

## Interesting collections of polypores in the Czech Republic, particularly in Moravia – I

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DVOŘÁK D. & BĚŤÁK J. 2017: Interesting collections of polypores in the Czech Republic, particularly in Moravia – I. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **102(1)**: 49–87. – An annotated list of some remarkable collections of rare polypores, mainly from the territory of Moravia, is given. Altogether, 36 species are presented, most of them illustrated with a colour photograph. Some information on their distribution, ecology and key characters is provided. New localities of species previously known merely from only one (*Aurantiporus alborubescens*, *Chaetoporellus latitans*, *Riopa metamorphosa*) or two (*Jahnoporus hirtus*) in Czechia were disclosed, and a few species (*Byssoporia terrestris*, *Phellinus lundellii*) are published for the first time for the territory of Moravia. Further, many new localities for certain other very rare polypores (*Gelatoporia subvermispora*, *Porotheleum fimbriatum*, *Tyromyces kmetii*, *Yuchengia narymica*) are presented.

**Key words.** Moravia, rare polypores, new records

### Introduction

Polyporoid fungi (or Polyporales s.l.) are among the best-explored groups of macromycetes in Czechia, thanks to the many prominent mycologists who have addressed this group in the past (A. Pilát, F. Kotlaba, Z. Pouzar, A. Černý, P. Vampola, J. Vlasák and many others). A milestone work by KOTLABA (1984) summarized the ecology and distribution of all polyporoid species in the territory of former Czechoslovakia and constitutes a standard reference work for Czech (and Slovak) mycologists interested in polypores. Since then, many new species of polypores have been discovered for the Czech Republic (KOTLABA & POUZAR 1985; KOUT 2008; KOUT *et al.* 2014; TOMŠOVSKÝ & JANKOVSKÝ 2008; TOMŠOVSKÝ *et al.* 2010b; VAMPOLA 1991a, 1991b, 1991c, 1992a, 1992b, 1993a, 1993b, 1995a, 1995b, 1996, 2008a, 2008b; VAMPOLA & POUZAR 1993, 1994, 1996a, 1996b; 2006; VAMPOLA & VÁGNER 1995, 2007; VAMPOLA & VLASÁK 1992, 2012; VAMPOLA *et al.* 1995; VLASÁK 1990; VLASÁK & KOUT 2010; VLASÁK *et al.* 2012; ZÍBAROVÁ & KOUT 2014) and global knowledge of the biology and taxonomy of polyporoid species has improved considerably. In recent years, several smaller floristic studies and additions addressing various species of polypores have also made contributions (e.g. KOUT 2013; KOUT & VLASÁK 2009, 2011, 2013). The latter papers motivated us to summarize and publish our field data on interesting polyporoid species and thus supplement knowledge of the Czech polypore mycoflora. This article is the first part of our study and will be continued.

We dedicate this paper to prominent Czech polyporologists, František Kotlaba and Zdeněk Pouzar, on the occasion of their life anniversaries.

### Material and methods

Most of the collections were acquired during systematic surveys of certain Nature Reserves and Nature Monuments in Moravia, protected under law by the state administration. Only lower numbers of records originate from forests not protected by law, so the overall picture of distribution and ecological demands of the species in question may be biased towards “natural”, protected sites. The vast majority of the recorded species are also documented by herbarium specimens, in most cases deposited in the personal herbaria of the authors (herb. DD, herb. JB), and possibly in the herbarium of Masaryk University, Brno (BRNU), herbarium of the National Museum in Prague (PRM) or the herbarium of the Museum of the Eastern Bohemia in Hradec Králové (HR). The specimens were studied by routine methods by means of Olympus CX-41 and Zeiss Primo Star microscopes and determined according to standard, widely-used keys (BERNICCHIA 2005, RYVARDEN & MELO 2014), unless otherwise indicated.

The conservation status of each species according to the Red List (RL) of macromycetes of the Czech Republic (HOLEC & BERAN 2006) is quoted in parentheses after the scientific name of each species. The respective abbreviations are : CR – critically endangered, EN – endangered, VU – vulnerable, NT – near-threatened, DD – data-deficient.

The description of each locality is structured as follows: Country (in bold), higher geomorphological unit or specially protected area (National Park/Protected Landscape Area), municipality (district), protected area (if any), detailed geographical localization, habitat, substrate, date of collection, leg. et det. (herbarium). We assign the localities to either Bohemia or Moravia according to the two “historical” territories of the current Czech Republic; what was previously Austrian Silesia is included in Moravia (see KMENT 2009). The list of localities is ordered in an approximate geographical position from west to east and from north to south. Localities in different geographical units are separated by em dash (—) while localities within the same geographical unit are separated by en dash (–). Semicolon indicates different findings from the same locality. The collections shown in the photographs are underlined. Names of vascular plants follow DANIELKA *et al.* (2012). Decay stage (DS) refers to a five-point scale (I–V) adapted after RENVALL (1995) for conifers and after HEILMANN-CLAUSEN (2001) for hardwood genera.

Other abbreviations used include: NNR – National Nature Reserve, NNM – National Nature Monument, NR – Nature Reserve, PLA – Protected Landscape Area, NM – Nature Monument, NP – National Park, *ibid.* – *ibidem*, DD – Daniel Dvořák, JB – Jan Běťák, *not.* – *notavit* = noted (see KOTLABA 1999), *conf.* – confirmed, *diam.* – diameter, W – west, N – north, E – east, S – south.

Names of certain tree species are abbreviated and only generic names are cited: *Carpinus* = *Carpinus betulus*, *Fagus* = *Fagus sylvatica*, *Larix* = *Larix decidua*, *Picea* = *Picea abies*.

## Results

### *Albatrellus confluens* (Alb. & Schwein.) Kotl. & Pouzar (Fig. 1)

**Material examined.** **Bohemia.** Šumava NP, Srní (distr. Klatovy), valley of the River Vydra c. 1 km NE of the village, on river bank in *Picea* forest (together with *Hydnellum geogenium* (Fr.) Banker, *H. floriforme* (Schaeff.) Banker, *Phellodon connatus* (Schultz) P. Karst.), 30 Aug. 2007 leg. et det. DD (herb. DD 221/07). — Novohradské podhůří, Malonty (distr. Český Krumlov), place known as “Bělá” c. 1.8 km S of village, on the ground among *Vaccinium myrtillus* in *Pinus sylvestris* forest, 29 Sept. 2008 leg. et det. DD (herb. DD 468/08); ibid., on the ground in *Picea-Pinus sylvestris* forest, 29 Sept. 2008 leg. et det. DD (herb. DD 490/08). — Králický Sněžník, Dolní Morava (distr. Ústí nad Orlicí), in the valley of the River Morava c. 4.5 km NNE of the chapel in the village, old spruce stand on the river bank (together with *Hydnellum peckii* Banker, *Sarcodon imbricatus* (L.) P. Karst.), 2 Oct. 2012, 12 Sept. 2013 et 19 Aug. 2014 leg. et det. DD (herb. DD 121002-01, 130912-08, 140819-19); ibid., 26 Jul. 2014 not. DD. — **Moravia.** Jeseníky PLA, Rejvíz (distr. Jeseník), Rejvíz NNR, on the ground in moist *Picea* stand by a brook (together with *Bankera violascens* (Alb. & Schwein.) Pouzar, *Cortinarius limonius* (Fr.) Fr., *Hydnellum concrescens* (Pers.) Banker, *Lactarius zonarioides* Kühner & Romagn., *Phellodon connatus*, *P. niger* (Fr.) P. Karst., *Sarcodon imbricatus*, *Tricholoma viridilutescens* M.M. Moser and others), 22 Aug. 2011 leg. et det. DD (herb. DD 308/11). — Chřiby Hills, Salaš (distr. Uherské Hradiště), in the valley of the left-side tributary of the Salaška stream c. 3.5 NW of the church in the village, S of the Nazaret NM, on the ground in spruce forest, 17 Sept. 2010 not. JB. — Beskydy PLA, Horní Bečva (distr. Vsetín), W slope of the Okruhlanka Hill, *Picea* forest with sporadic *Abies alba*, 9 Sept. 2006 leg. et det. P. Hrouda (BRNU 634668).

**Remarks.** A somewhat rare mycorrhizal conifer-associated terrestrial polypore, much more scarce in our experience than the similar *Albatrellus ovinus* (Schaeff.) Kotl. & Pouzar. Most of our collections come from localities with rich occurrence of rare mycorrhizal species (e.g. hydnaceous fungi).

### *Albatrellus cristatus* (Schaeff.) Kotl. & Pouzar (Fig. 2)

**Material examined.** **Bohemia.** Šumava NP, Zhůří (distr. Klatovy), valley of the River Vydra between its confluence with the Hrádecký potok Stream and Čeňkova pila sawmill, at the margin of conifer forest (*Abies alba*, *Picea*) by the forest road, 28 Aug. 2007 leg. et det. DD (herb. DD 177/07). — Třeboňsko PLA, Staňkov (distr. Jindřichův Hradec), SW slope of Nadějov Hill c. 2 km NE of the village, on the ground in beech-dominated mixed forest, 26 Sept. 2005 not. DD. — **Moravia.** Bobravská vrchovina Uplands, Brno-Ivanovice (distr. Brno-město), Sychrov Hill NW of the village, on the ground in thermophilous oak forest, 26 Aug. and ? Sept. 2006 leg. L. Straka, det. DD (herb. DD 138/06, 240/06); ibid., 22 Sept. 2014 leg. et det. DD (herb. DD 140922-11). — Ibid., SE slope of the Velká Baba Hill, near the green-marked tourist path, oak forest, 28 Sept. 2014 leg. J. Salaš, det. DD (BRNU 634644). — Brno-Žebětín, on the slope above the brook c. 1.3 km W of the village, on the ground in mixed broadleaved forest, 9 Sept. 2006 not. L. Opatřilová, det. DD. — Chřiby Hills, Salaš (distr. Uherské Hradiště), Máchova dolina NM, c. 3.4 km NW of the village, acidophilous beech forest, on bare soil under *Fagus*, 16 Sept. 2010 leg. et det. JB (herb. JB10/1323). — Ibid., Smutný žleb NR, c. 3.3 km WNW of the village, acidophilous beech forest, on bare soil under *Fagus*, 17 Sept. 2010 leg. et det. JB (herb. JB10/1367). — Podyjí NP, Čížov (distr. Znojmo), c. 1.7 km S of the national park visitor centre in the village, on the slope towards the valley of Klaperův potok Brook under the Kozí stezka view-point, on bare, base-rich soil under *Quercus* sp., 11 Oct. 2014 not. M. Kříž.

**Remarks.** This species is easily recognized in the field by the peculiar yellow-brown to greenish-yellow coloration of its pileus surface and white pore surface with quite large pore mouths. RYVARDEN & MELO (2014) consider it a symbiont of oak, but our evidence

shows a much broader host range, including *Fagus* and conifers. KOTLABA (1984) also published relatively a high proportion of occurrences in coniferous (mainly *Picea*) forests. Our own observations indicate that the species occurs on both acidic and calcareous bedrock.

***Albatrellus pes-caprae* (Pers.) Pouzar (RL: VU)**

**Material examined.** Moravia. Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Maršava NM, southernmost segment of protected area, acidophilous oak-beech forest, on bare soil under *Fagus* and *Quercus* sp., 15 Sept. 2010 leg. et det. JB (herb. JB10/1292). – Salaš (distr. Uherské Hradiště), Máchova dolina NM, c. 3.4 km NW of the village, acidophilous beech forest, on bare soil under *Fagus*, 16 Sept. 2010 leg. et det. JB (herb. JB10/1328). – Ibid., Smutný žleb NR, c. 3.3 km WNW of the village, acidophilous beech forest, on bare soil under *Fagus*, 17 Sept. 2010 leg. et det. JB (herb. JB10/1378).

