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**FAUNISTIC RECORDS FROM THE CZECH REPUBLIC – 540**


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**Lepidoptera: Adelidae, Tineidae, Gracillariidae, Batrachedridae, Coleophoridae, Gelechiidae, Tortricidae, Choreutidae, Alucitidae, Crambidae, Erebiidae, Noctuidae**

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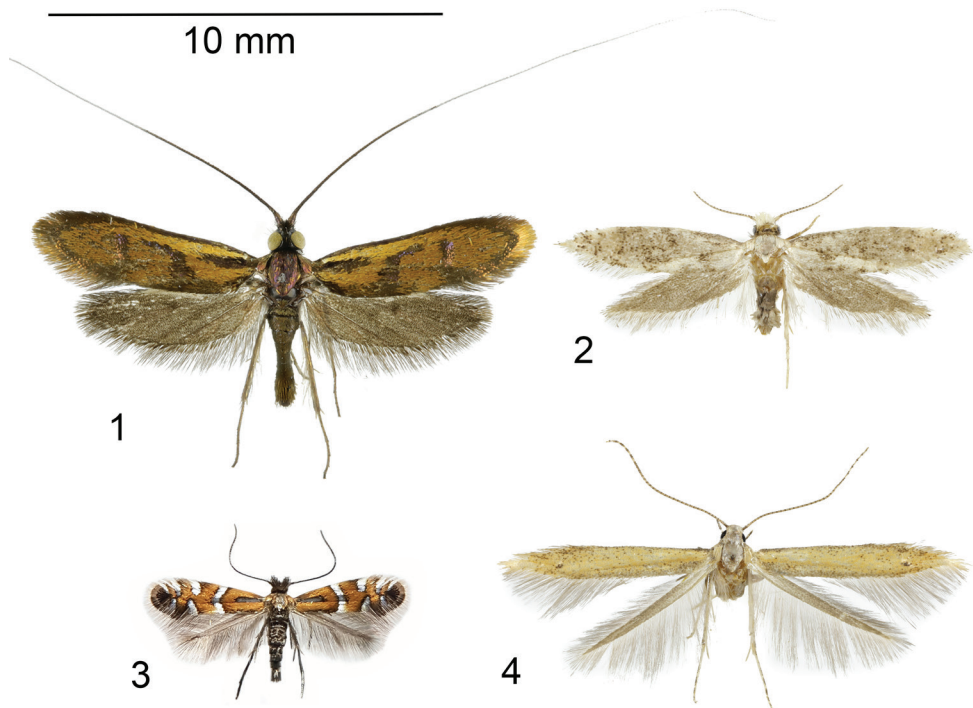
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**Adelidae**

*Nemophora pfeifferella* (Hübner, [1813]). Bohemia centr., Dlouhopolsko (5758), 30.vii.2021, 2 ♂♂, 2 spec. observ. (Fig. 1), 26.vii.2022, 1 spec. observ., all J. Liška leg. et det., coll. National Museum, Praha, Czech Republic (NMPC).

Scattered distributed in western, southeastern, and central Europe (van Nieukerken 2013). In central Europe recorded in all neighbouring countries of Czech Republic (Laštůvka et al. 2018). In Czech Republic it is rare in southern Moravia (Zimmermann 1922, Laštůvka & Laštůvka 2021). Larvae on *Succisella* (= *Succisa*) *inflexa* and *Succisa pratensis* (Bryner 2020), in South Moravia (Travní Dvůr, Pouzdřany) and abundantly in several localities in the Cerová vrchovina Mts in Slovakia, always on *Dipsacus fullonum* (A. Laštůvka & Z. Laštůvka observ.). New species for Bohemia.



Figs 1–4. Voucher specimens of recorded species. 1. *Nemophora pfeifferella* (Hübner, [1813]), Dlouhopolsko. 2. *Infurcitinea finalis* Gozmány, 1959, Dlouhopolsko. 3. *Phyllonorycter trifoliella* (Gerasimov, 1933), Krahulčí. 4. *Batrachedra confusella* Berggren, Aarvik, Huemer, Lee et Mutanen, 2022, Dlouhopolsko. Photographs by J. Šumpich (1–2, 4), A. Laštůvka (3).

Obr. 1–4. Sbirkové doklady zaznamenaných druhů. 1. *Nemophora pfeifferella* (Hübner, [1813]), Dlouhopolsko. 2. *Infurcitinea finalis* Gozmány, 1959, Dlouhopolsko. 3. *Phyllonorycter trifoliella* (Gerasimov, 1933), Krahulčí. 4. *Batrachedra confusella* Berggren, Aarvik, Huemer, Lee et Mutanen, 2022, Dlouhopolsko. Fotografie J. Šumpich (1–2, 4), A. Laštůvka (3).

## Tineidae

***Infurcitinea finalis*** Gozmány, 1959. Bohemia centr., Dlouhopolsko (5758), 30.vii.2021, 1 ♀, 13.vii.2022, 2 ♀♀ (Fig. 2), all J. Liška leg. et det., coll NMPC.

Local species, previously recorded from Austria, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Italy (including Sicily), Russia (Middle and Lower Volga), Slovakia, Spain, and Ukraine (Bidzilya et al. 2013). In Czech Republic so far recorded only from Moravia, but it can be locally very abundant in xerothermic biotopes, mainly light oak forests (Šumpich 2011, 2017, Laštůvka et al. 2018). Bionomy still unknown. New species for Bohemia.

## Gracillariidae

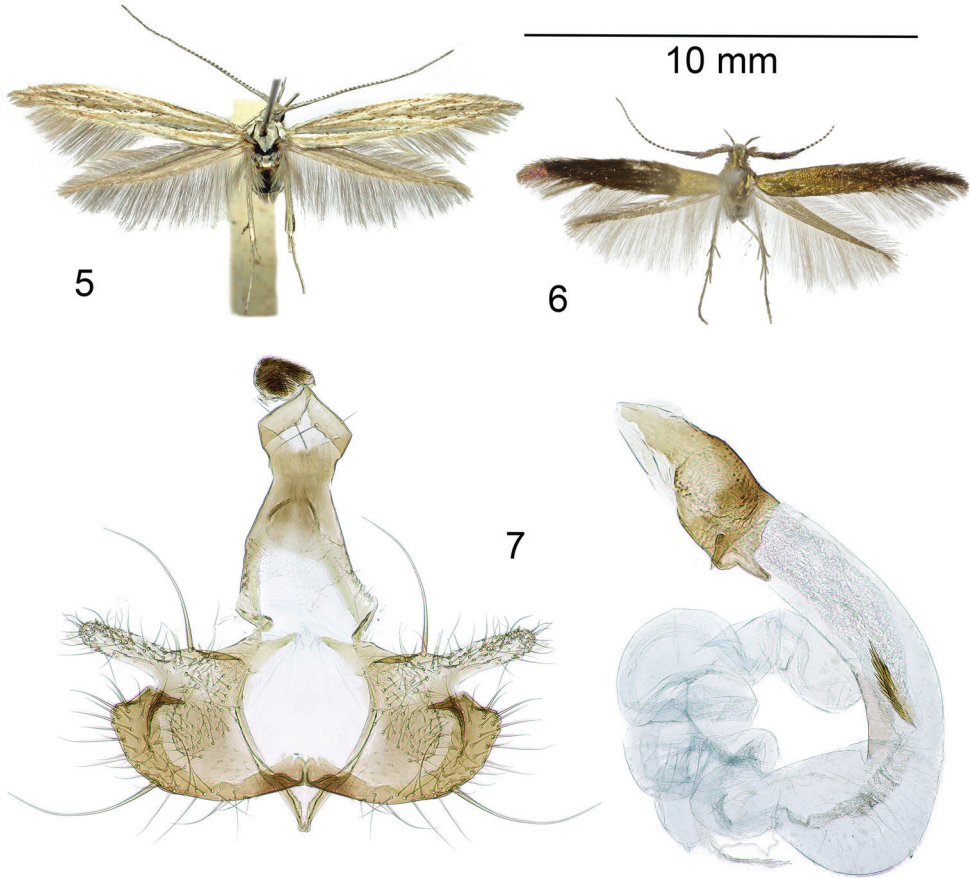
*Phyllonorycter trifoliella* (Gerasimov, 1933). Moravia bor., Nizký Jeseník Mts, Krahulčí (6170), 14.viii.2021, 2 ♂♂, 4.viii.2022, mines with larvae on *Lathyrus pratensis*, emerged viii.2022, 2 ♂♂ (Fig. 3), 4 ♀♀, all A. Laštůvka & Z. Laštůvka leg., A. Laštůvka det. et coll.

