

## New, rare and lesser-known macromycetes in Moravia (Czech Republic) – IX

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ANTONÍN V. & DVOŘÁK D. 2010: New, rare and lesser-known macromycetes in Moravia (Czech Republic) – IX. *Acta Musei Moraviae, Scientiae biologicae* (Brno) 95(1): 143–162. – The authors give descriptions of macro- and microfeatures of 13 rare or lesser-known macromycetes collected in Moravia (Czech Republic). *Elaphomyces septatus* and *Lepiota griseovirens* are recorded for the first time in the Czech Republic. *Lepiota lilacea* and *Psilocybe laetissima* are published for the first time from Moravia, *Coprinopsis spelaiophylla* for the second time. *Armillaria ectypa* has been re-collected after almost 50 years, *Clavariadelphus truncatus* after almost 30 years, and *Gastrum berkeleyi* after more than 20 years. *Biscogniauxia simplicior* and *Lyophyllum leucophaeatum* have only a few recent Moravian localities. Further, *Callistosporium pinicola* represents a rare, only recently-recorded taxon. *Crepidotus crocophyllus* has been collected outside its previously-known range in the southernmost part of Moravia. *Aleurodiscus disciformis* is a critically endangered species that has been collected at several localities in Moravia.

**Key words.** Basidiomycetes, *Aleurodiscus*, *Armillaria*, *Biscogniauxia*, *Callistosporium*, *Clavariadelphus*, *Coprinopsis*, *Crepidotus*, *Elaphomyces*, *Gastrum*, *Lepiota*, *Lyophyllum*, *Psilocybe*, Moravia, Czech Republic

### Introduction

In the course of their mycological field research in various parts of Moravia in recent years, the authors have found several rare or interesting macromycetes. Some of these are published in this paper.

Macro- and microscopic descriptions are mainly based on material collected by the authors. Microscopic characters are described from material mounted in Melzer's reagent, Congo-red, c. 5% KOH, and H<sub>2</sub>O. For the basidiospores, Ø denotes average size, E the quotient of length and width in any one spore and Q the mean of E-values. In lamellae, L stands for the number of lamellae and l the number of lamellula tiers between two complete lamellae.

Authors of fungal names are cited according to KIRK & ANSELL (1992), colour terminology after KORNERUP & WANSCHER (1983) and herbarium abbreviations after HOLMGREN & HOLMGREN (1998). Herbarium specimens of the fungi described are preserved in the Herbarium of the Department of Botany of the Moravian Museum in Brno (BRNM) and the Department of Botany and Zoology of Masaryk University, Brno (BRNU), Czech Republic.

*Aleurodiscus disciformis* (DC.: Fr.) Pat.

(Fig. 1, Photo 1)