**Remarks.** Mycorrhizal species, in the Czech Republic published only from coniferous, mainly pine, forests (KOTLABA 1984, KOTLABA *et al.* 2006a). Multiple records from Chřiby Hills indicate that well-preserved acidophilous beech forests may be an important refugium for this rare polypore, as they are for certain other mycorrhizal fungi generally known as conifer-associated species (*Amanita virosa* Bertill., *Boletus pinophilus* Pilát & Dermek, *Cortinarius caperatus* (Pers.) Fr., *Hydnellum concrescens*, *Phellodon niger*).

***Albatrellus subrubescens* (Murrill) Pouzar**

(Fig. 3)

= *Albatrellus similis* Pouzar

**Material examined.** Moravia. Žulovská pahorkatina Downs, Velká Kraš (distr. Jeseník), Smolný vrch Hill c. 3.5 km SSE of the village, Venušiny misky NNM, on the ground in *Pinus sylvestris* forest on granite bedrock, 12 Nov. 2012 and 1 Oct. 2013 leg. et det. DD (herb. DD 121112-20, DD 131001-17). – Žulová (distr. Jeseník), Borový NNM, Borový Hill NE of the village, on the ground in *Pinus sylvestris* forest on granite bedrock, 18 Oct. 2013 not. D. Dvořák.

**Remarks.** Mycorrhizal terrestrial species, known from Czech territory from a few dozen older records (mainly in south Bohemia – POUZAR 1974, KOTLABA 1984). In recent decades it has probably become rare, although recently published from Povydří in Šumava Mts. (HOLEC 2004). It has not previously been published for northern Moravia. It may be overlooked due to its resemblance to the more common *A. ovinus*, which has, however, inamyloid spores and is associated with *Picea*.

***Antrodiella citrinella* Niemelä & Ryvarden (RL: EN)**

(Fig. 4)

**Material examined.** Bohemia. Český les PLA, Lesná (distr. Tachov), Ostrůvek NR c. 6 km NWbW of the village, old mixed forest (*Fagus*, *Picea*), mossy fallen trunk of *Picea* (60 cm in diam., DS III-IV; together with *Camarops tubulina* (Alb. & Schwein.) Shear), 21 Oct. 2012 leg. et det. DD (herb. DD 121021-20); *ibid.*, on fallen trunk of *Fagus*, leg. et det. M. Kříž (PRM860700). — Táboršká vrchovina Uplands, Hluboká nad Vltavou (distr. České Budějovice), Karvanice NR, on the slope above left bank of River Vltava, mixed forest, on fallen trunk of *Picea* (20 cm in diam., DS II) with brown rot and on fracture surface of large fallen trunk of *Abies alba* with bark (c. 70 cm in diam., DS II; together with *Fomitopsis pinicola* (Sw.) P. Karst. in both cases),

17 Oct. 2016 leg. et det. DD (herb. DD 141017-23, 141017-37). — Králický Sněžník, Dolní Morava (distr. Ústí nad Orlicí), buffer zone of Králický Sněžník NNR, valley of Kamenitý potok Stream near the marble quarry, on the borderline between young spruce plantation and patch of old broadleaved forest (*Fagus*, *Acer pseudoplatanus*, *Ulmus glabra*), on windthrown mossy trunk of *Picea* (40 cm in diam.), together with *Camarops tubulina* and *Fomitopsis pinicola*, 24 Apr. 2014 leg. et det. DD (herb. DD 140424-09). — **Moravia**. Jeseníky PLA, Malá Morávka (distr. Bruntál), Praděd NNR, valley of Bílá Opava Brook, fallen trunk of *Picea* (with *Fomitopsis pinicola*), 25 Oct. 2011 leg. et det. H. Deckerová (herb. HD); *ibid.*, N of Eustaška hunting lodge, natural mountain spruce forest, on several decaying trunks of *Picea* (in all cases together with *Fomitopsis pinicola*), 24 Jun. 2015, 4 Nov. 2015, 5 Nov. 2015 leg. et det. D Dvořák et JB (herb. DD Eus8/6, Eus17/4, Eus20/4; herb. JB15/2122, 15/2112). — Vernířovice (distr. Šumperk), Břidličná NR, valley of a brook between Břidličná hora and Jelení hřbet, mountain spruce forest, on fallen trunk of *Picea*, 26 Sept. 2014 leg. et det. Dvořák (herb. DD 140926-26); *ibid.*, 27 Sept. 2015 not. DD. — Ludvíkov (distr. Bruntál), Jelení bučina NR c. 3.5 km W of the village, natural mixed mountain forest (*Picea*, *Fagus*), on fallen trunks of *Picea* and *Fagus*, 21 Oct. 2013 leg. et det. DD (herb. DD 131021-08, 131021-09). — Nízký Jeseník, Rešov (distr. Bruntál), Rešovské vodopády NNM, near the confluence of the Huntava and Tvrdkovský potok brooks, shady spruce forest on scree, heavily decayed fallen trunk of *Picea* (40 cm in diam., together with *Camarops tubulina*), 29 Apr. 2013 leg. et det. DD (herb. DD 130429-13). — Beskydy PLA, Horní Lomná (distr. Frýdek-Místek), Mionší NNR, southern slope of “Velká Polana” hill, beech-fir natural forest, on decaying trunk of *Abies alba* (together with *Fomitopsis pinicola*), 13 Nov. 2015 leg. et det. JB (herb. JB15/2324).

**Remarks.** Striking species with distinctly and sometimes quite brightly yellow fruiting bodies, resupinate to effuso-reflex, but often rather small and inconspicuous. It was first found in Czech territory in 1972 by J. Kubička, but the collection was correctly determined only 19 years later (VAMPOLA 2011). It appears to be constantly present in well-preserved mixed montane forests and also in montane spruce forests. As has already been noted (BĚŘÁK 2015), localities in deep, narrow valleys and ravines with cold microclimate and inverse character (at c. 350–450 m a.s.l. – Rešovské vodopády NNM, U doutné skály NR, Karvanice NR) provide refugia for this otherwise montane species at lower altitudes. In almost all collections (regardless the host tree species), the presence of *Fomitopsis pinicola* was observed, which is in agreement with its putative function as a predecessor species of *A. citrinella* (NIEMELÄ *et al.* 1995, PIATEK 2001). In many cases, *Camarops tubulina* has also been found on the same trunk as *A. citrinella*.

*Aurantiporus alborubescens* (Bourdot & Galzin) H. Jahn (Fig. 5)

**Material examined. Moravia.** Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Holý kopec NR, western part, near-natural beech forest, on uprooted trunk of *Fagus*, 17 Aug. 2014 not. JB. — Křižanovská vrchovina Uplands, Lažánky (distr. Brno-venkov), Slunná NR, fenced part of reserve, old beech forest, on uprooted trunk of *Fagus*, 29 Jun. 2015 leg. et det. JB (herb. JB15/388); *ibid.*, 29 Aug. 2016 not. JB; *ibid.*, 13 Oct. 2016 leg. et det. JB (herb. JB16/477).

**Remarks.** Very rare species, confined to large, living or dead trunks of *Fagus*. To date, known mainly from NW Europe; the authors published the first collection in the Carpathians a few years ago (DVOŘÁK *et al.* 2014). The same year, the species was confirmed at the same locality and shortly after that, the second author (JB) found this species in the Slunná reserve, near the eastern border of the Bohemian massif (i.e. outside the Carpathians). It has also been found recently in Hungary (PAPP 2015).

**Buglossoporus quercinus (Schrad.) Kotl. & Pouzar (RL: VU) (Fig. 6)**

= *Piptoporus quercinus* (Schrad.) Pilát

**Material examined. Bohemia.** České středohoří PLA, Velemín (distr. Litoměřice), on E slope of unnamed ridge on eastern hillside of Milešovka, open oak forest with *Sorbus torminalis*, on dead wood of dying *Quercus petraea*, 27 Aug. 2013 leg. J. Sychra, det. DD (BRNU 634561). — **Moravia.** Jevišovická pahorkatina Downs, Vratěnín (distr. Znojmo), Bílý kříž NR, on the left bank slope overlooking the River Dyje, oak-hornbeam-pine forest, on dead trunk of *Quercus petraea*, 14 Jun. 2011 leg. et det. JB (herb. JB11/93); ibid., at the base of the left bank slope overlooking the River Dyje, humous oak-hornbeam forest, on decaying trunk of *Quercus cf. petraea*, 15 Jun. 2011 not. JB. — Břežník (distr. Třebíč), Údolí Oslavy a Chvojnice NR, place known as “Kančí žlábek” above the left bank of the Oslava river, oak-hornbeam forest, on hollow, windthrown trunk of *Quercus petraea* (50 cm in diam.), 3 Jul. 2016 leg. et det. DD (160703-12). — Ibid., place known as “Zlatá podkova”, oak forest on a rocky slope, hollow and broken fallen trunk of *Quercus petraea*, 3 Jul. 2016 not. DD. — Sedlec (distr. Třebíč), Údolí Oslavy a Chvojnice NR, in the ruin of Sedlecký hrad Castle, fallen branch of *Quercus petraea* (20 cm in diam.), last-year’s dead fruit-body, 4 Aug. 2016 not. DD. — Lhánice (distr. Třebíč), Mohelnická NR, dry oak forest with *Festuca ovina* on a sunny slope, on the base of living *Quercus petraea*, 24 Sept. 2015 leg. et det. DD (herb. DD 150924-20). — Podyjí NP, Vranov nad Dyjí (distr. Znojmo), “Braitava” forest, north-facing slope over the Dyje valley, oak-hornbeam forest with admixture of beech, on decaying trunk of *Quercus petraea*, 31 Jul. 2012 leg. et det. JB (herb. JB12/383). — Drahanská vrchovina Uplands, Sivice (distr. Brno-venkov), Sivický les Forest NW of the village, slope above cement works, thermophilous oak-hornbeam forest on calcareous bedrock, in cavity at the base of living *Quercus petraea*, 16 Jul. 2007 not. J. Musil, det. DD ; ibid., 26 Aug. 2007 not. DD. — Moravský kras PLA, Bílovice nad Svitavou (distr. Brno-venkov), Hádecká planinka NNR, slope above the River Svitava, thermophilous oak-hornbeam forest, on mossy fallen trunk of *Quercus* sp. (20 cm in diam.), 23 Jul. 2011 leg. et det. DD (herb. DD 67/11); ibid., at margin of young linden forest, old stump of *Quercus* sp. (40 cm in diam.), 18 Jul. 2013 leg. et det. DD et JB (herb. DD 130718-14). — Bobravská vrchovina Uplands, Střelice (distr. Brno-venkov), “Střelický les” forest SE of the village, oak forest, at the base of living *Quercus* sp., 22 Jul. 2012 not. Petr Pařil, det. DD. — Dyjskošvratecký úval Dell, Šanov (distr. Znojmo), Karlov NM, oak-hornbeam forest, on decayed stump of *Quercus* sp., 3 Sept. 2012 leg. et det. JB (herb. JB12/566). — Dolnomoravský úval Dell, Valtice (distr. Břeclav), Rendezvous NNM, thermophilous oak forest with *Quercus cerris*, on large decaying tree of *Quercus* sp., 30 Jun. 2010 not. DD & JB; ibid., on *Quercus* sp., 11 Aug. 2010 leg. L. Straka, det. DD (herb. DD 234/10); ibid., fragment of dead trunk of *Quercus* sp., 12 Aug. 2010 not. JB; ibid., on large, decaying tree of *Quercus* sp., 16 Sept. 2013 not. JB; ibid., at the base of *Quercus* sp. snag, 30 Aug. 2014 not. JB.