Species described and long known only from southern European Russia (Gerasimov 1933). In recent years it has been found in rapid succession in several European countries, in central Europe so far in Austria, Czech Republic, Poland, Slovenia, and Switzerland (Laštůvka & Laštůvka 2009, Schmid 2013, Aarvik 2017, Buchner 2019, Buszko & Krzysztofciak 2020, Nel et al. 2020, Gomboc & Kirichenko 2022). This is clearly a case of very rapid expansion. It is unlikely to have been previously overlooked over such a large area. In Czech Republic it has been found in northern Bohemia (Liška et al. 2018). Larvae develop on *Trifolium* spp. and *Lathyrus* spp. (Gerasimov 1933, and this new record). New species for Moravia.

## Batrachedridae

*Batrachedra confusella* Berggren, Aarvik, Huemer, Lee et Mutanen, 2022. Bohemia centr.: Radotín-Cikánka (6051), 26.vi.1989, 1 ♂, J. Skyva leg., J. Liška det., coll. NMPC; Nová Bystrice-Mnich (6956), 12.vi.2012, 1 ♂; Vonoklasy-Bukovka (6051), 28.vi.2022, 1 ♂; Tetín-Koda (6050), 22.vi.2022, 1 ♂; Dlouhopolsko (5758), 19.vi.2022, 1 ♀ (Fig. 4), all J. Liška leg. et det., coll. NMPC; Vojslavice (6354), 1.vii.1999, 1 ♀; Káraný-Sv. Václav (5854), 24.vi.2015, 1 ♂, both G. Elsner leg., det. et coll. Bohemia mer.: Červené blato near Šalmanovice (7154), 12.vii.1991, 1 ♂; Nažidla near Kaplice (7352), 4.ii.1994, larva on *Larix decidua*, emerged 25.iii.1994, 1 ♂; Rožmberk nad Vltavou (7352), 12.ii.1998, larva on *Larix decidua*, emerged 29.iii.1998, 1 ♂, all. J. Jaroš leg., det. et coll. Bohemia occ.: Dobřív (6248), 18.vii.1980, 1 ♂; Rokycany (6247), 26.vi.1999, 1 ♀, both G. Elsner leg., det. et coll. Moravia mer.: Dyjákovičky env., Ječmenišť (7262), 16.vi.2011, 1 ♀; Jamolice-Černice (6963), 9.vi.2017, 1 ♀; Lanžhot, Soutok-Důbrava (7367), 6.vi.2012, 2 spec. observ.; Soutok-Lánské louky (7267), 17.vi.2022, 1 ♀, all J. Liška leg. et det., coll. NMPC.

A species recently separated from *B. pinicolella* (Zeller, 1839) (Berggren et al. 2022). The current state of knowledge suggests that *B. confusella* is distributed in central and northern Europe and occurs in habitats with *Pinus* spp., which is its main hostplant. *Larix decidua* is mentioned as another possible host plant (Berggren et al. 2022). Some of our specimens emerged from aprox. 15 cm long twigs of *Larix decidua*, which were collected due to the galls of *Cydia millenniana* (Adamczewski, 1967), thus the development on this tree species was documented. Larvae of *B. pinicolella* are associated with *Picea abies* and *Abies alba* and the species has a boreo-montane distribution (Berggren et al. 2022). Occurrence of *B. confusella* in Czech Republic has already been confirmed in the surroundings of Lanžhot in southern Moravia, but the records were presented without faunistic details (Laštůvka et al. 2022). According to our findings (presented here), all known records of *Batrachedra confusella* from Czech Republic are from lower elevations, while conversely, all known records of *Batrachedra pinicolella* are from montane regions (where spruce forests are autochthonous). New species for Bohemia.



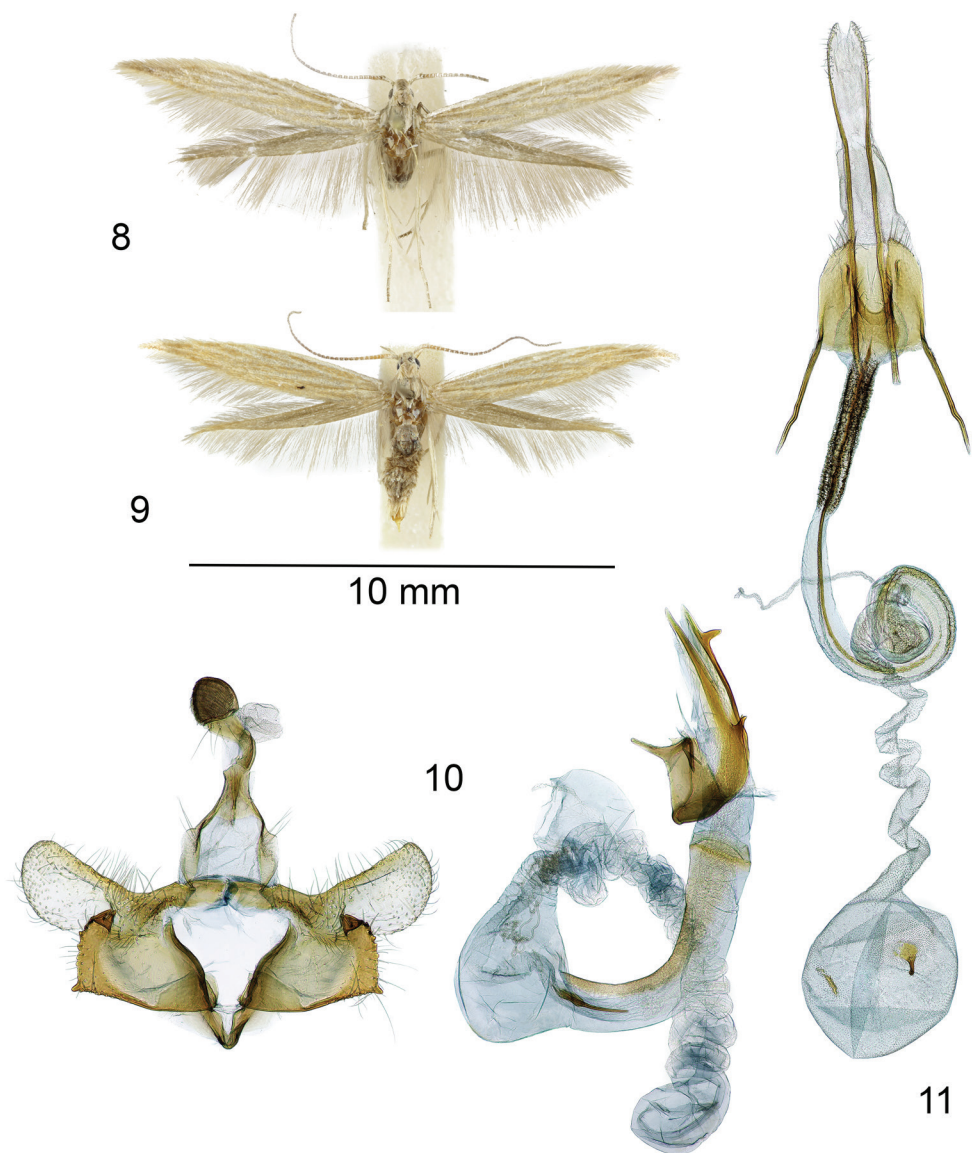
Figs 5–7. Voucher specimens of recorded species. 5. *Coleophora dianthi* Herrich-Schäffer, 1855, Boreček near Hradčany, male. 6–7: *Coleophora hieronella* Zeller, 1849, Bzenec. 6. Male. 7. Male genitalia. Photographs by J. Vávra (5), J. Šumpich (6), Ig. Richter (7).

Obr. 5–7. Sbírkové doklady zaznamenaných druhů. 5. *Coleophora dianthi* Herrich-Schäffer, 1855, Boreček u Hradčan, samec. 6–7: *Coleophora hieronella* Zeller, 1849, Bzenec. 6. Samec. 7. Samčí genitálie. Fotografie J. Vávra (5), J. Šumpich (6), Ig. Richter (7).

## Coleophoridae

*Coleophora dianthi* Herrich-Schäffer, 1855. Bohemia bor., Boreček near Hradčany (5354), 10.vi.2022, 1 ♂ (Fig. 5), 2 ♀♀ (female genitalia examined), 21.vi.2022, 1 ♂, all J. Vávra leg., det. et coll.

