, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 4 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 3 ♂.

Distributed mainly in southern and western Europe. The first records from Croatia were published by Habeler (2003).

***Lozotaeniodes cupressana* (Duponchel, 1836)**

Krk island, Punat, 9.–15.ix.2000, 2 ♂.

In Europe, according to the current version of Fauna Europaea, known only from southwestern countries. Razowski (2002) mentioned its occurrence also from Ukraine and Russia, but this species is not listed in the recent checklist of Russia published by Sinev (2008). First Croatian records were published by Habeler (1998) and many other records were later added from Krk (Habeler, 2003). Its occurrence on the Krk Island is still the only one known within Balkans (Figure 24).

***Endothenia oblongana* (Haworth, 1811)**

Krk island, Punat, 9.–15.ix.2000, 1 ♂, 1 ♀; Pirovac env., Tisno, 23.viii.2004, 5 ♂, 2 ♀; Pakoštane near Biograd, 15.–17.vii.2003, 1 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 5 ♂, 1 ♀; Turanj near Biograd, 22.–27.viii.2004, 3 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Widely distributed in the whole of Europe. In Croatia (on Krk Island), it was recorded by Habeler (2003) and Trematerra & Baldizzone (2004).

***Endothenia marginana* (Haworth, 1811)**

Krk island, Bašćanska Draga, 21.–22.viii.1994, 1 ♂.

Widely distributed in the whole of Europe, in the Balkan peninsula hitherto known from Croatia (Habeler, 2003), Romania, Albania and Macedonia.

***Thiodia trochilana* (Frolich, 1828)**

Pirovac env., Tisno, 15.–17.vii.2003, 1 ♀, 23.viii.2004, 1 ♀.

In Europe distributed in southern and central parts. In Croatia hitherto known only from Krk Island (Habeler, 2003).

***Epinotia festivana* (Hübner, 1799)**

Pakoštane near Biograd, 15.–17.vii.2003, 1 ♀; Pelješac penin., Žuljana, 1.–13.vii.2005, 2 ♂.

Locally distributed in southern, central and eastern Europe. A common species in Croatia, but hitherto its occurrence was published only from Krk Island (Habeler, 2003).

***Eucosma albidulana* (Herrich-Schäffer, 1851)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♂.

Widely distributed in Europe, absent from the north. From Croatia reported only by Habeler (2003).

***Eucosma conterminana* (Guenee, 1845)**

Pirovac env., Tisno, 15.–17.vii.2003, 1 ♂.

A common species, but the data published from Croatia concern only two specimens (Habeler, 2003).

***Epiblema sarmatana* (Christoph, 1872)**

Pirovac env., Tisno, 27.–28.iv.2002, 5 ♂.

Locally known from western (excl. Iberian peninsula), central and eastern Europe. In the Balkans recorded only in Croatia (Habeler, 1998, 2003), Romania and Bulgaria (Figure 26).

***Pseudococcyx tessulatana* (Staudinger, 1871)**

Krk island, Punat, 12.–18.ix.1999, 2 ♀; Marušići, 3.–17.viii.2008, 3 ♀; Pirovac env., Tisno, 15.–17.vii.2003, 1 ♀; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Its occurrence is limited mainly to southern European countries, but in the Balkans recorded only in Croatia (Habeler, 2003), Albania, Bulgaria and Greece.

***Cydia duplicana* (Zetterstedt, 1839)**

Krk island, Punat, 9.–15.v.2000, 1 ♂; Marušići, 3.–17.viii.2008, 1 ♂; Pelješac penin., Žuljana, 1.–13.vii.2005, 2 ♂.

Distributed in many European countries, but so far only several records are available from Croatia (Krk Island) (Habeler, 2003).

***Cydia coniferana* (Saxesen, 1840)**

Biograd, 5.–12.vii.2003, 1 ♂.

Widely distributed in Europe, in the Balkans found only in Romania. Recent records from Croatia (not listed in the Fauna Europaea yet), namely from Krk Island, were presented by Trematerra & Baldizzone (2004).