**Remarks.** Unmistakeable annual polypore exclusively restricted to the wood of oak, producing brown rot of the heartwood of both living and dead trunks; sometimes also occurs on large, fallen branches. In Czechia, it is found mainly in dry thermophilous oak forests (regardless of the type of bedrock), but also on large, old oaks in lowland floodplain forests and man-made plantations, particularly on the earthworks used to dam commercial fishponds. Most localities are concentrated in central and south Bohemia and in southern Moravia (KOTLABA & POUZAR 1966, KOTLABA 1984); the fungus only rarely occurs in other regions (e.g. W Bohemia; KOUT & VLASÁK 2011). Our collections were made in the period between early June and late September with most records in July, which tallies with other observations both from Czechia (KOTLABA 1984) and beyond its borders (ROBERTS 2002, KARASIŃSKI & WÓLKOWYCKI 2015). The independence of the genera *Piptoporus* and *Buglossoporus* has been supported by a thorough molecular study made by HAN *et al.* (2016).

***Byssoporia terrestris* (DC.) M.J. Larsen & Zak (RL: DD) (Fig. 7)**

**Material examined.** **Moravia.** Žulovská pahorkatina Downs, Žulová (distr. Jeseník), Borový NNM, Borový Hill NE of the village, on decaying branch of *Fagus*, 18 Oct. 2013 leg. et det. JB & DD (herb. DD 131018-11, herb. JB13/1597).

**Remarks.** Inconspicuous resupinate polypore with very similar appearance to poroid *Trechispora* species (mainly the common *T. hymenocystis* (Berk. & Broome), K.H. Larss. also very similar to them in mode of growth, underneath and in cavities in heavily-rotted wood. In the Czech Red List, the species is assessed under the name *Byssocorticium terrestris*. However, more recent studies have revealed that it is not closely related to members of the genus *Byssocorticium* and belongs in the vicinity of the genus *Albatrellus* (LARSSON 2007). Both genera, however, share an ectomycorrhizal trophic life-style (TEDEROO *et al.* 2010). We are not aware of any earlier collection of this species from the region of Moravia.

***Ceriporiopsis balaenae* Niemelä (RL: CR) (Fig. 8)**

**Material examined.** **Bohemia.** Třeboňsko PLA, Staňkov (distr. Jindřichův Hradec), N bank of the Staňkovský rybník Pond SW of Nadějov Hill, wet undergrowth on the bank (*Pinus sylvestris*, *Betula pendula*, *Salix* sp. and others), on dead, attached branch of *Salix aurita*, 26 Sept. 2005 leg. DD, det. P. Vampola (herb. DD 334/05); *ibid.*, branch of *Salix* sp., 2 Oct. 2006 leg. et det. DD (herb. DD 376/06).

**Remarks.** Rare resupinate polypore, confined to wet forests with *Salix* or *Populus* (KOTLABA *et al.* 2006c). The locality mentioned above is one of the two appearing in Czech Red List (HOLEC & BERAN 2006). The taxonomy of the genus *Ceriporiopsis* is quite complicated and still far from resolved. Another taxon, viz. *Ceriporiopsis consobrina* (Bres.) Ryvarden, in Europe occurring mainly in the Mediterranean, has been shown to have identical sequences (both in ITS and nLSU regions) as those of European collections of *C. balaenae* (TOMSOVSKÝ *et al.* 2010a). Moreover, the same authors demonstrated that North American populations of *C. balaenae* (on which the name of the taxon is based) constitute a very close, yet distinct, taxon, differing from the European fungus labelled as *C. balaenae*. Morphologically, the two fungi are very similar. Thus, *C. consobrina* is accepted by some authorities (RYVARDEN & MELO 2014) as the correct name for the fungus previously labelled *C. balaenae* in Europe. Recently, both *C. consobrina* and *C. balaenae* have been combined as two varieties (with small morphological differences) of *C. consobrina* into *Niemelaea*, a genus newly erected on the basis of morphological studies (ZMITROVICH *et al.* 2015). However, the contrasting habitats of the two taxa introduce a degree of uncertainty. The name *C. balaenae* is therefore employed herein for the fungus growing on *Salix* spp. in wet thickets in central and northern Europe. Several other localities featuring such habitats were presented by Zíbarová (2017; as *C. consobrina*).

***Chaetoporellus latitans* (Bourdot & Galzin) Bondartsev & Singer**

ex Singer (RL: CR)

(Fig. 9)

= *Hypodontia latitans* (Bourdot & Galzin) Ginns & M.N.L. Lefebvre

**Material examined.** Moravia. Žďárské vrchy PLA, Cikháj (distr. Žďár nad Sázavou), Žákova hora NNR, western part, decaying trunk of *Fagus*, 1 Sept. and 2 Oct. 2015 leg. et det. DD & JB (herb. JB15/1568, DD Žák26/4, Žák26/5).

**Remarks.** Extremely rare species, in Czech territory collected only once in 1994 in Vsetínské vrchy Hills (VAMPOLA & VÁGNER 1995, KOTLABA *et al.* 2006d) on *Fagus*. RIPKOVA & HAGARA (2003) presented six localities in southern and western Slovakia. The species colonizes a wide spectrum of substrata. RYVARDEN & MELO (2014) indicate conifers (particularly *Pinus*) as the most common host but all records from the territory of the former Czechoslovakia come from hardwood genera (*Acer* sp., *Acer negundo*, *Alnus glutinosa*, *Fagus*, *Salix euxina*, cf. *Ulmus laevis*). We cannot exclude the possibility that the species may be overlooked, since it resembles species of *Schizopora* (*S. radula* (Pers.) Hallenb., *S. paradoxa* (Schrad.) Donk) in its labyrinthine-to-split pores. The bicoloured trama of the tube walls (darker in the middle and paler near the surface) in *C. latitans*, cited as a factor to distinguish it from *Schizopora* species by VAMPOLA & VÁGNER (1995), were observed in our material as well. Microscopically, *C. latitans* is unmistakeable due to its combination of long, cylindrical, thin-walled cystidia and very narrow, allantoid spores.

***Coltricia cinnamomea* (Jacq.) Murrill (RL: EN)**

**Material examined.** Moravia. Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Maršava NM, northernmost segment of protected area, acidophilous oak-beech forest, on bare soil under *Fagus*, 15 Sept. 2010 leg. et det. JB (herb. JB10/1315).

**Remarks.** Rare species differing from small forms of common *Coltricia perennis* (L.) Murrill in its absence of erect, branched hyphae on the cap surface (tomentum) and also the shape and size of spores (see JAHN 1986). KOTLABA (1984) gives four localities from Moravia. To date, it has been found where fires have taken place or in spruce and oak forests; it probably favours soils with a higher carbon content (KOTLABA 1984). It has not yet been recorded from beech forests in Czechia.

***Dichomitus campestris* (Quél.) Domański & Orlicz (RL: NT)**

**Material examined.** Moravia. Bobravská vrchovina Uplands, Brno-Kohoutovice (distr. Brno-město), forest by Jírovcova Street, oak-hornbeam forest, on fallen branch of *Quercus* sp., 19 Oct. 2015 leg. ?, det. DD (BRNU 634669).

**Remarks.** Species only rarely recorded in southern Moravia; KOTLABA (1984) lists only three localities and we are aware of only one collection, from the city of Brno. Thin hardwood branches (especially those of *Quercus* spp. and *Corylus* spp. – KOTLABA l.c.) seem to be the favoured substrate, in similar fashion to *Tyromyces kmetii* (Bres.) Bondartsev & Singer.

**Dichomitus squalens (P. Karst) D.A. Reid (RL: CR)**

(Fig. 10)

**Material examined.** **Bohemia.** Žďárské vrchy PLA, Radostín (distr. Žďár nad Sázavou), Dářko NNR, at the margin of pine forest, on snag of *Pinus* sp., 31 May 2016 leg. P. Hrouda, det. DD (BRNU 634656). — **Moravia.** Jevišovická pahorkatina Downs, Nová Ves (distr. Brno-venkov), at the edge of the canyon of River Oslava, dry open forest (*Pinus sylvestris*, *Quercus petraea*) in a rocky place, on dead, standing *Pinus sylvestris*, 5 March 2017 not. DD (old, damaged and partly disintegrated fruiting bodies). — Drahanská vrchovina Uplands, Lelekovice (distr. Brno-venkov), near the red-marked tourist path, oak-pine forest on a stony outcrop, ca 2.5 m high on dead, standing *Pinus sylvestris*, VII–VIII. 2016 not. P.-J. Keizer. — Dolnomoravský úval Dell, Bzenec (distr. Hodonín), Vojenské cvičiště Bzenec NM, military training area c. 2.5 km SE of the railway station, open grassland with scattered pine trees, on stumps of *Pinus sylvestris*, 27 and 29 May 2009 leg. et det. DD (herb. DD 62/09, 64-66/09). — Ibid., place 4 km SWW of the railway station, at a margin of young pine plantation, on dying *Pinus sylvestris*, 29 Dec. 2014 leg. et det. P. Dřevojan, conf. DD (BRNU 638677). — Břeclav, forest complex Boří les, mixed forest, on freshly-fallen branch of *Pinus sylvestris* (10 cm in diam.), 26 Jun. 2013 leg. et det. DD (herb. DD 130626-09).

**Remarks.** Remarkable species with cream- to ochre-coloured glabrous pileal surface, small cream pores and rather soft context, which becomes remarkably horny-hard when dry (in similar fashion to *Osteina obducta* (Berk.) Donk. It has dichotomously branched vegetative hyphae, elongate spores and produces white rot (ANTONÍN *et al.* 1995, RYVARDEN & MELO 2014). *Dichomitus squalens* is very rare in Czech territory, published from only four localities to date. The two older records from the first half of the 20th century (South Bohemia – Třeboň, South Moravia – Krumlovský les Forest; KOTLABA 1984) lack ecological details in both more recently published localities – Mohelno serpentine steppe (ANTONÍN *et al.* 1995) and open pine forest in Váté písky Sands NNM (BIEBEROVÁ 2003) – the species occurred on pine stumps. As well as in dry and warm localities on sandy soils (SE Moravia – surroundings of Břeclav and Bzenec) and dry pine(-oak) forests at the edges of steep river valleys (Jihlava and Oslava) or rocky outcrops (Babí lom), it has also been observed at the edge of raised bog (Dářko). Zíbarová (2017) found the species at a peat bog margin as well (Swamp NNR). All of these observations accord with KOTLABA (1984), who maintains that the species grows in the regions in which *Pinus* occurs naturally.

**Ganoderma cupreolaccatum (Kalchbr.) Z. Igmandy**

(Fig. 11)

= *Ganoderma pfeifferi* Bres.

**Material examined.** **Moravia.** Křižanovská vrchovina Uplands, Lažánky (distr. Brno-venkov), Slunná NR, fenced part of reserve, old beech forest, at the base of two living *Fagus* trees, 24 May 2014 leg. et det. JB (herb. JB14/173). — Jevišovická pahorkatina Downs. Nové Syrovice (distr. Třebíč), Habrová seč NR, near-natural beech forest with admixture of hornbeam and linden, at the base of living *Fagus* and on its trunk c. 5 m above ground, 5 Oct. 2013 leg. et det. JB et DD (herb. JB13/1338); ibid., at the base of *Fagus* snag, 30 Jun. 2015 not. JB. — Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Holý kopec NR, northern part of protected area, at the base of *Fagus* snag, 24 Jul. 2012 leg. et det. JB (herb. JB12/307). — Opavská pahorkatina Downs, Opava (distr. Opava), in the grounds of the psychiatric hospital in Olomoucká Street, park, at the base of big, old, living *Fagus* tree, 24 Oct. 2009 not. J. Halfar, det. DD.