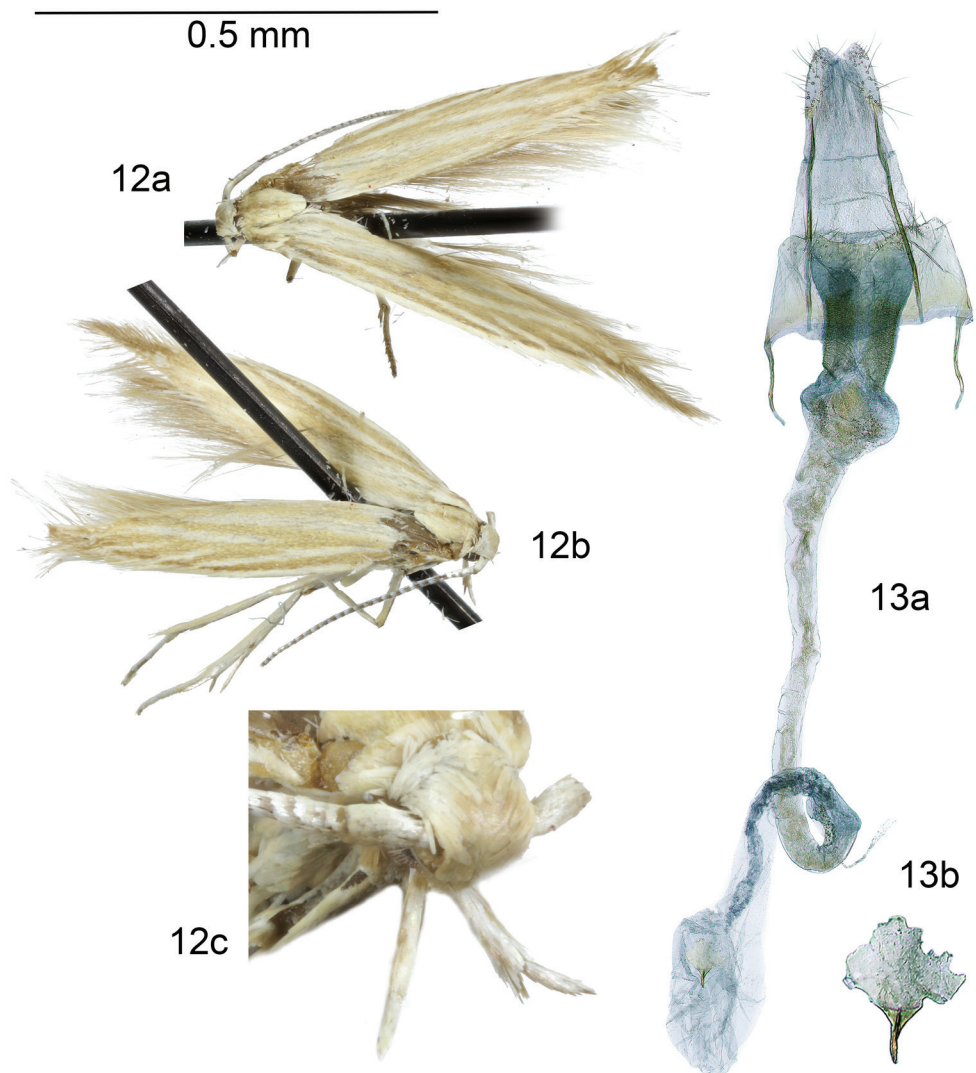
It is distributed in continental Europe, Armenia, Crimea, Russia, Sardinia, Turkey, and central Asia (Baldizzone 2019). There is undocumented historical data from southern Moravia (Mikulov, Svatý kopeček hill) mentioned in Zimmermann & Skala (1947). The first precise



Figs 8–11. *Coleophora proterella* Wikström et Tabell, 2016, Brno-Jehnice. 8. Male. 9. Female. 10. Male genitalia. 11. Female genitalia. Photographs by J. Šumpich (8–9), Ig. Richter (10–11).

Obr. 8–11. *Coleophora proterella* Wikström et Tabell, 2016, Brno-Jehnice. 8. Samec. 9. Samice. 10. Samčí genitálie. 11. Samičí genitálie. Fotografie J. Šumpich (8–9), Ig. Richter (10–11).





Figs 12–13. *Coleophora zukowskii* Toll, 1959, Větrníky. 12. Female (a, b – different views; c head [enlarged]). 13. Female genitalia (a – general view; b – detail of signum [enlarged]). Photographs by J. Šumpich (12), Ig. Richter (13).  
 Obr. 12–13. *Coleophora zukowskii* Toll, 1959, Větrníky. 12. Samice (a, b – různé pohledy; c hlava [zvětšeno]). 13. Samičí genitálie (a – celkový pohled; b – signum, detail [zvětšeno]). Fotografie J. Šumpich (12), Ig. Richter (13).

record from Czech Republic, Havraníky in Podyjí National Park in 1991, was provided by Krámpf & Marek (2005). The species inhabits heather stands, most often within pine forests. The records presented here were from near the pine forests of the Doksy region and all specimens were caught by net before sunset. New species for Bohemia.

*Coleophora hieronella* Zeller, 1849. Moravia mer., Bzenec, military training area (7069), 8.vi.2014, 1 ♂ (gen. prep. 33390, Ig. Richter) (Figs 6–7), J. Marek leg., Ig. Richter det., coll. NMPC.

Distributed in southern, eastern, and partly central Europe, northern Africa and the Caucasus (Baldizzone 2019). In the neighbouring countries of Czech Republic found so far in Austria (Huemer et al. 2009) and Slovakia (Kosorin 2021). Larvae feed on *Trifolium angustifolium* according to Nel & Varenne (1995). New species for the Czech Republic.

*Coleophora proterella* Wikström et Tabell, 2016. Moravia mer., Brno-Jehnice (6765), 11.viii.1978, 2 ♂♂ (genitalia dissected by J. Marek, identified as *C. virgaureae* Stainton, 1857) (Figs 8, 10), 3.x.1978, 1 ♀ (Figs 9, 11), all J. Marek leg., Ig. Richter det., coll. NMPC.

Recently described species from Finland (Wikström & Tabell 2016), until then it was confused with *C. virgaureae*. It was previously recorded in Estonia, Germany, Hungary, Latvia, Norway, Portugal, Spain, and Sweden (Wikström & Tabell 2016), Russia (Arkhangelsk Oblast) (Kozlov et al. 2020), and Slovakia (Pastoralis et al. 2017). The larva feeds on the seeds of *Solidago virgaurea*. Bionomy is described in detail by Wikström & Tabell (2016). New species for the Czech Republic.

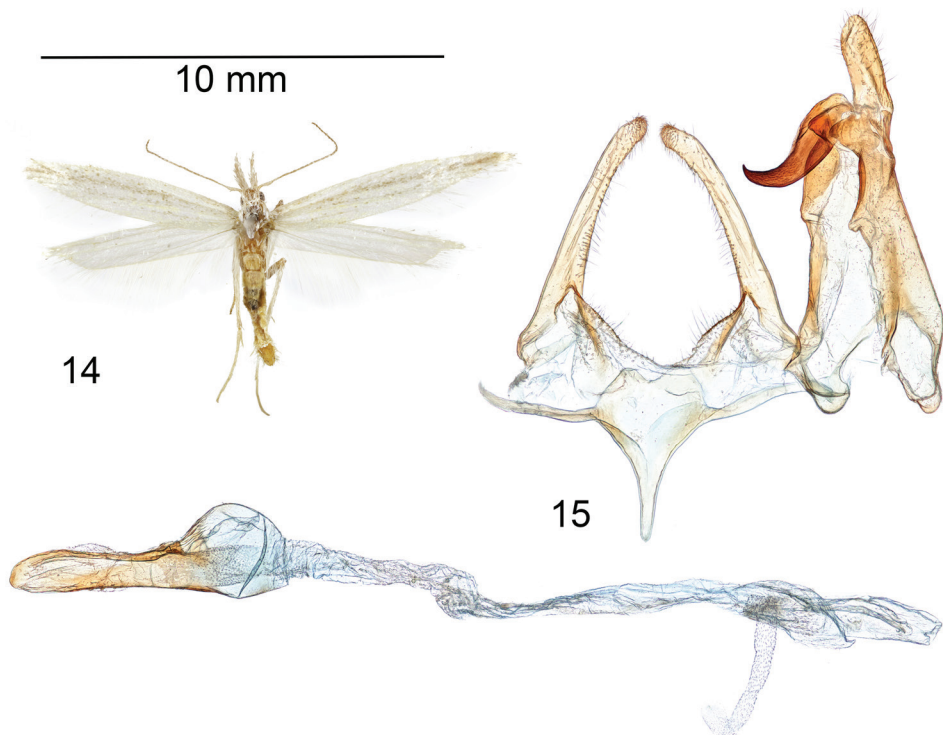
*Coleophora zukowskii* Toll, 1959. Moravia mer., “Větrníky (hills)” [Vyškov env., Bučovická pahorkatina hills, Větrníky National Nature Reserve] (6867), 27.vi.1975, 1 ♀ (gen. prep. 33555, Ig. Richter) (Figs 12–13), F. Gregor leg., Ig. Richter det., coll. NMPC.