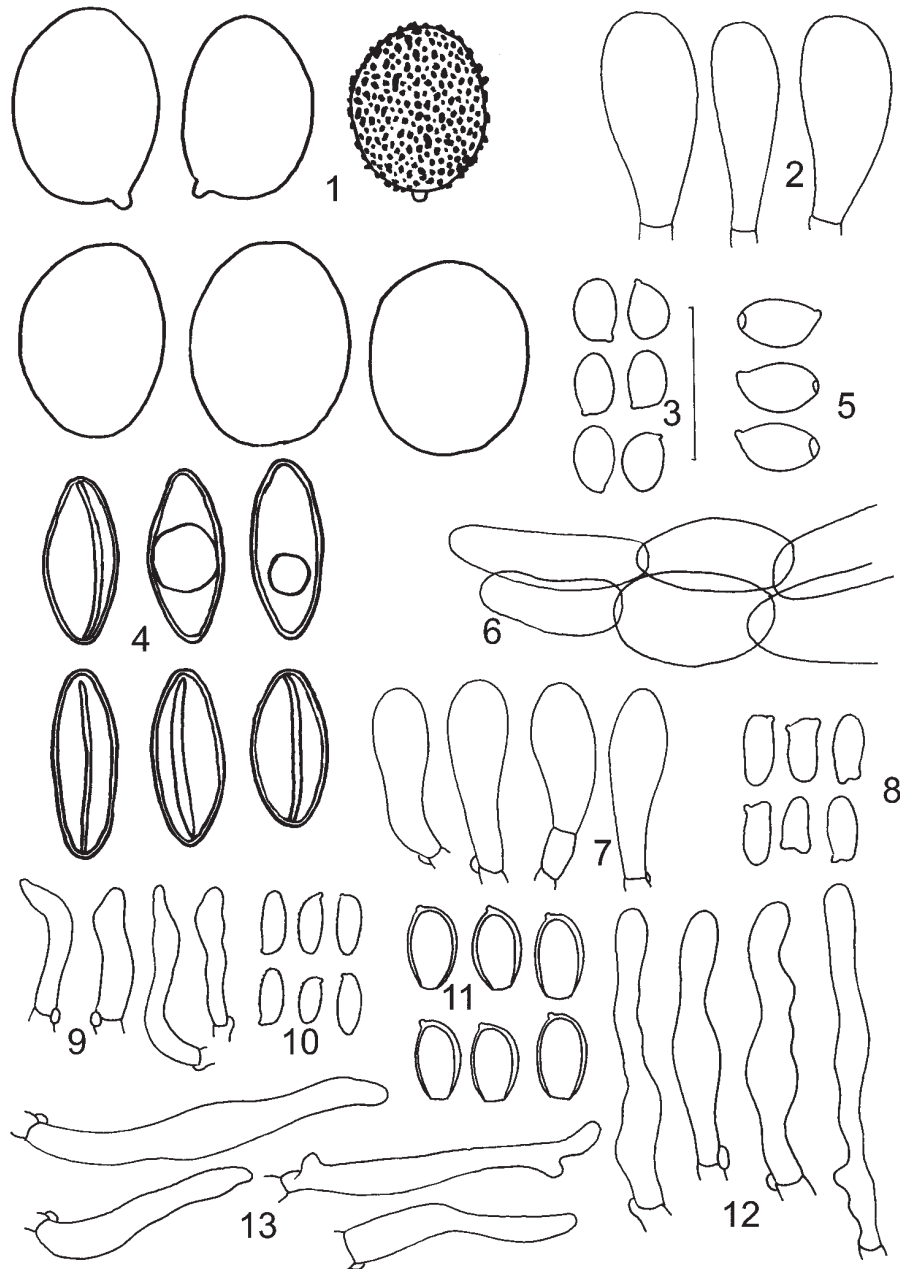
**Description.** Basidiocarps usually gregarious, stereoid-resupinate, at first small, orbicular in outline, later more irregular, lobed and elongate along cracks in tree-bark, usually up to 3×1.5 cm, but occasionally coalescent and appearing in larger patches (the largest occurring in a specimen from Mokrá – 10.5×7.5 cm), up to 1.5 mm thick, with narrow (1–2 mm) reflexed margin. Hymenial surface uneven, finely velutinous, sometimes partly tuberculate, at first smooth, later irregularly cracked, whitish, soon pale greyish, greyish-beige or pale coffee-and-milk (café au lait) coloured. Context tough, coriaceous, colour similar to hymenium.

Spores ellipsoid, (15–)16–19×11.5–12.5(–14) µm, Ø = 17.3×12.2 µm, E = 1.2–1.6, Q = 1.42, ± thin-walled, densely minutely warty, strongly amyloid. Basidia narrowly clavate, 4-spored, at apex 10–15 µm wide, slightly thick-walled (wall up to 0.5 µm thick). Cystidia ± cylindrical, at apex moniliform or repeatedly constricted, 7–10 µm wide, thin- to slightly thick-walled, often covered with rough irregular-rhomboid crystals. Hyphal system monomitic. Vegetative hyphae densely interwoven, 3–5 µm in diam., thick-walled to almost solid, sparsely septate, clamped.

**Habitat.** On bark of living trees of *Quercus* sp., usually approx. 1–2 m above the ground or higher, much rarer on dead standing trees or even on fallen trunks (Mašovice, Hády), in various types of oak forests, usually in warm positions.