**Remarks.** Species easily distinguished in the field by thick, yellowish, resinous-waxy layer covering the pileal cutis and very dark context. PAPP & SILLER (2012) drew attention

to the little-known and unused name *Ganoderma cupreolaccatum* (Kalchbr.) Z. Igmandy., which is based on the first description of the species (*Polyporus cupreolaccatus* Kalchbr. in Öst. bot. Z. 1885) which should have priority over Bresadola's commonly-used name. Although the synanthropic character of the distribution of this rare species attracts some attention (e.g. KOTLABA 1984), it seems that preserved beech forests serve as its primary habitat, at least in the Carpathians, as demonstrated for example from Slovakia (GÁPEROVÁ 2001) and Hungary (PAPP & SZABÓ 2013). It is possible that at the lower altitudes where its main host (*Fagus*) is absent, the fungus searches for habitats with plenty of old beeches or other deciduous trees. (RYVARDEN & MELO 2014 report the genera *Aesculus*, *Acer*, *Fraxinus*, *Prunus*, *Quercus* and *Ulmus*) as other host species, often found in parks or botanical gardens. At higher elevations, however, the species strongly favours natural forests and may be used for evaluation of preserved beech forests, as reported by CHRISTENSEN *et al.* (2004). In southern Moravia, the species is clearly rare and, outside our own collections, we are aware of only the finding from Ranšpurk NNR, where it was collected in 2005 on *Carpinus* (VLASÁK 2015). The occurrence of the species in Holý kopec Hill NR has already been mentioned by CHMELAŘ *et al.* (2008).

***Gelatoporia subvermispora* (Pilát) Niemelä (RL: CR) (Fig. 12)**

**Material examined. Moravia.** Křižanovská vrchovina Uplands, Lažánky (distr. Brno-venkov), Slunná NR, fenced part of reserve, old beech forest, in the cavity and on the underside of heavily decayed trunk of *Fagus*, 7 May 2015 leg. et det. JB (herb. JB15/35); ibid., 29 Aug. 2015 leg. et det. J Běťák (herb. JB15/610); ibid., 13 Oct. 2016 leg. et det. JB (herb. JB16/479). — Drahanská vrchovina Uplands, Bukovina (distr. Blansko), Rakovec NR, fragment of old public-access beech forest, on heavily decayed (DS IV) trunk of *Fagus*, 30 Aug. 2013 leg. et det. JB (herb. JB13/801). — Vranov (distr. Brno-venkov), Coufavá NR, near the W margin of the area, mixed beech-fir forest, on fallen trunk of *Abies alba*, 10 Nov. 2008 leg. et det. DD, conf. 15.05.2009 P. Vampola (herb. DD 890/08); ibid., middle part of the area, large fallen trunk of *Fagus*, 27 Sept. 2011 leg. et det. DD (BRNU 634670); ibid., near N margin of the reserve, on fallen trunk of *Abies alba*, 3 May 2017 leg. et det. JB (herb. JB 17/25). — Moravský kras PLA, Blansko-Arnostov (distr. Blansko), Vývěry Punkvy NNR, Punkevní údolí Valley, near the left bank of Punkva river, beech forest with admixed *Abies alba*, *Carpinus* and *Fraxinus excelsior*, on fallen trunk of *Abies alba*, 31 Jul. 2006 leg. et det. DD, conf. 7.8.2006 P. Vampola (herb. DD 90/06); ibid., 9 Aug. 2006 leg. DD et M. Tomšovský, det. DD (herb. DD 95/06). — Ibid., Pustý žleb Gorge, on the slope above the forest road, mixed forest (*Picea*, *Abies alba*, *Fagus*), on fallen trunk of *Abies alba* (together with *Mucronella* cf. *calva* (Alb. & Schwein.) Fr. and *Skeletocutis odora* (Peck ex Sacc.) Ginns), 21 Oct. 2006 leg. DD, L. Edrová, JB et J. Holeč, det. DD, 14 May 2009 conf. P. Vampola (herb. DD 456/06 = BRNU 592909). — Blansko-Lažánky, Vývěry Punkvy NNR, Lažánecký žleb Gorge, mixed forest, on fallen conifer trunk, 13 Jul. 2011 leg. et det. DD (herb. DD 56/11). — Vilémovice (distr. Blansko), Vývěry Punkvy NNR, near the E edge of propast Macocha Chasm, mixed forest (*Picea*, *Abies alba*), heavily decayed fallen conifer trunk (*Abies alba/Picea*, 30 cm in diam.), 7 Jun. 2013 leg. et det. DD (herb. DD 130607-05). — Habrůvka (distr. Blansko), Habrůvecká bučina NNR, old beech forest, moderately decayed fallen trunk of *Fagus* (50 cm in diam., DS III-IV), 20 Sept. 2012 leg. et det. DD (herb. DD 120920-16, 120920-25). — Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Holý kopec Hill NR, north-western part of protected area, on heavily decayed trunk of *Fagus*, 17 Aug. 2014 leg. et det. JB (herb. JB14/386). — Beskydy PLA, Dolní Lomná (distr. Frýdek-Místek), Mionší NNR, eastern slope of "Velká Polana" (near the hunting lodge), large fallen trunk of *Abies alba*, 10 Sept. 2015 leg et det. DD (herb. DD 150910-01).

**Remarks.** Striking resupinate polypore, whitish or yellowish when fresh and with narrow, tomentose, sterile margin. Tube walls are yellowish in dry state, and strikingly

contrast with the pure white pore mouths, a result of rich encrustation of the terminal parts by dissepiment hyphae. The majority of records come from the wood of *Abies alba*, and the fungus appears to favour quite heavily decayed wood. The fruiting bodies are often quite delicate and thin, and disappear quickly. However, they may also be quite large and thick, bearing a very close resemblance to *Skeletocutis odora*, as also noted by VAMPOLA & VLASÁK (1992). However, *G. subvermispora* does not usually have the watery-waxy appearance of the latter and lacks smell. Both species may even grow on the same trunk (e.g. coll. DD 456/06). For several years, the first author pointed out fruiting bodies of *S. odora* on a big *Fagus* trunk in Coufavá NR during excursions for students. On one of the occasions, the fruiting body lacked the typical smell, and was hence labelled as “strange *S. odora* without smell”. Only subsequent microscopic examination revealed that it was a well-developed *Gelatoporia subvermispora*, which was growing on exactly on the same spot as fruiting bodies of *S. odora* had done in previous years.

*G. subvermispora* is rare species in Czech territory, first published only from the locality above (VAMPOLA & VLASÁK 1992) accompanied by thorough macro- and microscopic description. Later, it was found in its only locality in Bohemia in the River Vltava valley (near Zlatá Koruna; KOUT & VLASÁK 2009). Our records presented here and also previous collections (Bítov – U douthné skály NR, Vranov n. Dyjí – Ledové sluje; BĚŤÁK 2015) have disclosed quite rich occurrence of the species in near-natural forests on the eastern edge of the Bohemian massif, especially in deep valleys. The finding from Mionší NNR is the first from the well-known old-growth Carpathian forests in the Czech Republic.

#### *Inocutis dryophila* (Berk.) Fiasson & Niemelä

= *Inonotus dryophilus* (Berk.) Murrill

**Material examined. Moravia.** Jevišovická pahorkatina Downs, Sedlec (distr. Třebíč), Údolí Oslavy a Chvojnice NR, c. 2.5 km SEbE of the church in the village, near the forest path from the “U Glorietu” viewpoint down to Oslava valley, oak-hornbeam forest, on living *Quercus* sp. (c. 10 m up the tree), previous year’s dead fruiting body, 18 Mar. 2015 not. JB et DD. — Lhánice (distr. Třebíč), Mohelnická NR, thermophilous oak forest on a steep slope, within the wound left by a broken branch on living *Quercus petraea*, 24 Sept. 2015 leg. et det DD (herb. DD 150924-19). — Velká skála NR, open rocky slope with scattered oak trees, on thick branch (25 cm in diam.) of dying *Quercus petraea*, 12 Jul. 2010 leg. et det. DD (herb. DD 130/10). — Boskovická brázda, Moravský Krumlov (distr. Znojmo), Krumlovsko-rokytenské slepence NNR, on fallen branch of *Quercus* sp. (20 cm in diam.), 1 Jul. 2004 leg. DD, det. A. Vágner (herb. DD 34/04). — Moravský kras PLA, Rudice (distr. Blansko), Rudické propadání NNR, mixed forest in a ravine, on large, old, living *Quercus* sp. (dead fruiting body), 29 Sept. 2013 not. DD. — Moravská brána, Ostrava-Svinov (distr. Ostrava), Polanský les NR, floodplain forest, on wood of unknown tree (presumably *Quercus* sp.), 17 Oct. 2009 leg. et det. ? (herb. DD 532/09).

**Remarks.** Although not included in the Red List of Macromycetes (HOLEC & BERAN 2006), our experience indicates that the species is quite rare. It occurs in similar sites as *Buglossoporus quercinus* and often emerges quite early in the season as well. It tends, however, to be more restricted to living trees than the latter.

*Jahnoporus hirtus* (Quél.) Nuss (RL: CR)

(Fig. 13)

**Material examined.** Moravia. Žulovská pahorkatina Downs, Žulová (distr. Jeseník), Borový NNM, Borový Hill NE of the village, NE slope, old acidophilous beech forest on granite bedrock, on heavily decayed stump of coniferous tree (*Abies alba/Picea*), 22 Aug. 2013 leg. et det. DD (herb. DD 130822-25).

**Remarks.** Extremely rare lignicolous species, the locality near Žulová being only the third recorded in Czech territory. The first comes from natural mixed forest in Polom NNR in the Železné hory Mts. (ANTONÍN *et al.* 1989), the second was discovered only recently in a near-natural forest complex north of Hluboká nad Vltavou (VLASÁK & KOUT 2010). The habitat of our finding on Borový vrch Hill is also old forest with, however, only a limited amount of dead wood and only rarely occurring conifer trees. The exact place in which the find was made is covered in a young lime-hornbeam stand with several old *Fagus*, *Tilia* sp. and *Carpinus* trees. It cannot, therefore, be characterized as natural forest.

*Loweomyces wynneae* (Berk. & Broome) Jülich (RL: CR)

(Fig. 14)

= *Antrodiella wynneae* (Berk. & Broome) Spirin  
= *Tyromyces wynneae* (Berk. & Broome) Donk

**Material examined.** Moravia. Moravský kras PLA, Březina (distr. Brno-venkov), U Výpustku NR, bottom of the Křtinské údolí Valley, undergrowth of broadleaved trees (*Acer pseudoplatanus*, *Corylus avellana*, *Ulmus glabra*), on the ground and on bases of small stumps, 31 Oct. 2008 leg. et det. DD, conf. 15 May 2009 P. Vampola (herb. DD 846/08). — Dolnomoravský úval Dell, Strážnice (distr. Hodonín), near the bank of Velička river c. 3 km NW of the railway station, ash stand, on the litter among *Urtica dioica* plants near the base of drying *Fraxinus* sp., 8 Aug. 2016 leg. D. Palovčíková, det. M. Tomšovský (BRNU 634666). — Slovakia. Bílé Karpaty, Vršatské Podhradie (distr. Ilava), in the valley under Chmelová mountain, c. 350 m NE of the summit, nutrient-rich unmanaged beech forest with admixed *Fraxinus excelsior* and *Acer platanoides*, on fallen bark of *Fagus*, 1 Sept. 2005 leg. DD, det. P. Vampola (herb. DD 254/05).

**Remarks.** Extremely rare polypore, occurring in only a few countries in Europe (RYVARDEN & MELO 2014). It is distinctively characterised by its combination of resupinate to pileate ochre-yellowish fruiting bodies with small pores, thick yellowish rhizomorphs and occurrence on soil or on woody debris closely connected with the soil surface. Three localities known from Czech territory are discussed by KOTLABA (1991). All of them lie in warm, lowland areas and comprise habitats strongly influenced by human activities – more or less ruderalized, with the presence of plant species such as *Urtica dioica*, *Robinia pseudacacia* and *Sambucus nigra*. The two new localities presented here are of very similar character. Sometimes the species is also found in quite unspoilt habitats, such as unmanaged beech forests (e.g. one collection from Suserup Skov in Denmark – HEILMANN-CLAUSEN 2001). We have found *Loweomyces wynneae* in this type of habitat in Slovakia and this collection is probably only the second published record for that country. The generic name *Loweomyces* is used here in the light of recent molecular studies (MIETTINEN *et al.* 2012, WESTPHALEN *et al.* 2016).