One of the rarest European species of the genus, the occurrence of only five specimens has been published so far. It was described by Sergius Toll from the Pieniny mountains in Poland, based on one male (Toll 1959). Later, only one work has focused on this species and provides the first records from Denmark from 1907–1924 and Germany from 1908 as a result of detailed detective work (Karsholt 1996). The female genitalia are described in the same paper. The host plant is unknown. The locality of the presented record has been protected since 1925 because at that time it was already considered as one of the largest and most valuable steppe areas in southern Moravia. It is an extensive complex of habitats with xerothermic steppe vegetation of the Pontic-Pannonian and sub-Mediterranean type. The first record for the Czech Republic.

## Gelechiidae

*Megacraspedus podolicus* (Toll, 1942). Bohemia bor., Louny env., Dobroměřický rybník (pond) (5648), 6.vii.2017, 1 ♂ (gen. prep. 23023, J. Šumpich) (Figs 14–15), M. Žemlička leg., det. et coll., J. Šumpich revid.

Probably a widely distributed species, but only a few records have been published. It was described as a distinct species in the genus *Chilopselaphus* Mann, 1867, but was later treated as a subspecies of *Chilopselaphus balneariellus* Chrétien, 1907 (today also in *Megacraspedus* Zeller, 1839), and for a long time its occurrence was known only from the area of the type locality (Hlody in western Ukraine) (Toll 1942). Later, Kasy (1962, 1965) recorded it from Austria, and recently in the southern Ural Mts (Junnilainen et al. 2010) (all as a subspecies of *C. balneariellus*). In a recent genus revision, it was restored to the species level, and new records from Austria, Crimea, Hungary, Romania, and Russia (Altai Mts) were presented (Hue-



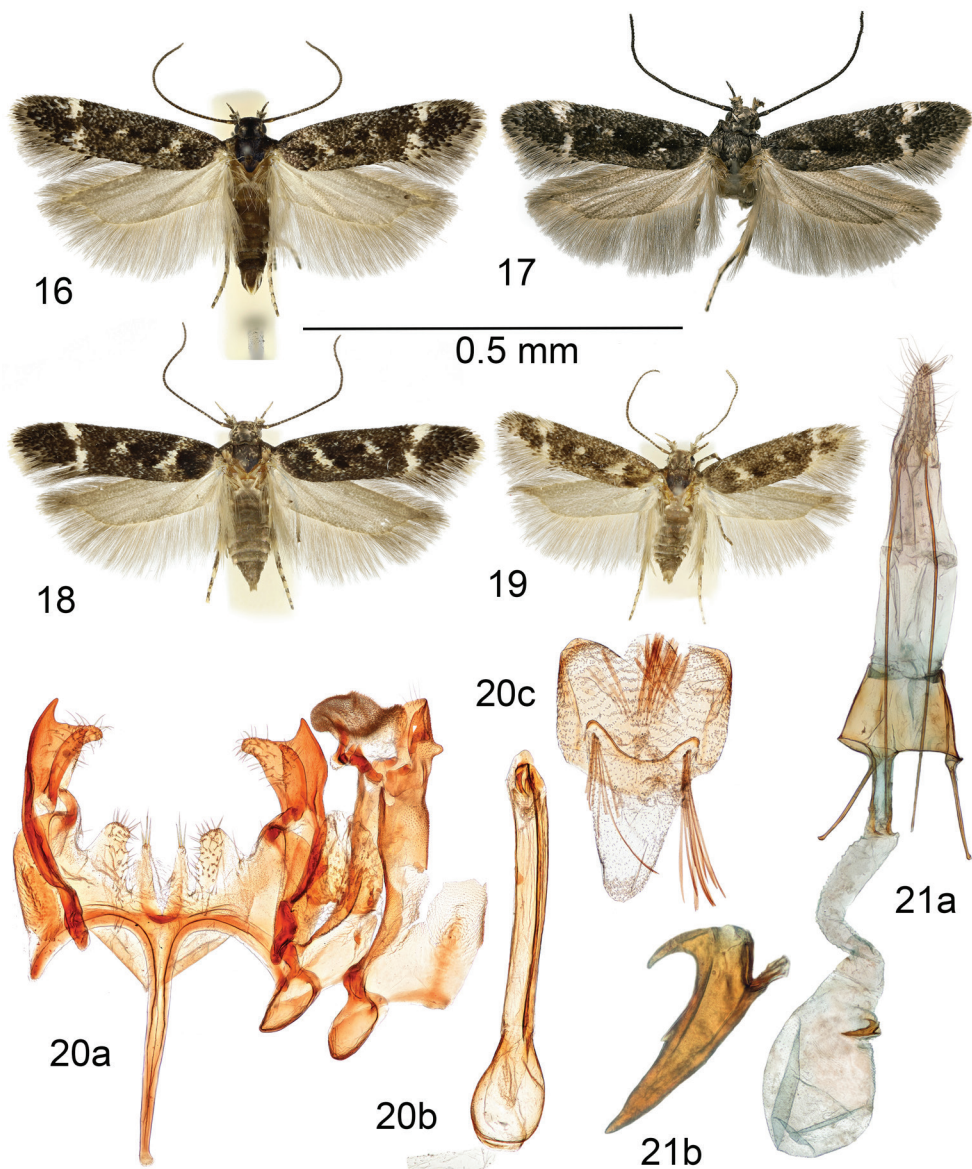
Figs 14–15. *Megacraspedus podolicus* (Toll, 1942), Dobroměřický rybník. 14. Male. 15. Male genitalia. Photographs by J. Šumpich.

Obr. 14–15. *Megacraspedus podolicus* (Toll, 1942), Dobroměřický rybník. 14. Samec. 15. Samčí genitálie. Fotografie J. Šumpich.

mer & Karsholt 2018). Additional records from Hungary and the Russian Altai were published by Buschmann & Pastorális (2019) and Šumpich (2022). In Czech Republic it was recorded first in Pouzdřanská step (steppe) in southern Moravia in 1993 as *C. balneariellus* by Sitek (2008). Recently, the identity of this specimen was revised and the species name corrected to *M. podolicus* (Šumpich et al. 2022a). The record from Dobroměřický rybník pond is undoubtedly one of the most unique examples of the occurrence of a relict Lepidoptera species in Bohemia, and at the same time it represents evidence of the Holocene continuity of zonal continental grass steppes in the isolated area of the “Louny steppe region” in central Europe. *Cephimallota praetoriella* (Christoph, 1872) and *Pyralis perversalis* (Herrich-Schäffer, [1849]) also still survive in this area, away from their continuous area of distribution (e.g. Laštůvka et al. 2018, Šumpich et al 2022b). The host plant is unknown, larvae probably develop on grasses. New species for Bohemia.

***Caryocolum habeleri*** Huemer, 2020 (Figs 16–21). Bohemia bor.: Břvany env., Písečný vrch (hill) (5548), 12.vii.1994, 1 ♂, 20.vii.1994, 5 ♂♂ (1 ex. gen. prep. by J. Liška), 1 ♀, J. Liška leg., J. Šumpich det., coll. NMPC; same locality, 7.vi.2003, 1 ♂, 8.vii.2013, 1 ♂ (DNA





Figs 16–21. *Caryocolum habeleri* Huemer, 2020. 16–19. Voucher specimens. 16. Písečný vrch, male. 17. Oblík, male. 18. Srbsko, female. 19. Písečný vrch, female. 20. Male genitalia (a – general view; b – aedeagus; c – abdominal segment VIII). 21. Female genitalia (a – general view; b – detail of signum). Photographs by J. Šumpich (16, 18–21), Z. Ceé (17).