**Collections studied.** Adamov, Josefovské údolí valley, Býčí skála National Nature Reserve, part known as Slovenská stráň, 31 May 2002 leg. et det. A. Vágner (BRNM 670762; POUZAR 2006). – Brno-Soběšice, near tourist trail (red-marked), c. 1.25 km NNE of the centre of the village, alt. 390 m, 16 March 1997 leg. et det. A. Vágner (BRNM 612539). – Bílovice nad Svitavou, c. 2 km E of the railway station, Zadní Hády Nature Reserve, in several places, alt. 400–410 m, coord. 49°14'30"N, 16°42'4"E, 24 Apr. 2010 leg. et det. D. Dvořák (BRNU). – Bílovice nad Svitavou, c. 2.3 km SE of the railway station, alt. 405 m, coord. 49°13'38"N, 16°41'36"E, 24 Apr. 2010 not. D. Dvořák. – Bílovice nad Svitavou, Hády hill, c. 0.75 km NE of the top, alt. 415 m, coord. 49°13'31"N, 16°40'53"E, 12 Apr. 2008 leg. et det. D. Dvořák (BRNU). – Ibid., Hádecká planinka National Nature Reserve, alt. 420 m, 18 May 1995 leg. et det. A. Vágner (BRNM 603198). – Ibid., 14 May 2003 leg. et det. A. Vágner (BRNM 677321). – Ibid., in several places, 18 Apr. 2008 not. D. Dvořák. – Ibid., c. 0.3 km ENE of the top of Hády hill, alt. 415 m, coord. 49°13'22.7"N, 16°40'39.8"E, 18 Nov. 2009 leg. et det. D. Dvořák (BRNU). – Mokrá u Brna, in forests between Horákovská and Mokerská myslivna lodge, alt. c. 350–420 m, 16 March 2005 leg. et det. A. Vágner (BRNM 695445; POUZAR 2006). – Šemikovice, Rokytná river valley, c. 1.5 km SW of the village, xerothermic slope, alt. 330–350 m, 5 Apr. 1995 leg. et det. A. Vágner, rev. K. Čížek (BRNM 603193). – Podyjí National Park, Mašovice, Mločí údolí valley c. 2.2 km SE of the village, alt. 240–270 m, 28 Apr. 2010 leg. et det. J. Běťák (herb. Běťák). – Pouzdřany, forest known as Kolby c. 1.2 km NE of the railway station, Pouzdřanská Step – Kolby National Nature Reserve, alt. 305 m, coord. 48°56'54.3"N, 16°38'37.8"E, 2 Nov. 2008 leg. D. Dvořák et J. Běťák, det. D. Dvořák (BRNU). – Bílé Karpaty Protected Landscape Area, Malá Vrbka, E slope of Výzkum hill, c. 600 m W of the church in the village, alt. 325 m, coord. 48°52'15.9"N, 17°26'53.7"E, 29 March 2008 leg. et det. D. Dvořák (BRNU; ANTONÍN *et al.* 2010). – Javorník, Jazevčí National Nature Reserve 3 km NE of the village, 3 June 2005 leg. et det. A. Vágner (BRNM 695534; POUZAR 2006; ANTONÍN *et al.* 2010). – Ibid., 28 July 2005 leg. et det. A. Vágner (POUZAR 2006; ANTONÍN *et al.* 2010). – Nedašov, Kaňoury Nature Monument c. 3 km E of the village, alt. 610–650 m, 5 Sept. 2009 leg. et det. A. Vágner (BRNM 721587; ANTONÍN *et al.* 2010).

**Remarks.** *Aleurodiscus disciformis* is characterized by light greyish stereoid fruit-bodies with slightly deflexed margin, usually growing in large groups on the bark of *Quercus* spp. (according to the literature rarely also on other substrata: *Acer campestre* – ANTONÍN 1990; *Acer platanoides*, *Castanea sativa*, *Tilia cordata*, *Ulmus minor* – KOTLABA 2010).



**Figs 1–13.** *Aleurodiscus disciformis*: 1 – basidiospores. *Armillaria ectypa*: 2 – cheilocystidia, 3 – basidiospores. *Biscogniauxia simplicior*: 4 – ascospores. *Coprinopsis spelaiophylla*: 5 – basidiospores, 6 – velar cells. *Lepiota griseovirens*: 7 – cheilocystidia, 8 – basidiospores. *Lyophyllum leucophaeatum*: 9 – marginal cells, 10 – basidiospores. *Psilocybe laetissima*: 11 – basidiospores, 12 – cheilocystidia, 13 – caulocystidia. Scale bar = 20  $\mu\text{m}$  (but = 50  $\mu\text{m}$  for no. 6).

Microscopically the large, strongly amyloid verrucose spores are diagnostic. Since the publication of the Red List of fungi (macromycetes) of the Czech Republic (HOLEC & BERAN 2006), it has been recorded at several new localities in Bohemia (KOUT 2006, KOTLABA 2007, 2010, HOLEC 2009). According to the Red List, this fungus is a critically endangered species (POUZAR 2006). Our records show that in suitable habitats in Moravia (namely thermophilous *Quercus* forests), especially in the surroundings of Brno, this species is probably more common than was generally thought. We agree with KOTLABA (2007) that *Aleurodiscus disciformis* will probably be discovered at new localities when diligently sought after.

***Armillaria ectypa* (Fr.) Emel**

(Figs 2–3)

For a macroscopic description, see e.g. TERMORSHUIZEN (1995), and WILHELM (1993).