***Osteina obducta* (Berk.) Donk (RL: EN)**

**Material examined.** Moravia. Jeseníky PLA, Bedřichov u Oskavy (distr. Šumperk), between Bedřichovská hájovna hut and ruin of Rabštejn Castle, beech forest, on conifer stump (probably *Larix*), 6 Jul. 2007 leg. et det. Dvořák (herb. DD 75/07). — Hornosvratecká vrchovina Uplands, Lysice (distr. Blansko), Lysická obora NR, by the forest road in the valley of Lysický potok Brook, near the SW border of the reserve, margin of young pine stand, on conifer stump (*Larix/Pinus sylvestris*), 28 Oct. 2006 leg. et det. DD (herb. DD 463/06); ibid., (49°27'23.933"N, 16°31'15.292"E), mixed forest, on stump of *Picea*, 15 Aug. 2012 leg. et det. JB (herb. JB12/401). — Podyjí NP, Čížov (distr. Znojmo), lower part of the valley of Klaperův potok Brook, on decaying stump of *Larix* in stream aluvium, 28 Aug. 2012 not. M. Kříž. — Bílé Karpaty PLA, Strání (distr. Uherské Hradiště), c. 3 km NW of the top of Velká Javořina Mt., by the forest road in mixed forest, on root of living *Larix*, 31 Aug. 2005 leg. et det. DD (herb. DD 233/05); ibid., valley of the Velička Brook c. 3 km NWbW of the top of Velká Javořina Mt., young beech stand, on cut surface of rotting stump of *Larix*, 31 Aug. 2005 leg. et det. DD (herb. DD 245/05). — Javorník nad Veličkou (distr. Hodonín), Filipovské údolí Valley c. 1 km SE of the village, mixed forest (substrate unknown), 21 Sept. 2010 leg. P. Hrouda, det. DD (BRNU 634065).

**Remarks.** Striking species of pileate polypore with whitish fruiting bodies; typically undulate-wavy margins, becoming very hard with drying. It is often found on the cut surfaces of conifer stumps and seems to favour the wood of *Larix*. Most of the collections originate from the eastern part of the country, mainly from Carpathians (see also KOTLABA 1984).

***Perenniporia fraxinea* (Bull.) Ryvarden (RL: EN)**

(Fig. 15)

**Material examined.** Moravia. Bobravská vrchovina Uplands, Brno-Králové Pole (distr. Brno-město), an urban plantation on Berkova Street, on side of a big stump of *Corylus colurna*, 2005 leg. et det. DD (herb. DD 470/05). — Dolnomoravský úval Dell, Nové Mlýny (distr. Břeclav), Křivé jezero NNR, floodplain forest, at the base of big living *Populus alba*, 16 Jun. 2011 leg. et det. DD (herb. DD 35/11). — Lednice (distr. Břeclav), near the Janův hrad castle ruin, at the forest margin, on fallen trunk of *Populus* cf. *alba*, 1 Apr. 2005 leg et det. DD (herb. DD 3/05).

**Remarks.** Rare species, more or less confined to floodplain forests in Czech territory, but sometimes also occurs in parks, avenues and on roadside verges (KOTLABA 1984). Although has been observed on many hardwood genera, *Corylus colurna* appears to be a new addition (KOTLABA 1984, RYVARDEN & MELO 2014). Our collection from Janův hrad is the one mentioned by KOTLABA *et al.* (2006e).

***Perenniporia medulla-panis* (Jacq.) Donk (RL: EN)**

**Material examined.** Moravia. Žulovská pahorkatina Downs, Žulová (distr. Jeseník), on the top of Boží hora Hill E of the village, on the side of a wooden bench (*Quercus* sp.), 18 Oct. 2013 leg. et det. DD (herb. DD 131018-10). — Podyjí NP, Podmolí (distr. Znojmo), permanent plot of the Silva Tarouca "Lipina" Research Institute c. 3.6 km SSE of chapel in the village, old oak forest, on dead trunk of *Quercus petraea*, 6 Jun. 2016 leg. et det. JB (herb. JB16/132).

**Remarks.** Probably quite rare species, growing almost exclusively on dead oak wood. KOTLABA (1984) reports the only locality from South Moravia as the Rokytná river valley. According to SPIRIN *et al.* (2005), the species probably favours oak stands with

plenty of dead wood, but may also occur in anthropogenic habitats, as confirmed by our finding from Žulová.

***Perenniporia meridionalis* Decock & Stalpers** (Fig. 16)

**Material examined.** Moravia. Litčická pahorkatina Downs, Nevojice (distr. Vyškov), Malhotky NNR, thermophilous forest edge, on dead branch of *Quercus* sp., 30 May 2014 leg. et det. JB (herb. JB14/188). — Dolnomoravský úval Dell, Bzenec, Vojenské cvičiště NM, on a fallen branch of *Pinus sylvestris* on open sand dune, 4 Oct. 2016 leg. et det. R. Maňák, rev. JB (herb. R. Maňák).

**Remarks.** Thermophilous species usually growing on dead oak wood. In the past, it used to be identified by most authors as *Perenniporia tenuis* var. *tenuis* which is, however, an American species and does not occur in Europe (see NIEMELÄ *et al.* 1992, DECOCK & STALPERS 2006). The closely related *Perenniporia medulla-panis* differs in its slightly smaller pores and microscopically in its distinctly smaller spores and somewhat broader skeletal hyphae, with amyloid reaction in the lumen. For more detailed comments on the distinguishing characters between these species, see DECOCK & STALPERS (2006). The occurrence of the species on conifer wood (*Pinus sylvestris*) appears to be very unusual.

***Phellinidium pouzarii* (Kotl.) Fiasson & Niemelä (RL: CR)** (Fig. 17)

= *Phellinus pouzarii* Kotl.

**Material examined.** Moravia. Beskydy PLA, Bílá (distr. Frýdek-Místek), Bumbálka, Salajka NNR, natural mixed mountain forest, on two big fallen trunks of *Abies alba*, 6 Jun. 2009 and 22 May 2010 leg. et det. H. Deckerová (herb. H. Deckerová). — Horní Lomná (distr. Frýdek-Místek), Mionší NNR, on W slope of Mionší vrch Hill, unmanaged old beech-fir forest, on cut surface of a fallen trunk of *Abies alba*, 8 Oct 2015 leg. et det. JB (herb. JB15/1350).

**Remarks.** Very rare, *Abies*-associated species, with unmistakeable penetrating “chemical” smell. It seems to be restricted to old-growth forests within the natural range of *Abies alba* and *A. nordmanniana* in Europe and the Caucasus. In North America and Asia, two closely related, hardwood-associated species with similar smell occur: *P. fragrans* (M.J. Larsen & Lombard) Nuss and *P. asiaticum* Spirin, L.W. Zhou et Y.C. Dai (ZHOU *et al.* 2014). The description of *P. pouzarii* was based on a type specimen from Mionší NNR (KOTLABA 1968) and our find is, to our knowledge, the first from the type locality since the original collection. The species had not been found before in Salajka NNR. Within Czech territory beyond these two Moravian localities, it is known only from Boubínský and Žofínský prales in south Bohemia. Judging from the frequent occurrence on cut surfaces of freshly fallen trunks (see e.g. HOLEC *et al.* 2015), the mycelium of this species is probably already present in standing trees.

***Phellinus lundellii* Niemelä (RL: VU)** (Fig. 18)

**Material examined.** Moravia. Jeseníky PLA, Malá Morávka (distr. Bruntál), Praděd NNR, tortuous birch thicket at the bottom of Velká Kotlina glacier cirque, horizontal part of living trunk of *Betula carpatica*, 12 Oct. 2008 leg. et det. DD (herb. DD 673/08, 675/08).

**Remarks.** Rare boreal-montane species, more or less restricted to *Betula* spp., which may develop both pileate and resupinate fruiting bodies. In Czech territory, it has previously been published only from Šumava Mts., where it grows predominantly at peat-bog margins (TOMŠOVSKÝ 2002), and also from the Giant Mts. (KOTLABA *et al.* 2006f, ZÍBAROVÁ 2017). It was not known from Moravia until this collection.

***Phellinus rhamni* (Bondartseva) H. Jahn (RL: CR)**

(Fig. 19)

**Material examined.** Moravia. Jevišovická pahorkatina Downs, Mohelno (distr. Brno-venkov), Mohelenská hadcová step NNR, western part behind the road from the village to the dam, open pine forest with *Frangula alnus* underbrush, on living and dead standing stems of *Frangula alnus*, 12 May 2013 leg. et det. JB (herb. JB13/180, JB13/181); *ibid.*, 12 Jun. 2013 leg. et det. DD (herb. DD 130612-24). — Lhánice (distr. Třebíč), Velká skála NR c. 1.5 km SE of the village, at margin of an open scree, on a snag of old *Rhamnus cathartica*, 12 Jul. 2010 leg. et det. DD, conf. 15 March 2011 P. Vampola (herb. DD 127/10). — Pálava PLA, Pavlov (distr. Břeclav), Děvín-Kotel-Soutěška NNR, SE slope of Děvín Hill c. 1 km SW of the village, thermophilous thicket, on old living *Rhamnus cathartica*, 10 May 2013 leg. et det. DD (herb. DD 130510-22).

**Remarks.** Rare thermophilous resupinate species, favouring the wood of *Rhamnus*. The reddish-coloured wood resulting from infection by this species (RYVARDEN & MELO 2014) is not a particularly reliable character, since healthy *Rhamnus* wood is pinkish-reddish as well. Mohelenská hadcová step NNR was the only Moravian locality previously known (KOTLABA 1984), so our collections constitute the second and third localities in Moravia and *Frangula alnus* a previously unrecorded substrate.

***Podojomes trogii* (Fr.) Pouzar (RL: CR)**

**Material examined.** Moravia. Moravský kras PLA, Vývěry Punkvy NNR, Pustý žleb Gorge, on the slope above the forest road N of the site known as “Skalní mlýn”, mixed forest (*Picea*, *Abies alba*, *Fagus*), on bared root of rotten conifer stump (presumably *Abies alba*), 10 Oct. 2008 leg. A. Lucas, det. DD et M. Ainsworth (herb. DD 621/08). — Křtiny (distr. Blansko), between Křtiny and Jedovnice by the right bank of Křtinský potok Brook, in fir forest (*Abies alba*), 16 Oct. 1955 leg. J. Špaček, det. F. Kotlaba (BRNU 635347).

**Remarks.** Apparently very rare species, only seldom collected. It is probably a specialist, growing from roots of *Abies alba*, preferably at lower altitudes. Our record from Vývěry Punkvy NNR is a re-collection on an already-known locality (KOTLABA *et al.* 2006g). The older record from Křtiny was probably not mapped by KOTLABA (1984).