Obr. 16–21. *Caryocolum habeleri* Huemer, 2020. 16–19. Sbirkové doklady. 16. Písečný vrch, samec. 17. Oblík, samec. 18. Srbsko, samice. 19. Písečný vrch, samice. 20. Samčí genitálie (a – celkový pohled; b – aedeagus; c – abdominální segment VIII). 21. Samičí genitálie (a – celkový pohled; b – signum, detail). Fotografie J. Šumpich (16, 18–21), Z. Ceé (17).

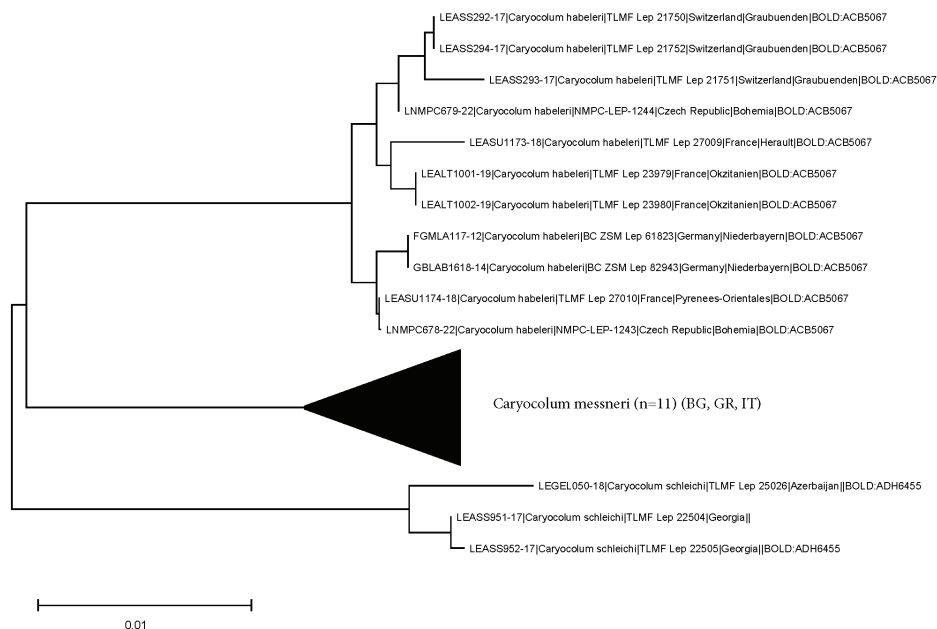


Fig. 22. Neighbor-Joining tree with *Caryocolum habeleri* Huemer, 2020 and the most related species created from available records in BOLD. Source: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).  
 Obr. 22. Fylogenetický strom *Caryocolum habeleri* Huemer, 2020 a nejbližších druhů, vytvořený podle dostupných údajů v systému BOLD. Zdroj: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).

Barcode NMPC-Lep-1244), 18.vii.2013, 3 ♂♂ (DNA Barcode NMPC-Lep-1243), 31.vii.2013, 2 ♂♂, 12.viii.2013, 2 ♂♂, J. Šumpich leg. et det., coll. NMPC; same locality, 17.viii.2012, 1 ♂, M. Žemlička leg., det. et coll.; České středohoří Protected Landscape Area, Raná hill, 8.viii.1996, 1 spec., J. Liška leg., det. et coll.; České středohoří Protected Landscape Area, Oblík hill, 7.vi.2007, 1 ♂, 16.vii.2007, 2 ♂♂, 1.viii.2008, 2 ♂♂, 3.viii.2011, 7 spec., M. Žemlička leg., det. et coll. Bohemia centr.: Vrané nad Vltavou (6052), 3.viii.1992, 1 ♀ (gen. prep. by J. Liška), J. Liška leg., J. Šumpich det., coll. NMPC; Český kras Protected Landscape Area, Beroun env., Tetín, Koda National Nature Reserve, Kodská stěna wall (6050), 17.vii.2022, 1 ♂, J. Liška leg., J. Šumpich det., coll. NMPC; Český kras Protected Landscape Area, Srbsko (6050), 21.viii.1992, 2 ♂♂ (both gen. prep. by J. Liška), 1.viii.1998, 1 ♀, J. Liška leg., J. Šumpich det., coll. NMPC; Český kras Protected Landscape Area, Hostim env., Třesina (6050), 6.vii.2001, 1 ♂, 24.vi.2001, 1 ♂, J. Liška leg., J. Šumpich det., coll. NMPC; Český kras Protected Landscape Area, Praha-Radotín, Cikánka Natural Monument (6052), 25.vii.2004, 1 ♂, 30.vii.2009, 1 ♂, 10.vii.2010, 2 ♂♂, 22.vii.2010, 1 ♂, all J. Liška leg., J. Šumpich det., coll. NMPC; Český kras Protected Landscape Area, Srbsko-Za Borkem (6050), 15.viii.2020, 1 ♂, 1 ♀, 3 spec. observ.; Radotín env., Cikánka (6051), 16.viii.2020, 1 ♂, Tetín, Koda National Nature Reserve (6050), 17.viii.2022, 1 ♂, 1 ♀, ca. 5 spec. observ., all J. Liška leg., det. et coll.

Recently described species from France, the type series also includes material from Germany (south-eastern Bavaria) and Switzerland (Huemer 2020). Until then, the species was

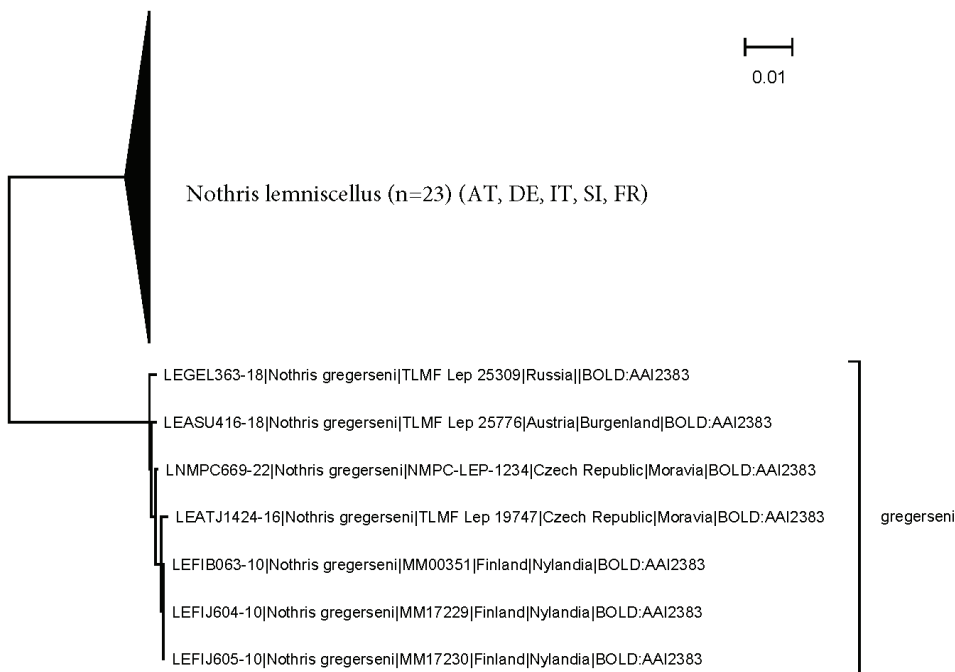
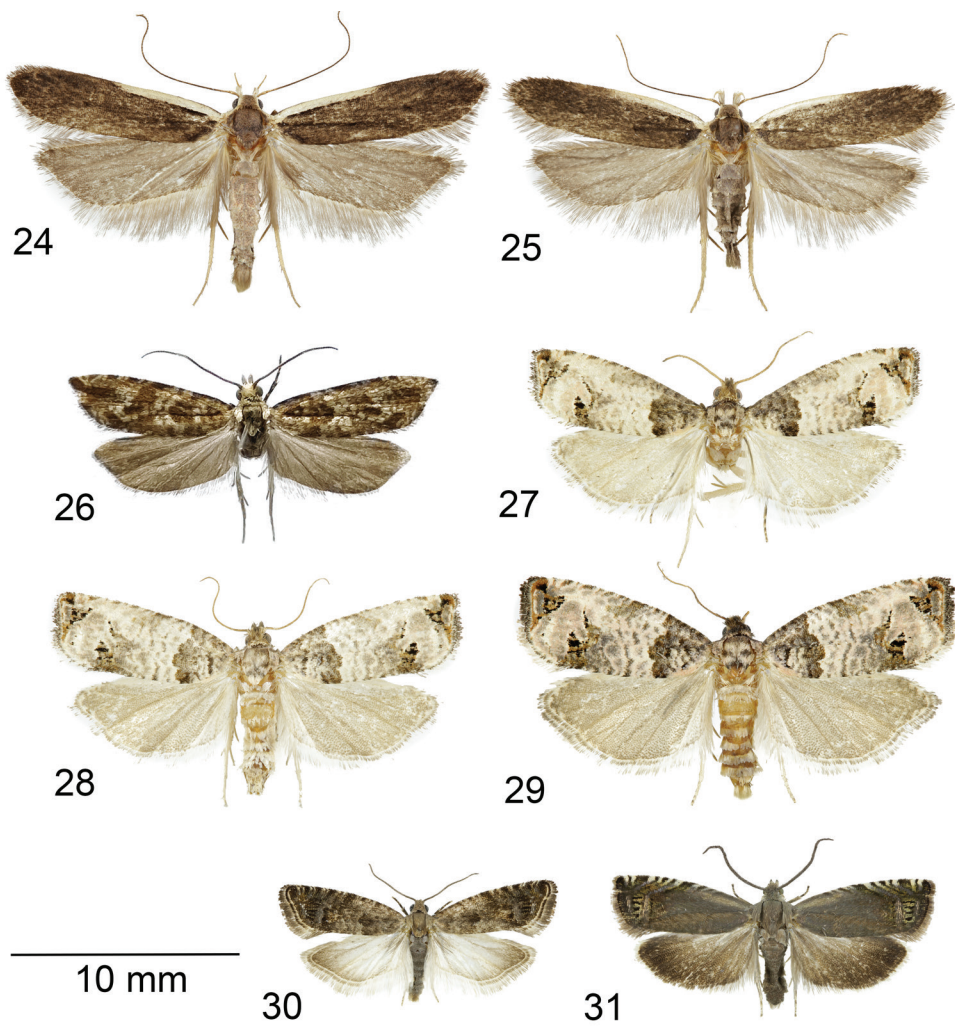