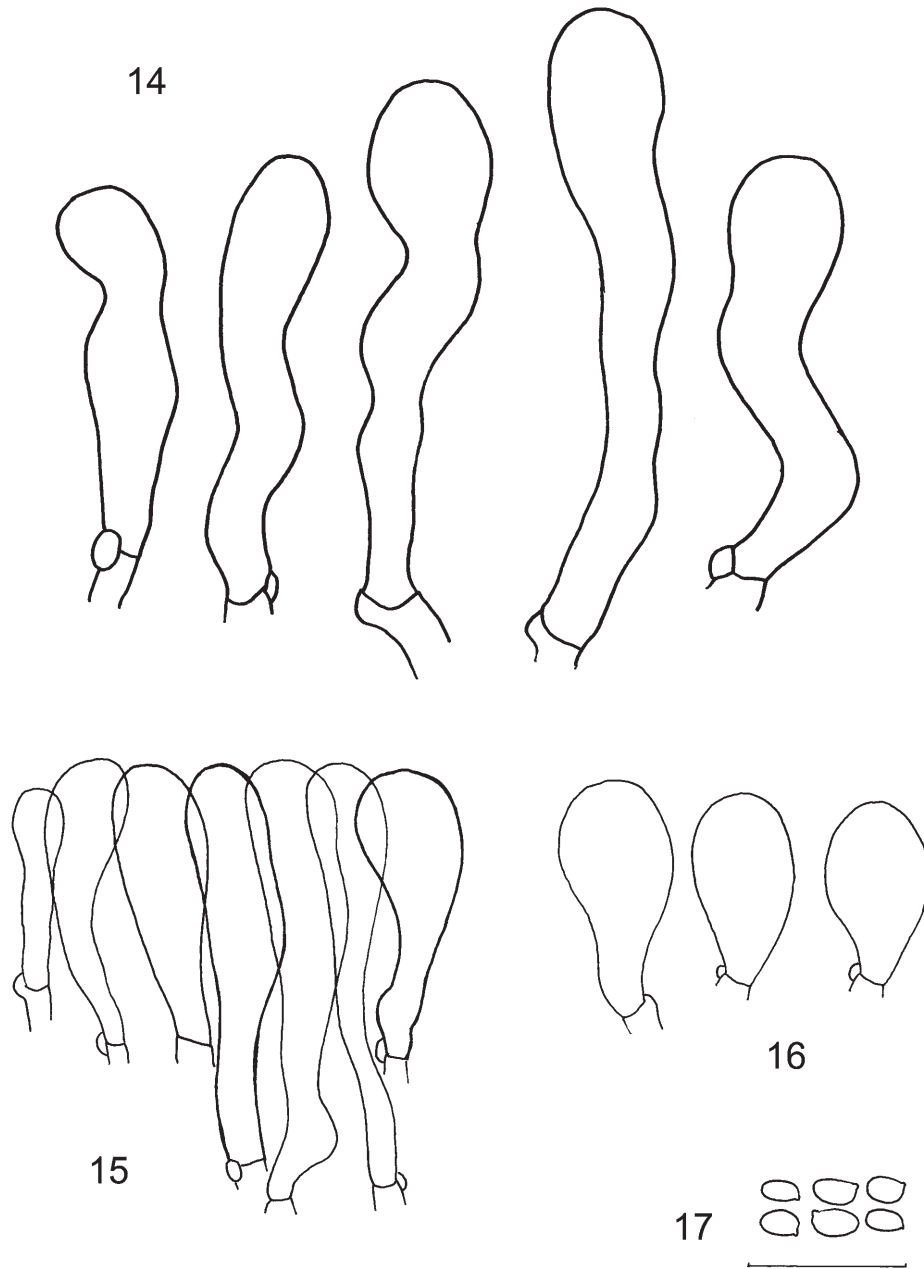
**Microscopic description.** Basidiospores 8.0–9.5(–10)×(5.0–)5.5–6.5 μm, Ø = 8.7×5.8 μm, E = 1.3–1.7, Q = 1.5, (broadly) ellipsoid, obovoid, thin- to slightly thick-walled, uniguttulate, non-dextrinoid. Basidia 29–40×8.0–11 μm, 4-spored, clavate with (light) median constriction, clamped; crassobasidia present. Basidioles 18–40×4.0–9.0 μm, clavate, subfusoid, subcylindrical, clamped. Lamella edge fertile. Marginal cells 30–35×7.0–14 μm, clavate, sometimes irregular, thin- to slightly thick-walled. Pileipellis a cutis consisting of ± cylindrical, thin-walled, clampless, non-dextrinoid, up to 10 μm wide hyphae with subhyaline to brownish walls in KOH. Pileus scales of cylindrical to fusoid, smooth or incrustate, brown, vacuolarly pigmented cells; terminal cells 30–72×7.0–12 μm, cylindrical, subulate, fusoid, obtuse. Stipitipellis a cutis composed of cylindrical, parallel, slightly thick-walled, clampless, brown, up to 6.0(–7.0) μm wide hyphae. Caulocystidia appressed to erect, cylindrical to fusoid, thin-walled.