***Porothelium fimbriatum* (Pers.) Fr. (RL: CR)**

(Fig. 20)

**Material examined.** Moravia. Rychlebské hory, Supíkovice (distr. Jeseník), Na Špičáku NNM, old beech forest on chalk, on the underside of fallen branch of *Fagus* (10 cm in diam.), 29 May 2013 leg. et det. DD (herb. DD 130529-36); *ibid.*, fallen trunk of *Acer platanoides* (25 cm in diam.), 2 Oct. 2013 leg. et det. DD (herb. DD 131002-27); collections from this locality were already published, but without details (DVOŘÁK & DECKEROVÁ 2017, as *Stromatoscypha fimbriata*). — Jevišovická pahorkatina Downs, Kladeruby nad Oslavou (distr. Třebíč), Údolí Oslavy and Chvojnice NR, near-natural beech forest on the northern slope of Oslava valley, SE of the “Vlčí kopec” chateau, on decaying trunk of *Fagus*, 16 Oct. 2016 leg. et det. JB (herb. JB15/1794); *ibid.*, on another decaying trunk of *Fagus*, 8 Nov. 2016 leg. et det. JB (herb. JB16/559). — Podyjí NP, Vranov nad Dyjí (distr. Znojmo), c. 2.3 km SE of Bratava Castle forest, on the gentle slope of Býčí hora Hill close to the

forest road to the Braitava summer-house, near-natural oak-hornbeam forest, on decaying branch of *Tilia* sp., 23 Jun. 2013 leg. et det. JB (herb. JB13/664); ibid., c. 300 m WNW of Braitava summer-house, old beech forest with linden, hornbeam and oak on decaying trunk of *Fagus* (50 cm in diam.), together with *Mycocacia nothofagi* (G. Cunn.) Ryvarden and *Phlebia centrifuga* P. Karst., 10 Jun. 2014 leg. et det. JB (herb. JB14/247). — Čížov (distr. Znojmo), c. 2.8 km S of the church in the village, E of the sharp bend in the forest road to Hardegg, oak-hornbeam forest on marble bedrock, decaying trunk of *Tilia* sp. (25 cm in diam.), 12 Jun. 2014 leg. et det. JB (herb. JB14/307). — Moravský kras PLA, Suchdol (distr. Blansko), Vývěry Punkvy NNR, Pustý žleb valley, scree forest on chalk, fallen hardwood branches, 26 Aug. 2005 leg. DD, det. P. Vampola (herb. DD 178/05). — Březina (distr. Brno-venkov), U Výpustku NR, north-facing slope of Křtinské údolí Valley, mature beech forest, trunk of *Fagus* lying in pile of branches, 9 Jun. 2009 leg. et det. DD (herb. DD 90/09); ibid., 30 Jun. 2009 leg. et det. DD (herb. DD 125/09); ibid., beech forest with linden on scree, on the underside of heavily decayed trunk of *Tilia* sp. with bark, 30 Jun. 2009 leg. et det. DD (herb. DD 121/09). — Litenčická pahorkatina Downs, Pavlovice (distr. Vyškov), Ve žlebcách NR, c. 1 km NE of the church in the village, on a large fallen trunk of *Fagus* in near-natural oak-hornbeam forest, 22 Apr. 2017 leg. et det. JB (dead fruiting body from the previous year) (herb. JB17/21). — Chřiby Hills, Buchlovice (distr. Uherské Hradiště), Holý kopec NR, north part of the reserve, near-natural beech forest, on decaying trunk of *Fagus* (40 cm in diam.), 24 Jul. 2012 leg. et det. JB (herb. JB12/320). — Bílé Karpaty PLA, Sidonie (distr. Zlín), Sidonie NR, old beech forest, on fallen, thin trunk of *Fagus* (10 cm in diam.), 17 Aug. 2016 leg. et det. DD (herb. DD 160817-06).

**Remarks.** Unique resupinate species, easily recognizable by its strange pore development and conspicuous rhizomorphs, usually deeply penetrating into rotten wood or litter. Many records are from sites with calcareous soils. Another typical feature is its early occurrence (often May-June), which, together with the somewhat hidden fructification on the lower sides of branches and trunks, may lead to the species being overlooked. It appears to have no special substrate requirements, occurring on many hardwoods and less frequently on conifer species as well. Nevertheless, most of the records come from near-natural forests.

***Pouzaroporia subrufa* (Ellis & Dearn.) Vampola (RL: CR) (Fig. 21)**

**Material examined. Moravia.** Pálava PLA, Nové Mlýny (distr. Břeclav), Křivé jezero NNR, near-natural floodplain forest, on fallen trunk of *Populus ?canescens*, 22 Oct. 2011 leg. et det. DD (herb. DD 587/11). — Dolnomoravský úval Dell, Lednice (distr. Břeclav), chateau park, (48°47'52.806"N, 16°48'14.233"E), on decaying stump of *Aesculus hippocastanum*, 2 Mar. 2017 leg. et det. JB (herb. JB17/01).

**Remarks.** In Czech territory, this species was previously known only from well-preserved remnants of floodplain forests in southernmost Moravia (Ranšpurk NNR, Cahnov-Soutok NNR, Křivé jezero NNR); we have also confirmed it at the two latter localities during recent surveys. The somewhat surprising finding from a horse chestnut stump in the park in Lednice shows that the species is also able to survive on anthropogenically altered sites.

***Rhodofomes roseus* (Alb. & Schwein) Kotl. & Pouzar (RL: NT)**

= *Fomitopsis rosea* (Alb. & Schwein.) P. Karst.

**Remarks.** A single locality for the species in southern Moravia (Bítov, U doulné skály NR) was recently published elsewhere (BĚŤÁK 2015). Although VAMPOLA (2008a) mentions somewhat more frequent occurrence on wooden constructions in historical

buildings, this species is certainly highly endangered in Czech territory, with only a few stable populations in protected areas. For a more detailed commentary on historical and recent occurrence in the Czech Lands, see also KOUT & VLASÁK (2009). The generic status of *Rhodofomes* was supported by a detailed molecular study by HAN *et al.* (2016).

***Riopa metamorphosa* (Fuckel) Miettinen & Spirin (RL: CR) (Fig. 22)**

= *Ceriporia metamorphosa* (Fuckel) Ryvarden & Gilb.

**Material examined.** **Bohemia.** Lužické hory PLA, Horní Světlá (distr. Česká Lípa), Luž NR, fallen and decayed trunk of *Fagus*, 1 Aug 2010 leg. M. Kříž, det. Z. Pouzar (PRM921894, as *Ceriporia metamorphosa*). — **Moravia.** Dolnomoravský úval Dell, Lanžhot (distr. Břeclav), Ranšpurk NNR, natural floodplain forest, on very large, decaying trunk of *Quercus robur*, 24 May 2013 leg. et det. JB (herb. JB13/320); ibid., 30 Aug. 2015 leg. et det. JB (herb. JB15/613); ibid., 25 Sept. 2015 leg. et det. JB (herb. JB15/1569); ibid., on another trunk of *Quercus robur*, 27 Aug. 2015 leg. DD et J. Salaš, det. JB (herb. DD Ran22/1). — Podyjí NP, Podmolí (distr. Znojmo), permanent plot of Silva Tarouca “Lipina” Research Institute c. 3.6 km SSE of chapel in the village, old oak forest, on dead trunk of *Quercus petraea*, 30 Mar. 2016 leg. et det. JB (JB16/29, as *Ceriporia metamorphosa*).

**Remarks.** The genus *Riopa* was established by D.A. Reid in 1969 for *Riopa davidi*, which was later considered identical with *Ceriporia camaresiana* (Bourdotted & Galzin) Bondartsev & Singer., and therefore combined with the genus *Ceriporia* (RYVARDEN 1991). Since then, it has been incorrectly identified (as *Ceriporia davidi*) with new collections of a different species (PIERI & RIVOIRE 1997, RYVARDEN & MELO 2014), recently described as *Ceriporia pierii* (MIETTINEN *et al.* 2016). In the same paper, Reid’s generic name was re-established – the authors demonstrated that the type collection of *Riopa davidi* is identical with *Ceriporia metamorphosa* (described by Fuckel as *Polyporus metamorphosus* in 1874). The species in question is a member of a “phanerochaetoid” clade, phylogenetically distant from other *Ceriporia* species (MIETTINEN *et al.* 2016).

*Riopa metamorphosa* is confined primarily to rotting oak wood, very rarely also occurring on other hardwood species and genera (*Eucalyptus*, *Castanea*, *Juglans*, *Malus*, *Salix caprea*; RYVARDEN & MELO 2014, MIETTINEN *et al.* 2016). In Czech territory, it was previously known only from the Ranšpurk forest in southernmost Moravia, where it was first collected in 1988 (VAMPOLA & POUZAR 1996b; this collection was designated as epitype by MIETTINEN *et al.* 2016). KOTLABA *et al.* (2006b) reported the last previous collection on the same trunk in 2001. In 2015, we observed *Riopa metamorphosa* on this trunk again (where it has apparently been growing for almost 30 years) and also on another large fallen trunk of *Quercus robur*. The locality in Podyjí NP was discovered in 2015 and a further collection by Martin Kříž in Lužické hory has yet to be published; this was collected on *Fagus* wood, a new substrate for the species.

Fruiting bodies of *Riopa metamorphosa* are all characterised by distinctly amyloid subhymenial hyphae and the presence of conidia. The powdery anamorphic state of *Sporotrichum aureum* Link is bright ochre-yellow and resembles an imperfect stage of certain *Botryobasidium* species, such as *B. aureum* Parmasto and *B. simile* Pouzar & Hol.-Jech.

D. DVOŘÁK & J. BĚŤÁK

***Sanghuangporus pilatii* (Černý) Tomšovský (RL: EN)** (Fig. 23)

= *Phellinus pilatii* Černý

**Material examined.** Moravia. Pálava PLA, Nové Mlýny (distr. Břeclav), Křivé jezero NNR, near-natural floodplain forest, in the break of fallen trunk of *Populus alba/P.canescens*, 22 Oct. 2011 leg. et det. DD (herb. DD 601/11).

**Remarks.** Resupinate phellinoid species, restricted to *Populus alba* and *P. canescens* and apparently occurring in only a few European countries (RYVARDEN & MELO 2014). The bright yellow spore print is rarely seen in European *Phellinus* species and, together with the specific substrate, is highly diagnostic. Its unorthodox micromorphological (presence of anamorphic state) and molecular characteristics have led to its inclusion in the genus *Sanghuangporus* (TOMŠOVSKÝ 2015). Although collections of perfect fruiting bodies are rare, it is probably more widespread in southern Moravia, as indicated by the original work of ČERNÝ (1968), who cited several dozen localities in this region. Our collection confirms its long-established occurrence in Křivé jezero NNR.

***Spongipellis litschaueri* Lohwag (RL: CR)** (Fig. 24)

**Material examined.** Moravia. Jevišovická pahorkatina Downs, Podhradí nad Dyjí (distr. Znojmo), proposed Bau NM, c. 1 km NE of the chapel in the village, on the slope above right bank of the River Dyje, thermophilous oak forest passing into scree forest, on a snag of *Quercus petraea*, 30 May 2011 leg. et det. JB (herb. JB11/62). — Dolnomoravský úval Dell, Valtice (distr. Břeclav), forest known as “Boří les”, in the vicinity of Rendezvous NNM, oak forest, on living *Quercus cerris*, 30 Sept. 2011 leg. DD et J. Salaš, det DD (BRNU 628136); ibid., in a cavity of living *Q. cerris*, 12 Sept. 2015 leg. et det. J. Salaš (BRNU 651148). — Ibid., c. 5 km SEbE of railway station, N of railway to Břeclav, on large, decaying log of *Quercus* sp. in a fragment of old thermophilous oak forest, 30. Aug 2014 leg. et det. JB (herb. JB14/644).

**Remarks.** Very rare thermophilous species confined to old oak forests, growing on living as well as dead trunks, in Czech territory mostly of *Q. cerris* (KOTLABA 1984). In addition to the sites mentioned above, we have repeatedly observed the species within the Rendezvous NNM close to Valtice, a well-known locality. TOMŠOVSKÝ (2011) reports seven localities from Czech territory (apart from Holák Hill near Hluboká nad Vltavou, all are located in Moravia), most of them lying on steep slopes of deep river valleys. In Europe, the species has a distinctly southern distribution and it is probably not known from northern Europe. KARASIŃSKI & WOLEKOWYCKI (2015) mention one early collection by S. Domański from the Białowieża forest in Poland; this is, however, somewhat doubtful, since the spore size is intermediate between *S. delectans* and *S. litschaueri*.