Fig. 23. Neighbor-Joining tree of *Nothris gregerseni* Karsholt et Šumpich, 2015 and *N. lemniscellus* (Zeller, 1839) as the most related species created from available records in BOLD. Source: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).

Obr. 23. Fylogenetický strom *Nothris gregerseni* Karsholt et Šumpich, 2015 a *N. lemniscellus* (Zeller, 1839) jako nejpříbuznějšího druhu, vytvořený podle dostupných údajů v systému BOLD. Zdroj: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).

identified as *C. schleichi* (Christoph, 1872). Immediately after the publication of this revisional work, the Czech material of *C. schleichi* was re-examined, but the genitalia of the Bohemian specimens could not be unambiguously assigned to any species from the *C. schleichi* group, and therefore in the most recent publications the species was presented as *C. schleichi* agg. and *C. cf. habeleri* (Šumpich et al. 2021, 2022b). Only based on barcoding it became clear that the Bohemian material actually belongs to *C. habeleri* (Fig. 22), and it is why *C. schleichi* should be deleted from Czech lepidopteran fauna. Genetically *C. habeleri* is most closely related to *C. messneri* Huemer, 2020 with 3.28% p-distance, for other details see Fig. 22. Bionomy remains unknown, but the species is most likely associated with *Dianthus* spp. as its hostplant (Huemer 2020). New species for the Czech Republic.

*Nothris gregerseni* Karsholt et Šumpich, 2015. Moravia mer.: Podyjí National Park, Hnanice, 20.viii.2007, 1 ♂ (gen. prep. 18270, J. Šumpich) (DNA Barcode TLMF Lep 25159), J. Šumpich leg. et det., coll. NMPC; Podyjí National Park, Havraniky (7162), 15.ix.2021, 1 ♂ (DNA Barcode NMPC-Lep-1234), 2 ♀♀ (gen. prep. by J. Liška) (Figs 24–25), all J. Liška leg. et det., coll. NMPC.



Figs 24–31. Voucher specimens of recorded species. 24–25: *Nothris gregersenii* Karsholt et Šumpich, 2015, Havraníky. 24. Male. 25. Female. 26. *Bactra furfurana* (Haworth, 1811), Církvice. 27–29: *Notocelia mediterranea* (Obraztsov, 1952), Šobes. 27–28. Males. 29. Female. 30. *Epinotia subsequana* (Haworth, 1811), Jemnice-Třebětice. 31. *Grapholita nebritana* (Treitschke, 1830), Sedlec near Mikulov. Photographs by J. Šumpich (24–25, 27–31), M. Žemlička (26). Obr. 24–31. Sbírkové doklady zaznamenaných druhů. 24–25: *Nothris gregersenii* Karsholt et Šumpich, 2015, Havraníky. 24. Samec. 25. Samice. 26. *Bactra furfurana* (Haworth, 1811), Církvice. 27–29: *Notocelia mediterranea* (Obraztsov, 1952), Šobes. 27–28. Samci. 29. Samice. 30. *Epinotia subsequana* (Haworth, 1811), Jemnice-Třebětice. 31. *Grapholita nebritana* (Treitschke, 1830), Sedlec u Mikulova. Fotografie J. Šumpich (24–25, 27–31), M. Žemlička (26).

*Nothris gregerseni* was recently distinguished from *N. lemniscellus* (Zeller, 1839) and described based on specimens collected in Denmark and Sweden (Karsholt & Šumpich 2015). Current known distribution includes North-East Europe (Karsholt & Šumpich 2015, Aarvik et al. 2017, 2021), Turkey (Kemal & Koçak 2017), and Russia (Altai Mts) (Huemer et al. 2020). Specimens from Morocco were also provisionally referred to this species (Karsholt & Šumpich 2015). Bionomy unknown. According to information presented here, both sister species *N. lemniscellus* and *N. gregerseni* occur in Czech Republic, but in Bohemia only *N. lemniscellus* has been found so far, while in southern Moravia both species occur sympatrically and syntopically (J. Liška and J. Šumpich observ.). Some male specimens cannot be distinguished either by external appearance or genitalia, but there are reliable distinguishing characters on the female genitalia. The presented males were assigned to this species using barcode data (Fig. 23). New species for the Czech Republic.

## Tortricidae

*Bactra furfurana* (Haworth, 1811). Bohemia bor., Církvice (5450), 18.vii.2007, 1 ♂ (genitalia examined) (Fig. 26), M. Žemlička leg., det. et coll.

Holarctic species, known from most countries in Europe, including all countries of central Europe except Slovenia (Šumpich et al. 2022b). In Czech Republic scattered distribution in southern Moravia, but from Bohemia, only one very old record from Čisovice near Mníšek pod Brdy is available (Sterneck & Zimmermann 1933). *Juncus* spp. and *Scirpus* spp. are mentioned as hostplants (Razowski 2003). Occurrence in Bohemia is confirmed after approximately 100 years.

*Notocelia mediterranea* (Obraztsov, 1952). Moravia mer.: Podyjí National Park, Šobes (7061), 12.ix.2021, 3 ♂♂ (1 spec. gen. prep. by J. Liška) (DNA Barcode NMPC-Lep-1232), 3 ♀♀ (Figs 27–29), all J. Liška leg. et det., coll. NMPC; Podyjí National Park, Ledové sluje, Obelisk monument, 11.vi.2022, 1 ♂, J. Šumpich leg. et det., coll. NMPC.

The species was described from Italy (the surroundings of Rome) as a sister species of *N. incarnatana* (Hübner, [1800]) (Obraztsov 1952). Although the species was never synonymized, its occurrence has not been published anywhere since the date of its discovery. The fact that *N. mediterranea* is actually a valid species was first published by Šumpich et al. (2022b), who at the same time indicated its wide distribution in central and southern Europe (Bulgaria, Croatia, France, Hungary, Montenegro, Slovakia, and Spain). Based on this work, occurrence of the species with all faunistic details was subsequently published from Slovakia (Tokár et al. 2021) and Hungary (Fazekas et al. 2023). A comprehensive re-description of the species including figures of the genitalia of both sexes, molecular data, and an overview of all available faunistic data is being prepared for publication in a separate contribution (J. Šumpich and J. Liška, unpubl.). New species for the Czech Republic.