**Habitat.** On soil in a stand of watery moss in a transitional mire.

**Collection studied.** Jihlavské vrchy Highlands, Horní Vilímeč, V Lisovech Nature Reserve, alt. c. 640–650 m, coord. 49°14'51"N, 15°16'43"E, 12 July 2009 leg. et det. M. Brom, rev. V. Antonín (BRNM 724496).

**Remarks.** *Armillaria ectypa* is characterized by often -indistinct pileus scales, the absence of an annulus, and growing (mostly singly or in groups) in wet mossy and/or *Sphagnum* stands, but never in clusters. It is an extremely rare fungus in the Czech Republic. To date, it has been collected at only one recent locality (South Bohemia, Třeboňsko Protected Landscape Area, Ruda National Nature Reserve, 1997, PRM). The locality published here represents the second Czech and the first recent Moravian record. In Moravia, it was collected in a relatively large quantity in the vicinity of Pílský rybník Pond near Žďár nad Sázavou (Žďárské vrchy Mts., specimens in BRNM; ŠMARDKA 1950) in the 1940's and 1950's. However, its habitat in this locality was destroyed by the construction of a dam. Therefore almost 50 years passed before this fungus was collected again in Moravia. The species is critically endangered according to the Red List of fungi (macromycetes) of the Czech Republic (ANTONÍN 2006).

In the literature, this species may be found with two different author combinations “(Fr.) Lamouré 1965” (e.g. TERMORSHUIZEN 1995; CABI index: <http://www>.



**Figs 14–17.** *Crepidotus crocophyllus*: 14 – cheilocystidia. *Lepiota lilacea*: 15 – pileipellis cells, 16 – cheilocystidia, 17 – basidiospores. Scale bar = 20  $\mu$ m.

speciesfungorum.org/Names/Names.asp), and “(Fr.) Herink 1973” (e.g. HERINK 1973; VESTERHOLT 2008). However, both these combinations are rendered superfluous by the validity of the combination by Emel (1921; see also VOLK & BURDSALL 1995).

***Biscogniauxia simplicior* Pouzar**

(Fig. 4, Photo 2)

**Description.** Stromata solitary or growing in dense groups, turbinate, contracted below, often laterally compressed, 13–18 mm long, 7–13 mm wide and 8–11 mm high, margin irregularly coarsely dentate. Disc ± black, sometimes with purplish hue, with thin brownish line on the margin, ostioles flat, surface around ostioles finely cracking.

Ascospores 12.5–16.5(–20.5)×5.5–8 μm, Ø = 15×6.35 μm, E = 1.9–2.8, Q = 2.36, pale brown, dark brown to blackish-brown, usually with one large guttula, ellipsoid-fusiform, usually with rounded, but sometimes rather acute tops and with straight germ slit on one side.

**Habitat.** On sun-exposed sites in thermophilous *Quercus* or *Quercus-Carpinus* forests, always on dying trunks of *Rhamnus cathartica* of 8–20 cm in diam., usually in wounds or in scars where branches have broken off.

**Collections studied.** Březník, Oslava river valley c. 2.5 km W of the village, Údolí Oslavy and Chvojnice Nature Reserve, on slope above the left bank of the river, alt. 340–400 m, 10 May 2008 leg. et det. D. Dvořák (BRNU). – Křtiny, south-facing slope in the valley of Křtinský potok stream, c. 1.3 km WSW of the church in the village, U Výpustku National Reserve, alt. 420 m, coord. 49°17'35.6"N, 16°43'30.8"E, 29 May 2008 leg. et det. D. Dvořák (BRNU). – Bílovice nad Svitavou, c. 1.6 km SSE of the railway station, near Šumbera rocks, alt. 425 m, coord. 49°13'48.3"N, 16°40'54.2"E, 24 Apr. 2010 leg. et det. D. Dvořák (BRNU).

**Remarks.** *Biscogniauxia simplicior* differs from the superficially very similar *B. repanda* (Fr.: Fr.) Kuntze in its slightly longer ascospores with unilateral germ slit and growth exclusively on *Rhamnus cathartica* (POUZAR 1979, Yu *et al.* 1998). It was described rather recently (POUZAR l.c.) and has been discovered in only a few European countries since. It is known from the Czech Republic, Bulgaria, France, Germany and Slovakia (POUZAR 1986, FOURNIER & MAGNI 2004). In the Czech Republic, it is considered endangered (POUZAR 2006b) and is legally protected (ANTONÍN & BIEBEROVÁ 1995). In Moravia, *Biscogniauxia simplicior* had previously been published from only two localities, in Podyjí National Park (Čížov – Hardeggská skála; Podmolí – Ostroh near Nový hrádek; see VÁGNER 1995, ANTONÍN & VÁGNER 2000: 35).