***Spongipellis pachyodon* (Pers.) Kotl. & Pouzar (RL: CR)** (Fig. 25)

**Remarks.** The collection from Podyjí NP (Čížov, on a dead branch of *Quercus petraea*) has already been published by KOTLABA & POUZAR (2016), who also summarized all known localities from Czech territory. The discussed record is complemented here with a colour photograph. It is the second finding of this very rare species in Moravia and the first in South Moravia. Interestingly, it has not yet been found in the Carpathian part of

the country. From Slovakia, only two localities have been published (KOTLABA 1984, TOMŠOVSKÝ 2011).

***Trichaptum biforme* (Fr.) Ryvarden (RL: EN)**

(Fig. 26)

**Material examined.** **Moravia.** Křižanovská vrchovina Uplands, Lažánky (distr. Brno-venkov), Slunná NR, fenced part of reserve, old beech forest partly altered by wind calamity, on decaying branch of *Fagus*, 19 Sept. 2015 leg. et det. JB (herb. JB15/1035). — Jevišovická pahorkatina Downs, Kladeruby nad Oslavou (distr. Třebíč), Údolí Oslavy a Chvojnice NR, near-natural beech forest on the northern slope of Oslava valley, SE of the “Vlčí kopeč” chateau, on decaying trunk of *Fagus*, 16 Oct. 2016 leg. et det. JB (herb. JB15/1790); ibid., freshly-fallen trunk of *Fagus*, 8 Nov. 2016 leg. et det. JB (herb. JB16/562). — Podyjí NP, Hnanice (distr. Znojmo), upper part of Daníž valley, on dead trunks of *Alnus* and *Prunus avium*, 8 Jul. 2010 leg. et det. JB (herb. JB10/596). — Mašovice (distr. Znojmo), valley of Mašovický potok Stream close to the Andělský millhouse, on standing dead tree of *Populus tremula*, 30 Aug. 2012 leg. et det. JB (herb. JB12/472). — Vranov nad Dyjí (distr. Znojmo), Braťava forest c. 2.2 km SE of the castle, on decaying trunk of *Fagus* in beech-dominated broad-leaved forest, 10 Jun. 2014 leg. et det. JB (herb. JB14/256). — Podmolí (distr. Znojmo), natural oak forest known as “Lipina” c. 3.6 km SSE of the chapel in the village, on the upper edge of the steep slope above the River Dyje, decaying trunk of *Quercus petraea*, 30 Mar. 2016 not. JB. — Drahanská vrchovina Uplands, Bukovina (distr. Blansko), Rakovec NR, c. 3 km NNE of the church in the village, on decaying trunk of *Fagus* in fragment of old beech stand, 25 Aug. 2014 leg. et det. JB (herb. JB14/512). — Adamov (distr. Blansko), Jelení skok NR, on decaying trunk of *Fagus*, 13 Oct. 2009 leg. et det. JB (herb. JB09/39). — Vranov (distr. Brno-venkov), Coufává NR, trunk of ?*Fagus*, 14 Oct. 2010 leg. et det. DD (herb. DD 704/10); ibid., on several dead trunks of *Fagus*, 24 Mar. 2016 leg. et det. JB (herb. JB16/145); ibid., on dead trunk of *Prunus avium*, 13 Jun. 2016 leg. et det. JB (herb. JB16/270). — Moravský kras PLA, Habrůvka (distr. Blansko), Habrůvecká bučina NNR, SW part of the area, near natural beech forest on limestone, on fallen, partly decorticated trunk of *Fagus*, 3 Aug. 2010 leg. et det. DD (herb. DD 164/10); ibid., central part of reserve, on decaying branch of *Fagus*, 2 Jul. 2013 leg. et det. JB (herb. JB13/725); ibid., on fallen trunk of *Fagus*, 24 Nov. 2013 not. DD. — Bobravská vrchovina Uplands, Brno-Kníničky (distr. Brno-město), Rozdrojovická obora, fallen and fragmented trunk of *Fagus*, 9 Oct. 2016 leg. et det. DD (herb. DD 161009-03). — Brno-Žebětín (distr. Brno-město), in the valley of Vrbovec stream near the “Helenčina studánka” site, c. 2 km WNW of the chapel in the town, old beech forest, on fallen trunk of *Fagus*, 17 May 2017 leg. P. Hrouda et A. Prokešová, det. P. Hrouda (BRNU 634671). — Chřiby Hills, Koryčany (distr. Kroměříž), on slopes of the Zimová valley, c. 1.5 km S of the church in the village, on decaying trunk of *Fagus* in mixed forest, 14 Jul. 2008 leg. et det. JB (herb. JB-CH08/42). — Buchlovice (distr. Uherské Hradiště), Holý kopec NR, east part of the area, on fallen trunk of *Fagus* in open beech forest, 5 Oct. 2008 leg. et det. DD (herb. DD 550/08); ibid., southern hillside of nature reserve, on fallen trunk of *Quercus* sp. with bark, 13 May 2010 leg. et det. JB (herb. JB10/189); ibid., on fallen trunk of *Fagus* in open beech forest, 25 Apr. 2010 leg. et det. JB (herb. JB10/34). — Buchlovice (distr. Uherské Hradiště), Makovica NM, on decaying branch of *Fagus* in beech stand, 21 Oct. 2010 not. JB. — Buchlovice (distr. Uherské Hradiště), Maršava NM, on dead trunk of *Fagus* in acidophilous beech forest, 5 Aug. 2011 not. JB. — Břestek (distr. Uherské Hradiště), Břestek skála NM, on decaying trunk of *Fagus* in oak-beech forest, 19 Apr. 2011, leg. et det. JB (herb. JB11/20). — Salaš (distr. Uherské Hradiště), Máchova dolina NM, decaying branch of *Fagus* in acidophilous beech forest, 27 May 2010 not. JB. — Ibid., Nazaret NM, on fallen trunk of *Fagus* in beech stand, 27 May 2010 not. JB. — Ibid., Smutný žleb NR, decaying trunk of *Fagus* in acidophilous beech forest, 25 Jul. 2011 not. JB. — Břestek (distr. Uherské Hradiště), Břestek skála NM, on decaying trunk of *Fagus* in oak-beech forest, 19 Apr. 2011, leg. et det. JB (herb. JB11/20). — Litenčická pahorkatina Downs, Pavlovice (distr. Vyškov), Ve žlebcích NR, c. 1 km NE of the church in the village, on a fallen trunk of *Fagus*, 22 Apr. 2017 leg. et det. JB (herb. JB17/22). — Ždánický les, Ždánice (distr. Hodonín), U Vrbý NR, c. 4 km NNE of the church in the village, on decaying branch of *Fagus* in old beech forest, 5 Jun. 2012 leg. et det. JB (herb. JB12/127). — Dolnomoravský úval Dell, Lanžhot (distr. Břeclav), Cahnov-Soutok NNR, fenced part of the reserve, natural floodplain forest, on dead trunk and branches of *Carpinus*, 8 May 2013 leg. et det. JB (herb.

JB13/140); *ibid.*, on snag of *Quercus robur*, 8 May 2013 leg. et det. DD (herb. DD 130508-11). – Lanžhot (distr. Břeclav), Ranšpurk NNR, natural floodplain forest, on decaying trunk of *Carpinus*, 9 May 2014 not. JB.

**Remarks.** The species has obviously spread westwards in recent years. Some 35 years ago, it was not known in Czech territory (KOTLABA 1984); today, it is much more abundant in Moravia (especially in its Carpathian part) than in Bohemia. In the experience of the authors, it is most often found on freshly-fallen, but still hard, beech trunks in old beech stands disturbed by wind calamities and left to spontaneous development. In such localities (e.g. Holý kopec NR), the species may occur massively on many trunks.

***Tyromyces kmetii* (Bres.) Bondartsev & Singer (RL: CR)** (Fig. 27)

**Material examined. Moravia.** Podyjí NP, Hnanice (distr. Znojmo), c. 1.9 km NW of the church in the village, open thermophilous oak forest close to Fládnitzská chata Lodge, on decaying branch of *Quercus* sp., 2 Sept. 2010 leg. et det. JB (herb. JB10/1028). – Vranov nad Dyjí (distr. Znojmo), Braťava forest, c. 2.9 km SEbE of the castle, in alluvium on the right bank of River Dyje, on dead hardwood branch (probably *Alnus* sp.), 30 Sept. 2013 leg. et det. JB (herb. JB13/1231). – Lukov (distr. Znojmo), c. 2.6 km SW of the church in the village, southern foothill of the Gáliš, on decaying branch of a broadleaved tree in a clearing in oak-hornbeam forest, 3 Oct. 2013 leg. et det. JB (herb. JB13/1320). – Ibid., c. 2.1 km WSW of the church in the village, on steep western slope over the forest road to Uhličova louka, on decaying twig of *Carpinus/Corylus avellana* in fragment of pine forest with *Sesleria caerulea* dominating in herb storey, 4 Sept. 2013 leg. et det. JB (herb. JB13/907). – Ibid., c. 0.3 km SW of the crossroads of tourist paths known as “Příčky”, mixed forest, decaying branch of *Carpinus/Tilia* sp., 6 Sept. 2015, leg. M. Čapounová, det. JB (herb. JB15/2001). — Jevišovická pahorkatina Downs, Čučice (distr. Brno-venkov), Údolí Oslavy a Chvojnice NR, on a hillside c. 0.7 km SW of Plánice Hill, open oak forest, on decaying twig of *Quercus* sp., 24 Jul. 2016 leg. et det. JB (herb. JB16/185).

**Remarks.** In the past, this species was only sporadically recorded in Czech territory and KOTLABA (1984) mentions only a single collection from Moravia. Interestingly, it has been quite regularly recorded in warm, deciduous forests in deep river valleys in southwestern Moravia during recent years. As mentioned by KUTHAN *et al.* (1999), the species strongly favours the thin branches and twigs of broadleaved trees as a substrate.

***Yuchengia narymica* (Pilát) B. K. Cui, C. L. Zhao & K. T. Steffen (RL: CR)**  
(Fig. 28)

= *Perenniporia narymica* (Pilát) Pouzar

**Material examined. Moravia.** Moravský kras PLA, Habrůvka (distr. Blansko), Habrůvecká bučina NNR, fallen trunk of *Fagus*, 5 Aug. 2010 leg. DD, det. P. Vampola (herb. DD 224/10); *ibid.*, fallen trunk of *Acer platanoides*, 20 Sept. 2012 leg. DD, det. M. Tomšovský (herb. DD 120920-13). – Babice nad Svitavou (distr. Brno-venkov), Čihadlo NR, fallen trunk of *Quercus* sp. without bark, 25 Feb. 2017 leg. J. Hrabáková, det. L. Zibarová (HR 104212). — Jevišovická pahorkatina Downs, Sedlec (distr. Třebíč), Údolí Oslavy a Chvojnice NR, c. 0.5 km NNW of the U Glorietu viewpoint, by the mouth of a right-side drying stream to Oslava river, on a decaying trunk of *Carpinus*, 27 May 2015 leg. et det. JB (herb. JB15/372). — Podyjí NP, Mašovice (distr. Znojmo), former terraces in the forest c. 0.2 km WSW of the Králův stolec viewpoint, on a decaying trunk of *Quercus petraea*, 7 Jul. 2010, 20 and 24 Sept. 2011 leg. et det. JB (herb. JB10/583, JB11/524, JB11/479). – Lukov (distr. Znojmo), c. 2.3 km WSW of the church in the village, at the foot of Sloní hřbet Ridge overlooking Uhličova louka Meadow, on a decaying branch of *Carpinus* in nutrient-rich oak-hornbeam forest, 30 Jul. 2012 leg. et det. JB (herb. JB12/373). – Horní Břečkov (distr. Znojmo), c. 4.2 km SWbW of the church in the village on the left-sided slope over the River Dyje, on a decaying snag of *Corylus avellana*, 29 Aug. 2012 leg. et det.