*Epinotia subsequana* (Haworth, 1811). Moravia or., Jemnice env., Třebětice (6959), 30.iv.2022, 2 ♂♂ (Fig. 30), 3 spec. observ., J. Liška leg. et det., coll. NMPC. Bohemia cent.: Tetín env., Koda National Nature Reserve (6050), 23.iv.2022, 3 ♂♂ and 4 spec. observ., 19.v.2022, 2 ♀♀, 23.v.2022, 2 ♀♀ observ.; Český Šternberk-Šternov (6155), 29.iv.2022, 1 ♂ and 2 spec. observ., Zbraslavice env., Čestín (6256), 29.iv.2022, 2 ♂♂ and 2 spec. observ., Brdy



Mts., Tok (6249), 840 m a.s.l., 6.v.2022, 1 ♂ and 2 spec. observ., Pilská nádrž dam reservoir (6349), 700 m a.s.l., 19.v.2022, 1 ♂. All spec. J. Liška leg. et det., coll. NMPC.

Widely distributed species in Europe, mainly at higher elevations. In central Europe recorded from all countries except Hungary (Šumpich et al. 2022). In Czech Republic its occurrence is still known only from Bohemia, initially without any details (and with a question mark) by Sterneck & Zimmermann (1933). Recent reliable records were published from Černošín in western Bohemia (Novák et al. 1997) and Blanský les (forest) in southern Bohemia (Šumpich et al. 2022b). We present additional records of this rare species from Bohemia here. Larvae are associated predominantly with *Abies alba*. New species for Moravia.

***Epibactra immundana*** (Eversmann, 1844). Moravia mer.: Popice (7066), 3.ix.2021, 1 ♂, an old cherry orchard with islands of steppe vegetation; Pouzdřanská step National Nature Monument (7065), 5.ix.2022, 1 ♂, both Z. Laštůvka leg., det. et coll.

West Palaearctic species, known from eastern parts of central, southeastern, and eastern Europe. In central Europe reported from Austria, Czech Republic, Hungary, and Slovakia (e.g., Šumpich et al. 2022b). In Czech Republic found only once, three males collected by F. Gregor on the Pouzdřany steppe in 1947 (Šumpich & Skyva 2008), published as *Epibactra sareptana* (Herrich-Schäffer, 1861). Confirmed occurrence in the Czech Republic (at the same site and at another locality in close proximity) after 75 years.

***Grapholita nebritana*** (Treitschke, 1830). Moravia mer., Sedlec u Mikulova, Skalky Natural Monument (7266), 12.v.2022, 1 ♂ (Fig. 31), J. Liška leg. et det., coll. NMPC.

Species distributed in the western Palaearctic, in Europe not recorded in northern areas. In central Europe rare but recorded from all countries (for Poland, only very old records are known) (Šumpich et al. 2022b). In Czech Republic, its occurrence was published from Bohemia and Moravia, but all records are from the beginning of the 20th century (Sterneck & Zimmermann 1933, Gartner 1866, Zimmermann 1922), mostly unsupported by any collection material. Larvae develop mainly in the fruits of *Colutea* and probably also in *Pisum*. Confirmed occurrence in the Czech Republic after approximately 100 years.

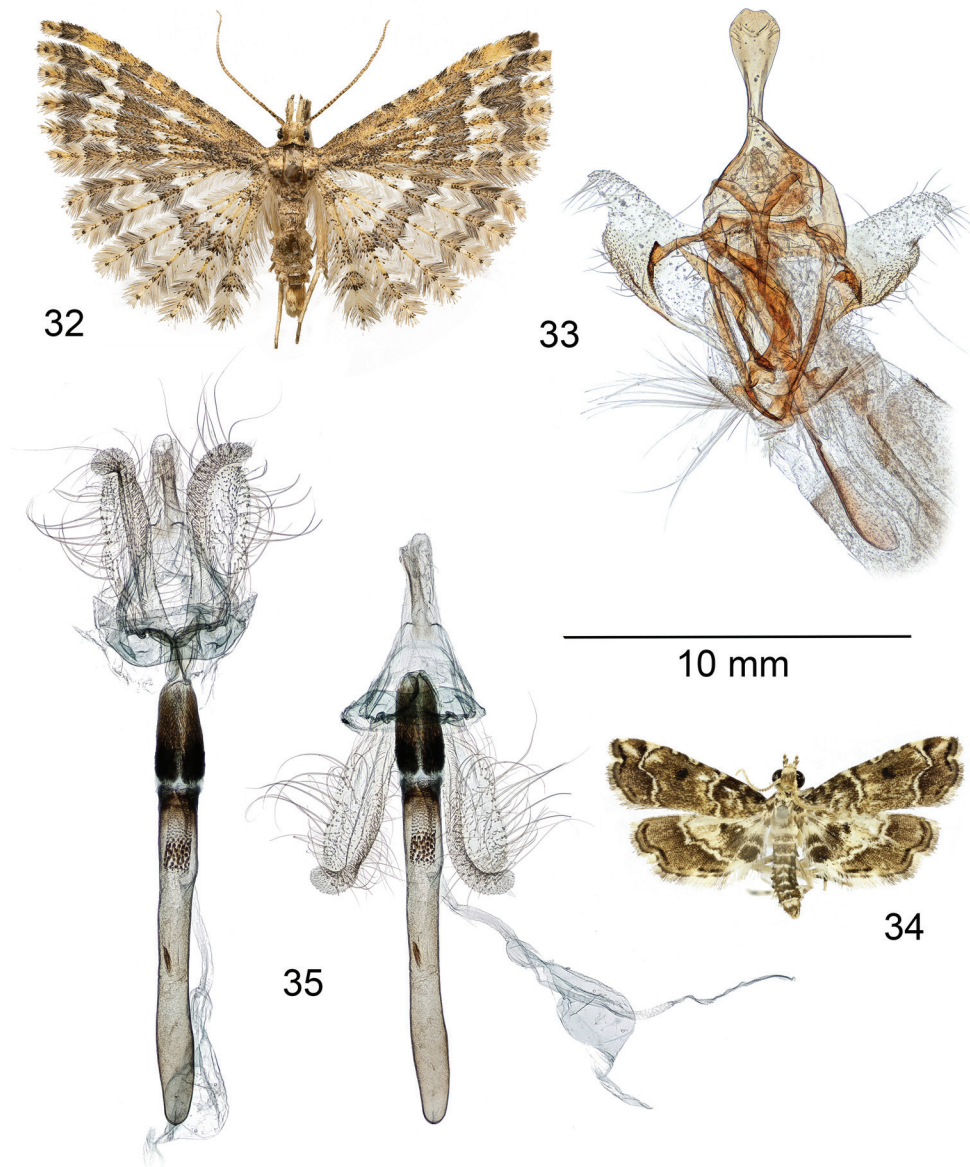
## Choreutidae

***Choreutis nemorana*** (Hübner, [1799]). Moravia mer., Kyjov (6968), 12.viii.2022, 1 ♂, J. Uříčář leg., det. et coll.; Brno-Černá Pole (6765), 27.vi.2023, larvae on *Ficus carica*, H. Šefrová leg., det. et coll.

In Czech Republic, this species was first recorded in 2019 from the Olomouc region (M. Březiková, pers. comm.), but we were unable to obtain any details of these records. Palaearctic species recorded in southern countries from the Canary Islands and northern Africa in the west to central Asia and China (Diakonoff 1986). In central Europe found in all countries, but often only in greenhouses (Šumpich et al. 2022b). Larvae develop on *Ficus carica*. The first fully documented records of this alien species in the Czech Republic.

## Alucitidae

***Pterotopteryx dodecadactyla*** Hübner, 1813. Bohemia bor.: České středohoří Protected Landscape Area, Milešovka hill, 15.viii.2012, 3 spec. (Fig. 32), disturbed from *Lonicera* sp., M. Žemlička leg. et det., coll. Regionální muzeum v Teplicích, Teplice, Czech Republic;



Figs 32–35. Voucher specimens of recorded species. 32–33: *Pteropteryx dodecadactyla* Hübner, 1813. 32. Male, Milešovka hill. 33. Male genitalia, Podyjí, Ledové sluje caves. 34–35: *Sufetula boileauae* Nel, 2022, Štoky. 34. Male. 35. Male genitala (two different views). Photographs by Z. Ceé (32), J. Šumpich (33–35).  
 Obr. 32–35. Sbírkové doklady zaznamenaných druhů. 32–33: *Pteropteryx dodecadactyla* Hübner, 1813. 32. Samec, Milešovka. 33. Samčí genitálie, Podyjí, Ledové sluje. 34–35: *Sufetula boileauae* Nel, 2022, Štoky. 34. Samec. 35. Samčí genitálie (dva různé pohledy). Fotografie Z. Ceé (32), J. Šumpich (33–35).