Additional material from one of “classical” localities (mentioned in the protologue of the original description) was also studied: Srbsko (Český kras Protected Landscape Area), Koda National Nature Reserve, Císařská rokle Gorge, 2 Apr. 2008 leg. et det. J. Holec et D. Dvořák (BRNU; for details see Holec 2009).

***Callistosporium pinicola* Arnolds**

**Habitat.** Always on decayed wood of *Picea abies*: on fallen trunk in mixed forest with *Acer*, *Fagus*, *Picea* and scattered *Abies* (Drahonín), on extensively decayed fallen trunk covered with mosses in mountainous spruce forest (Malá Morávka) and on rotten stump in mixed forest (U Výpustku NR).

**Collections studied.** Březina, U Výpustku Nature Reserve, alt. 370–470 m, coord. 49°17'28"N, 16°43'12"E, 18 July 2008 leg. A. Vágner, 10 Apr. 2010 det. J. Holec (BRNM 724703). – Drahonín, Trenckova rokle gorge, valley bottom (two microlocalities), alt. c. 450 m, coord. 49°24'26"N, 16°15'50"E, 30 July 2009 leg. S. Kubešová, det. V. Antonín (BRNM 724529). – Malá Morávka-Karlov (Hrubý Jeseník Mts.), in valley of Moravice stream below Velká Kotlina cirque, alt. 1090 m, coord. 50°3'11.5"N, 17°14'49.2"E, 31 July 2009 leg. et det. D. Dvořák (BRNU).

**Remarks.** Within the genus *Callistosporium*, *C. pinicola* differs from similar species in having small basidiospores and a very distinctive farinaceous smell and bitterish-to-bitter taste.

The first records of *Callistosporium pinicola* in the Czech Republic were published by ANTONÍN *et al.* (2009), including a detailed macro- and microscopic description. The species has been found at ten localities to date, five of them in Moravia (Beskydy Mts.: Salajka; Hostýnské Hills: Tesák; Moravian Karst: Pustý žleb, Suchý žleb; Drahanská Highland: Couřavá) – all of them after 2004. The new collections published here therefore represent the 6th through 8th Moravian records. In the Czech Republic, *C. pinicola* has been found (with one exception) in old-growth forests (for forest stand classification, see HOLEC 2008), in ± colder stands (montane or submontane forests and stream valleys or gorges in the colline belt). The collection from the Trenckova rokle gorge and Moravice stream valley was made in a similar habitat. U Výpustku Nature Reserve is situated in a somewhat warmer area if compared with other Czech records (however, the specimen was collected on a north-facing slope). In other European countries it has also been found in cultivated forests. For a detailed description and more information on the ecology and distribution of this fungus in the Czech Republic and Europe, see ANTONÍN *et al.* (2009).

*Clavariadelphus truncatus* (Quél.) Donk

(Photo 3)

**Description.** Basidiocarps at first nearly cylindrical to narrowly clavate, than broadly clavate with more or less flattened top, 6–8 cm high, 3–5 cm in diam., at the base narrowed (sometimes rather abruptly) into a 1–2 cm long and 5–8 mm wide stem. Surface of basidiocarps smooth to finely longitudinally wrinkled, pruinose, ochre-brown to carmine brown, upper side more coarsely wrinkled, roughened to almost cerebriform, deep ochre without brown or reddish tinges, the boundary between the sterile and the fertile surface sometimes rather sharp. Flesh soft and lightweight, almost cottony, whitish, slightly discolouring pinkish-brown when cut. Taste distinctly sweet when fresh, slightly bitterish one day after collecting, smell pleasant, fungal. Macrochemical reactions: 30% KOH – surface carmine pink-red, flesh immediately yellow; 10% FeSO<sub>4</sub> – surface olivaceous-green, flesh immediately blue-green.

Basidiospores (9.5–)10–13(–13.5)×(5–)5.5–7(–8) μm, Ø = 11.4×6.5 μm, E = 1.4–2.6, Q = 1.8, very variable in shape: ellipsoid, pip-shaped, subcylindrical to almost clavate or even slightly rhomboid, usually with prominent apiculus, thin-walled, smooth. Basidia narrowly clavate, c. 80×10–12 μm. Hyphal system monomitic. Context hyphae ± cylindrical, 7.0–13 μm wide, thin- to slightly thick-walled, clamped.

**Habitat.** Mixed forest of *Abies alba* and *Acer pseudoplatanus*, undergrowth with young *Fagus sylvatica*, *Picea abies* and *Salix caprea*, on calcareous ground (limestone).