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JB (herb. JB12/459). – Vranov nad Dyjí (distr. Znojmo), c. 2.3 km SEbE of the castle, forest known as “Braitava”, at the foot of right-sided slope over the River Dyje past the Vranovská lávka bridge, on decaying trunk of deciduous tree (*Fagus*?) in humous-rich beech forest, 2 Sept. 2012 leg. et det. JB (herb. JB12/508). – Čížov (distr. Znojmo), c. 2.4 km SSW of the chapel in the village, at the foot of the left-side slope over the River Dyje, on a decaying, partly-decorticated trunk of *Carpinus* (25 cm in diam.), 21 Jun. 2013 leg. et det. JB (herb. JB13/604). – Ibid., c. 2.7 km SSE of the chapel in the village, on the south-facing hillside overlooking the bridge across the River Dyje in Hardegg, on a decaying trunk of *Tilia* sp. (15 cm in diam.) in base-rich oak-hornbeam forest, 30 Sept. 2014 leg. et det. JB (herb. JB14/1174). 2.3 km. — **Austria.** Thayatal NP, Felling, in the ravine forest under the Heimatkreuz viewpoint over the Thaya valley, on a decaying branch of *Carpinus*, 11 Jun. 2014 leg. et det. JB (herb. JB14/264).

**Remarks.** The species forms resupinate, cream to yellowish-coloured fruiting bodies with characteristically undulate surface and edges of confluent tubes. Macroscopically, it may resemble some other resupinate polypores, but when fully developed, the fruiting bodies may be 2–3 centimeters thick and span up to several metres (e.g. our collections from Habruvecká bučina and Králův stolec). Such dimensions are reached by hardly any other resupinate polypore known to us. Microscopically, it is easily distinguished by its skeletal hyphae, which are distinctly amyloid; they also swell and dissolve in KOH (in similar fashion to *Cinereomyces lindbladii*). Based on these features and molecular data, the new genus of *Yuchengia* (ZHAO *et al.* 2013) was recently erected for this species. In Czech territory, it was first discovered in 2005 in Vývěry Punkvy NNR in the Moravian Karst. However, in neighbouring Slovakia it is known from several localities (VAMPOLA & VÁGNER 2007). In Podyjí NP it was recently found in several places and is possibly starting to spread in Czechia. The species appear to favour well-preserved, warm deciduous forests as a habitat and may occur on a broad spectrum of deciduous trees. Elsewhere in Europe it has also been reported from *Pinus* (RYVARDEN & MELO 2014). We have also found the species above the right bank of the River Dyje and this collection probably constitutes the first record for Austria.

## Conclusions

The records included in this contribution show that some regions in Moravia, especially the well-preserved forests in deep river valleys (Dyje, Oslava, Jihlava) and gorges of Moravian Karst, host very diverse communities of polypores. More detailed discussion of our findings will be presented in other parts of this treatise.

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### Summary

V tomto příspěvku shrnujeme převážně naše vlastní novodobé (především z období po roce 2006) nálezy vybraných vzácných druhů chorošovitých hub (Polyporales s.l.) z území České republiky, zejména Moravy. V této první části uvádíme nálezy celkem 36 druhů, u většiny z nich s poznámkami k jejich základním znakům, ekologii a výskytu a u 28 druhů rovněž s dokumentační barevnou fotografií. Z námi nalezených druhů patří dle červeného seznamu k ohroženým 25 taxonů – 16 v kategorii CR, 6 v kategorii EN, 3 v kategorii VU. K našim nejvýznamnějším zjištěním patří nové nálezy druhů s dosud jedinou (*Aurantiporus alborubescens*, *Chaetoporellus latitans*, *Riopa metamorphosa*) či dvěma (*Jahnoporus hirtus*) známými lokalitami v ČR, několik druhů uvádíme poprvé z území Moravy (*Byssoporia terrestris*, *Phellinus lundellii*), u dalších druhů považovaných za velmi vzácné jsme objevili větší množství nových lokalit (*Gelatoporia subvermispora*, *Porothelium fimbriatum*, *Tyromyces kmetii*, *Yuchengia narymica*). Naše nálezy dokazují, že i oblasti polyporologicky dosud poněkud opomíjené (CHKO Moravský kras, NP Podyjí) patří k mykologicky velmi cenným, na chorošovité houby bohatým územím.

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Figs 1–2. 1 – *Albatrellus confluens*: Dolní Morava, 19. VIII. 2014. Photo D. Dvořák. 2 – *Albatrellus cristatus*: Brno-Ivanovice, 22. IX. 2014. Photo D. Dvořák.

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Figs 3–4. 3 – *Albatrellus subrubescens*: Velká Kraš, 1. X. 2013. Photo D. Dvořák. 4 – *Antrodiella citrinella*: Dolní Morava, 24. IV. 2014. Photo D. Dvořák.

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Figs 5–6. 5 – *Aurantiporus alborubescens*: Lažánky, 29. VIII. 2016. Photo J. Běťák. 6 – *Buglossoporus quercinus*: Březník, 3. VII. 2016. Photo D. Dvořák.

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Figs 7–8. 7 – *Byssoporia terrestris*: Žulová, 18. X. 2013. Photo D. Dvořák. 8 – *Ceriporiopsis balaenae*: Staňkov, 2. X. 2006. Photo D. Dvořák.

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Figs 9–10. 9 – *Chaetoporellus latitans*: Cikháj, 1. X. 2015. Photo J. Běťák. 10 – *Dichomitus squalens*: Bzenec, 27. V. 2009. Photo D. Dvořák.

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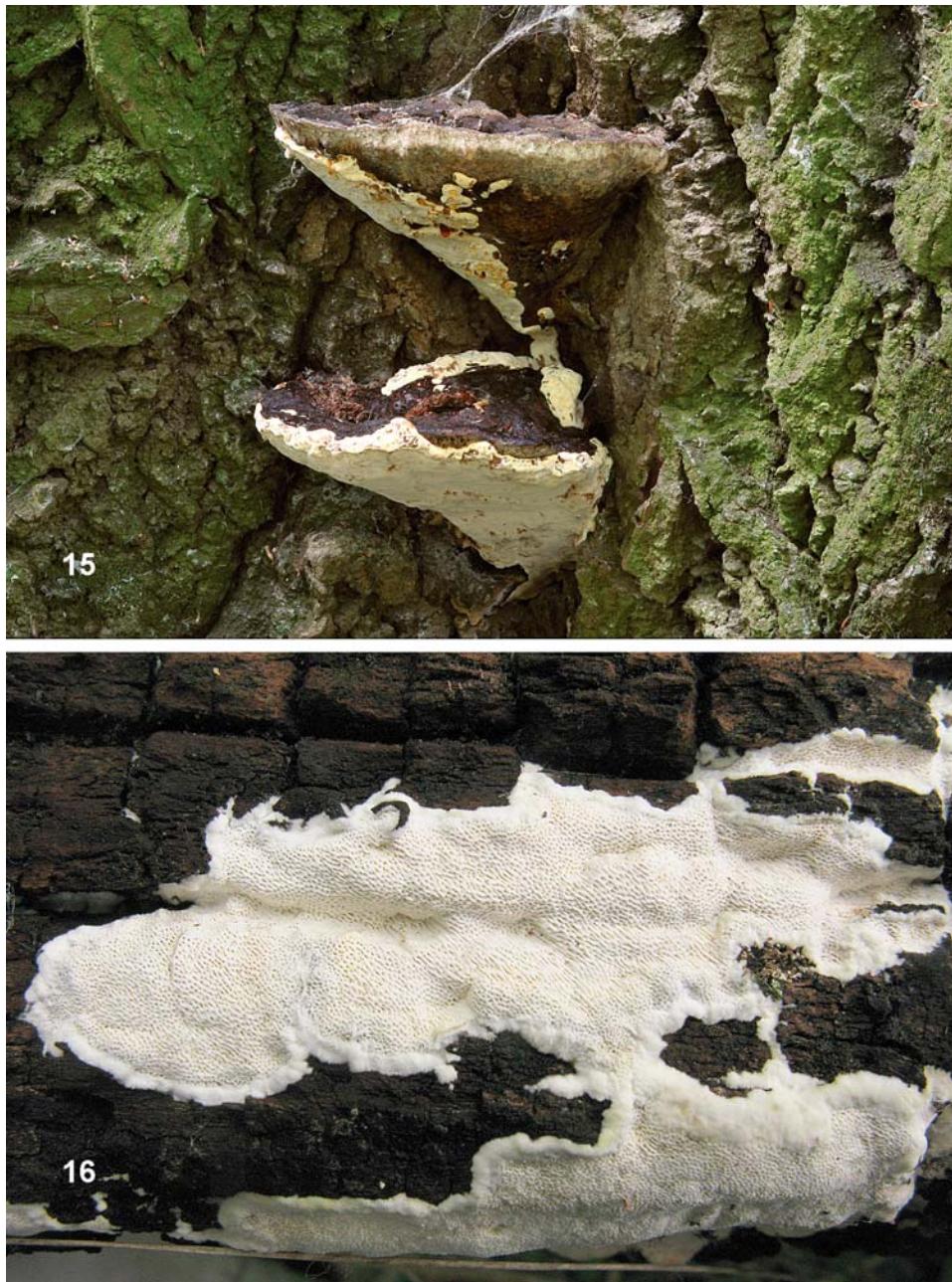
Figs 11–12. 11 – *Ganoderma cupreolaccatum*: Nové Syrovice, 5. X. 2013. Photo D. Dvořák. 12 – *Gelatoporia subvermispora*: Dolní Lomná, 10. IX. 2015. Photo D. Dvořák.

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Figs 13–14. 13 – *Jahnoporus hirtus*: Žulová, 22. VIII. 2013. Photo D. Dvořák. 14 – *Loweomyces wynneae*: Březina, 31. X. 2008. Photo D. Dvořák.

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Figs 15–16. 15 – *Perenniporia fraxinea*: Nové Mlýny, 16. VI. 2011. Photo D. Dvořák. 16 – *Perenniporia meridionalis*: Nevojice, 30. V. 2014. Photo J. Běťák.



Figs 17–18. 17 – *Phellinidium pouzarii*: Horní Lomná, 8. X. 2015. Photo J. Běťák. 18 – *Phellinus lundellii*: Malá Morávka, 12. X. 2008. Photo D. Dvořák.

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**Figs 19–20.** 19 – *Phellinus rhamni*: Mohelno, 12. VI. 2013. Photo D. Dvořák. 20 – *Porotheleum fimbriatum*: Březina, 30. VI. 2009. Photo D. Dvořák.

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Figs 21–22. 21 – *Pouzaloporia subrufa*: Nové Mlýny, 22. X. 2011. Photo D. Dvořák. 22 – *Riopa metamorphosa*: Podmolí, 30. V. 2016. Photo J. Běťák.

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Figs 23–24. 23 – *Sanghuangporus pilatii*: Nové Mlýny, 22. X. 2011. Photo D. Dvořák. 24 – *Spongipellis litschaueri*: Podhradí nad Dyjí, 30. V. 2011. Photo J. Běťák.

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Figs 25–26. 25 – *Spongipellis pachyodon*: Čížov, 17. X. 2015. Photo J. Běťák. 26 – *Trichaptum biforme*: Bukovina, 25. VIII. 2014. Photo J. Běťák.

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Figs 27–28. 27 – *Tyromyces kmetii*: Lukov, 6. IX. 2015. Photo M. Čapoun. 28 – *Yuchengia narymica*: Čížov, 21. VI. 2013. Photo J. Běťák.