***Grapholita funebrana* Treitschke, 1835**

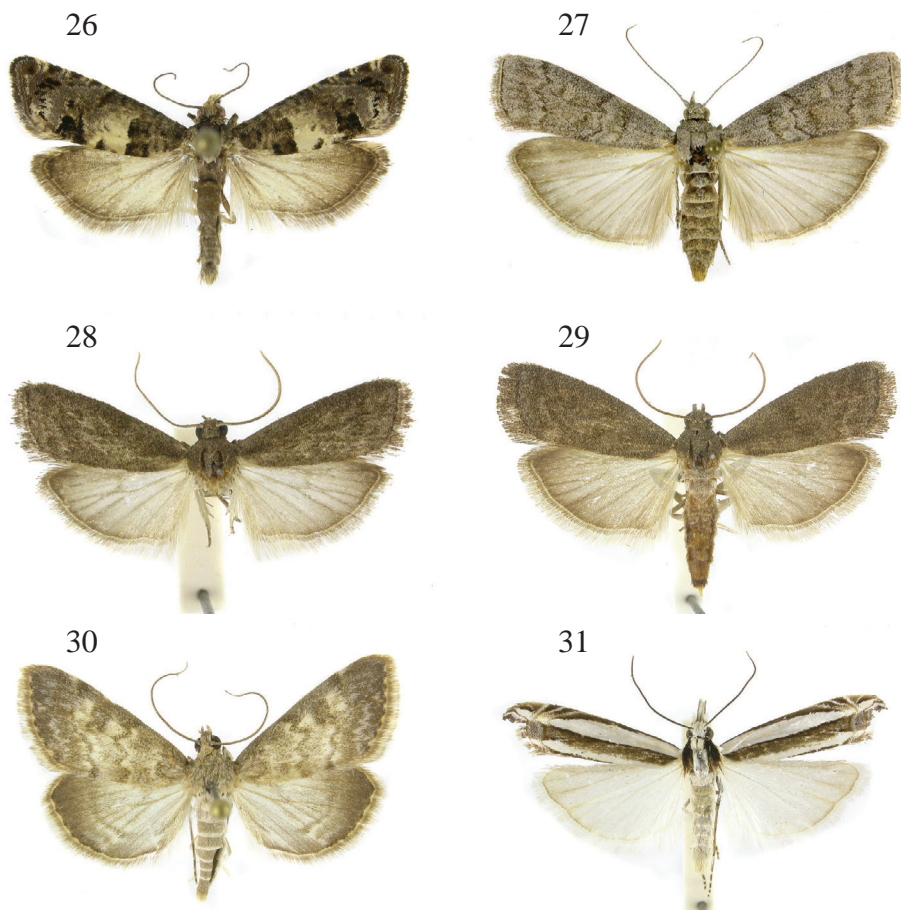
Pirovac env., Tisno, 13.–20.viii.2007, 1 ♂.

A widely distributed species in the whole Europe, but from Croatia recorded for the first time.

***Grapholita janthinana* (Duponchel, 1843)**

Marušići, 3.–17.viii.2008, 1 ♂.

A common species, but in the Balkans recorded only in Romania and Greece. First record for Croatia.



Figures 26–31. Voucher specimens of some significant records. 26. *Epiblema sarmatana* (Christoph, 1872). Tijasno. 27. *Dioryctria pineae* (Staudinger, 1859). Punat. 28–29. *Assara conicolella* (Constant, 1884). Žuljana. 28. Male. 29. Female. 30. *Evergestis caesialis* (Herrich-Schäffer, 1849). Tisno. 31. *Angustalius malacellus* (Duponchel, 1836). Turanj.

***Pammene juniperana* (Milliere, 1858)**

Pakoštane near Biograd, 15.–17.vii.2003, 1 ♂; Pirovac env., Tisno, 15.–17.vii.2003, 3 ♂, 13.–20.viii.2007, 6 ♂; Marušići, 3.–17.viii.2008, 14 ♂, 3 ♀; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Locally distributed mainly in southwestern Europe, from the Balkans only data from Romania are available. First record for Croatia.