**Collections studied.** Vilémovice, Moravský kras Protected Landscape Area, c. 200 m ESE of Macocha Chasm, near the road, alt. 485 m, coord. 49°22'20"N, 16°43'52"E, 10 Oct. 2008 leg. et det. S. Skeates (BRNU). – Ibid., 14 Oct. 2008 leg. et det. D. Dvořák (BRNU).

**Remarks.** *Clavariadelphus truncatus* is characterized by its truncate basidiocarp shape and sweetish taste and by growing in coniferous forests. Young basidiocarps could be similar to other species of *Clavariadelphus*: *C. pistillaris* (L.: Fr.) Donk has a bitterish taste and grows in broadleaved forests, *C. ligula* (Schaeff.: Fr.) Donk has more slender basidiocarps and narrower and more elongate spores.

Despite the fact that *Clavariadelphus truncatus* is treated as probably extinct (?EX) in the Red List of Czech fungi and the last specimen was allegedly collected in 1964 (JINDŘICH 2006), eight more recent, unpublished collections from the 1960's and 1970's were revealed in the BRNM herbarium: Soběšice near Brno, 28 Aug. 1966 leg. A. Vágner, det. A. Pilát (BRNM 246137). – Líšeň near Brno, spruce forest, 15 Oct. 1967 leg. K. Kadlec, det. K. Kříž (BRNM 483920). – Hvězdoňovice near Třebíč, above Steklý rybník Pond, in spruce forest, in grass on clearing, 14 Sept. 1968 leg. M. Kalina, det. K. Koncerová (BRNM 483923). – Říkonín near Tišnov, in Libochovka stream valley, spruce forest with *Pinus*, 8 Oct. 1970 leg. et det. B. Kasala (BRNM 305596). – Dolní Loučky, *Pinetum*, 26 Oct. 1970 leg. B. Kasala, det. K. Kříž (BRNM 483924). – Between the villages of Dolní Loučky and Říkonín, in spruce forest, 24 Sept. 1972 leg. F. Šiška, det. A. Vágner (BRNM 483922). – Katov, 6 Nov. 1974 leg. B. Kasala, det. K. Kříž (BRNM 483921). – Štěpánovice near Tišnov, in forest known as Na Vysoké, in grass among *Rubus idaeus* under *Quercus* sp., 30 Sept. 1979 leg. M. Adlerová, det. A. Vágner (BRNM 483918).

It is obvious that the specimens deposited in the BRNM herbarium were not taken into account when compiling the Red List. Moreover, one new locality, as cited above, has now been discovered in Moravia after nearly 30 years. Therefore, *Clavariadelphus truncatus* should now be considered as critically endangered in the Czech Republic (CR).

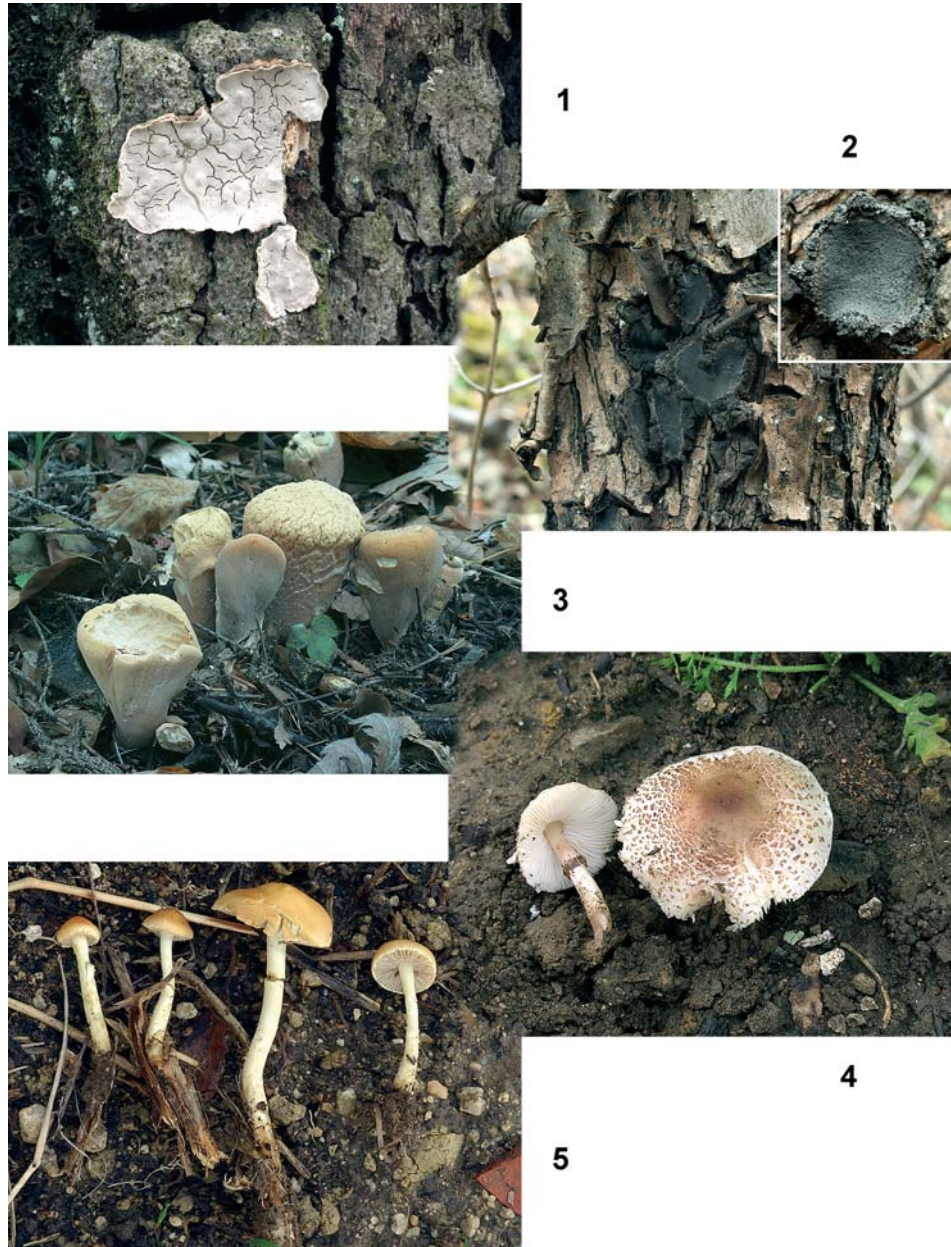
#### ***Coprinopsis spelaiophila* (Bas & Uljé) Redhead, Vilgalys & Moncalvo (Figs 5–6)**