Slunečná env., Kozlík hill (5252), 475 m a.s.l., 17.viii.2022, 2 spec., J. Skyva leg., det. et coll. Bohemia centr.: Praha-Radotín (6052), 26.vii.1944, 1 spec., V. Zouhar leg., J. Skyva det. et coll.; Praha-Radotín, Cikánka Natural Monument (6052), 19.vii.1999, 1 spec., J. Skyva leg., det. et coll.; Praha-Radotín, Maškův mlýn (6052), 11.viii.2015, 1 spec., J. Mařík leg. et coll., J. Skyva det.; Praha-Kosoř (6051), 6.vii.2002, 3 spec., 28.vii.2005, 3 spec., J. Korynta leg., J. Skyva det. et coll.; Praha-Zlíchov (5951), 6.–7.ix.2014, 4 spec., J. Mařík leg. et coll., J. Skyva det.; Vonoklasy-Občina (6051), 11.viii.2020, 2 ♂♂; Tetín env., Koda National Nature Reserve (6050), 24.vii.2022, 1 ♂ and 2 spec. observ., all J. Liška leg. et det., coll. NMPC. Bohemia occ., Doupovské hory, Kadaň env., Vlkaň env., Dubový vrch hill (5645), 660 m a.s.l., 4.viii.2022, 2 spec., J. Skyva leg., det. et coll.; Moravia mer., Podyjí National Park, Ledové sluje caves, 25.viii.2022, 1 ♂ (gen. prep. 22249, J. Šumpich) (Fig. 33), J. Šumpich leg. et det., coll. NMPC.

Palaeartic species, in Europe widely distributed, recorded in all neighbouring countries of Czech Republic (Šumpich et al. 2022b). A rare species in Czech Republic until now, but has apparently been spreading in recent years. In Bohemia it has been recorded from more sites (Sterneck & Zimmermann 1933, Schwarz 1953), but no recent records are available. From the Moravian-Silesian region, only a historical record from Jeseník (Silesia) is known so far (Skala 1923–1924). Unfortunately, no faunistic details are mentioned in this work, H. Skala only mentions the communication of P. Nagel from Wrocław (Poland), according to whom the species was discovered by Friedrich in Jeseník. Larvae develop on *Lonicera* spp. Confirmed occurrence in the Czech Republic after more than 70 years.

## Crambidae

*Sufetula boileauae* Nel, 2022. Bohemia or., Štoky (6559), 21.ii.2016, 2 ♂♂ (gen. prep. 17029, J. Šumpich) (DNA Barcode NMPC-Lep-0253 and NMPC-Lep-0262) (Figs 34–35), ex pupa, J. Moravec leg., J. Šumpich det., coll. NMPC.

The present Czech specimens were provisionally identified as *S. diminutalis* (Walker, 1866) (Šumpich et al. 2022b), which was described from Honduras and occurs naturally in southern Central America and northern South America (Hayden 2013). However, both specimens were reared from palm *Phoenix roebelenii*, native to southeast Asia and purchased in a Prague supermarket. Communication with the manager of the chain of commerce revealed that the growing of this palm takes place in Central America, from where the product is subsequently moved to Europe. It is therefore clear that the plants were contaminated during cultivation in Central America. In Europe, *S. diminutalis* was first recorded in Leipzig in Germany (in a tropical house in a zoo) in 2012 (Graf et al. 2014). Later it was also confirmed in Baden-Württemberg (Germany) and in Oostvoorne in the Netherlands (Lepiforum 2023). In America it was registered as a pest in palm cultures, in Baden-Württemberg it was reared from *Dypsis lutescens*, which is endemic to Madagascar (Lepiforum 2023). According to Genty & Mariau (1975) *S. diminutalis* damages the aerial roots of young oil palms (*Elaeis guineensis*).

The description of *S. boileauae* was based on one male found in a flat in France, where it was reared from the areca palm *Dypsis lutescens*, with the origin of this palm being traced through the nursery where it was purchased to Honduras (Nel 2022). Unfortunately, the result from barcoding of the holotype was not known before the species description,



Fig. 36. Phylogenetic tree of *Sufetula boileauae* Nel, 2022 and *Sufetula* species provisionally identified as *S. diminutalis* (Walker, 1866) as the most closely related species, constructed from public records in BOLD. Source: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).

Obr. 36. Fylogenetický strom *Sufetula boileauae* Nel, 2022 a druhu *Sufetula*, předběžně určeného jako *S. diminutalis* (Walker, 1866), jako nejbližšího druhu, vytvořeno podle veřejných údajů v systému BOLD. Zdroj: Barcode of Life. Database, cf. Ratnasingham & Hebert (2007).

so it was not possible to look for a match in BOLD (Ratnasingham & Hebert 2007). Both Czech specimens were successfully barcoded in 2019 and the BIN: ADR5494 was assigned to them. The holotype has a 100% match with the Czech specimens (BOLD, visited 16 March 2023) (Fig. 36).

A cluster of *S. boileauae* currently contains four non-public records (one from France – holotype, two from Czech Republic and one from Costa Rica), in which the average intraspecific divergence of the barcode region is 0.21% (p-dist) (maximum 0.32%) and the distance to the nearest neighbour, cluster of three specimens from Florida and Germany, in BOLD currently identified as *S. diminutalis* (BIN: ACQ0790, n = 1), is 2.4% (p-dist). Photographs of German specimens (from Baden-Württemberg) are depicted in Lepiforum and one specimen collected in Austria (from Wien in 2022) is assigned to them (Lepiforum 2023). The species identity of these specimens as well as all other European specimens belonging to *Sufetula* genus should be investigated in a separate study as the true *S. diminutalis* forms a separate, genetically distant cluster with a different BIN (AAH5889; n= 12; all records from Honduras and Costa Rica). The currently known distribution of *S. boileauae* comprises with certainty only France and Czech Republic, and according to Nel (2022) most likely also Honduras. The origin of the Czech specimens is restricted to Central America. The first record of this American species in the Czech Republic, introduced with ornamental plants, without the formation of a lasting population.

## Erebidae

*Catocala puerpera* (Giorna, 1791). Bohemia bor.: Církvice village (5450), 13.viii.2021, 1 ♀; Církvice env., Deblík hill (5450), 14.viii.2022, 1 ♀ (Fig. 37), in a quarry. Both females collected during day, M. Žemlička leg., det. et coll.

Widely distributed species in southern Europe, from Spain to south Russia (Goater et al. 2003). In Czech Republic rare in southern Moravia (records from last years cf. Šumpich 2011, Laštůvka & Laštůvka 2020). Larvae on *Populus* spp. and *Salix* spp. (Goater et al. 2003). New species for Bohemia.



Figs 37–38. Voucher specimens of recorded species. 37. *Catocala puerpera* (Giorna, 1791), Církvice. 38. *Chrysodeixis eriosoma* (Doubleday, 1843), Praha. Photographs by M. Žemlička (37), J. Šumpich (38).

Obr. 37–38. Sbírkové doklady zaznamenaných druhů. 37. *Catocala puerpera* (Giorna, 1791), Církvice. 38. *Chrysodeixis eriosoma* (Doubleday, 1843), Praha. Fotografie M. Žemlička (37), J. Šumpich (38).

## Noctuidae

*Chrysodeixis eriosoma* (Doubleday, 1843). Bohemia centr., Praha-Chodov, 2.iii.2022, 1 ♂ (gen. prep. 23043, J. Šumpich), pupa on a stem with a bunch of tomatoes (bought in a Prague hypermarket), K. Haltufová leg., A. Pavlíčko reared, J. Šumpich det., coll. NMPC (Fig. 38).

Migrant with a tropical and subtropical distribution. Occur from Pakistan and India to the Australian Region and Polynesia (Behounek et al. 2010). In recent years it has been recorded in greenhouses in various European countries, firstly in Great Britain (Hampshire) in 2002 (Pickles 2005). Later, it was found in more places in Germany (Lepiforum 2023). The larvae are polyphagous on a wide range of plant families and a pest of crops in the Cruciferae, Leguminosae, Malvaceae, and Solanaceae. From India it is reported as a serious crop pest (Twinkle et al. 2020). The first record of this alien species in the Czech Republic, which does not occur in our territory, but was introduced with a shipment of tomatoes and was caught by chance among hundreds of other similar introductions.

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