Pyralidae

***Loryma egregialis* (Herrich-Schäffer, 1838)**

Turanj near Biograd, 22.–27.viii.2004, 2 ♂; Pakoštane near Biograd, 15.–17.vii.2003, 1 ♂; Pirovac env., Tisno, 13.–20.viii.2007, 5 ♂; Pag, Novalja – Potočnica, 26.–30.viii.2001, 2 ♂, 1 ♀; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂.

Known from all south European countries, in the Balkans recorded in Macedonia, Bulgaria and Greece. First record for Croatia.

***Epidauria transversariella* (Zeller, 1848)**

Krk island, Podgora, 25.vii.2002, 1 ♂, A. Kaćirek leg.; Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂, 2 ♀.

Locally distributed in the Balkan peninsula, hitherto known only from Croatia (locus typicus) and Greece.

***Dioryctria pineae* (Staudinger, 1859)**

Krk island, Punat, 12.–18.ix.1999, 1 ♀.

A rare species, known from several south European countries (locus typicus: Spain). In the Balkans, it is known from Croatia and Greece (Figure 27).

***Assara conicolella* (Constant, 1884)**

Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♂, 4 ♀.

Known only from the Iberian peninsula, France (locus typicus) and Corsica. First record for Croatia and the Balkan peninsula (Figures 28–29).

***Evergestis caesialis* (Herrich-Schäffer, 1849)**

Pirovac env., Tisno, 13.–20.viii.2007, 7 ♂, 1 ♀.

In Europe locally distributed in the Balkan peninsula (locus typicus: Dalmatia), recorded also in Italy (Figure 30).

***Corcyra cephalonica* (Stainton, 1866)**

Pelješac penin., Žuljana, 1.–13.vii.2005, 1 ♀ (det. F. Slamka).

Known from many countries across the whole Europe, in the Balkans only from Romania, Bulgaria and Greece. First record for Croatia.

***Metasia corsicalis* (Duponchel, 1833)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♂ (det. F. Slamka).

Distributed in southwestern Europe, but from the Balkan peninsula, only Croatian records are available (Habeler, 2003).

Crambidae

***Angustalius malacellus* (Duponchel, 1836)**

Turanj near Biograd, 22.–27.viii.2004, 1 ♂.

A rare species, distributed in the Mediterranean Region. The only two Croatian records were mentioned by Slamka (2008) (Istria from 1905) and Habeler (2003) (Krk island from 1999) (Figure 31).

Discussion

The report gives the results of an extensive lepidopterological survey of several sites in Croatia. During this survey, several hundred Microlepidoptera species were observed or recorded. The list presented includes mainly species which are still not mentioned in the internet database of Fauna Europaea (Karsholt & van Nieukerken, 2011).

Currently the Fauna Europaea database contains 1235 species of Microlepidoptera (incl. Psychidae and Sesiidae) but numerous data were published in a number of faunistic papers (e.g. Habeler, 1998, 2003, Gaedike & Baldizzone, 2008) and were not reflected there.

An extended revision of literary sources therefore apparently would remarkably increase the number of species. Also, many species still unpublished for the territory of Croatia are probably hidden in private collections, for the country (mainly the coastland and coastal mountains) has been frequently visited by entomologists during the last few decades. This trend is evident in the relatively high number of newly described Microlepidoptera from Croatia – for example *Blastobasis huemeri* Sinev, 1993, *Altenia elsneriella* Huemer & Karsholt, 1999, *Scrobipalpa tokari* Huemer & Karsholt, 2010 or *Neurothaumasia tenuipennella* Gaedike, 2011.

In this paper, 47 species are recorded for the first time in Croatia, two species (*Depressaria halophilella* Chretien, 1908 and *Assara conicolella* (Constant, 1884)) are simultaneously new species for the Balkan peninsula. In the case of some of the species presented, Croatia is the eastern limit of their European range (*Depressaria halophilella*, *Assara conicolella*, *Lozotaeniodes cupressana*) whereas *Ivanauskiella psamatias* or *Charadraula cassandra* have the westernmost occurrence there. Even this small sample confirms Croatia to be an exceptionally interesting area, which needs extraordinary attention from lepidopterologists in the future.

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