Syn. *Coprinus spelaiophilus* Bas & Uljé, *C. extinctorius* sensu auct.

**Description.** Basidiocarps single. Pileus up to 15 mm broad and 20 mm high with involute margin when young, then obtuse paraboloid, with uplifted and slightly deliquescent margin when old, only slightly striate when young, slightly sticky, with small floccose to thin-membranaceous, dirty whitish to brownish velar remnants only at centre, otherwise glabrous, white to whitish with brownish centre. Lamellae close, white, then becoming black. Stipe up to 65×8 mm, cylindrical, enlarged at base, flocculose-pubescent – entirely so when young, mostly at apex when old, white. Context without special smell.

Basidiospores 10–12×6–7×6.0–7.5 µm (length×width×thickness), broadly fusoid, rhomboid-ellipsoid with up to 2.5 µm broad germ pore. Basidia 4-spored, clavate.





**Photographs 1–5.** 1 – *Aleurodiscus disciformis* (Malá Vrbka, BRNU, photo D. Dvořák). 2 – *Biscogniauxia simplicior* (Srbsko, Cisařská rokle, BRNU, photo D. Dvořák). 3 – *Clavariadelphus truncatus* (Vilémovice, BRNU, photo D. Dvořák). 4 – *Lepiota lilacea* (Koryčany, BRNU, photo J. Běřák). 5 – *Psilocybe laetissima* (Pavlov, BRNM 710313, photo V. Antonín).

Cheilocystidia 40–100×15–50 µm, utriform, broadly clavate or oblong, thin-walled. Velum consisting of cylindrical, (broadly) ellipsoid, sometimes curved, thin-walled, smooth, rarely granulose-incrusted elements.

**Habitat.** In rotting wood at base of *Fagus sylvatica* in beech forest (Sidonie), on dead part of living *Quercus petraea* tree *c.* 1 m high above the ground in xerothermic acidophilous *Quercetum* (Ketkovice), and on a stem of living *Quercus cerris*, *c.* 10 cm above the ground in thermophilous broadleaved forest (Rendezvous).

**Collections studied.** Ketkovice, Údolí Oslavy a Chvojnice Nature Reserve, near the ruins of Levnov Castle, alt. 350–370 m, 22 Oct. 2008 leg. et det. D. Dvořák (BRNU). – Bílé Karpaty Protected Landscape Area, Sidonie, Sidonie Nature Reserve, alt. *c.* 450 m, coord. 49°3'13"N, 18°4'15"E, 14 May 2008 leg. et det. V. Antonín (BRNM 710030). – Valtice, Rendezvous National Nature Reserve, alt. 200 m, coord. 48°46'0"N, 16°47'30"E, 30 May 2004 leg. et det. J. Burel (BRNM 695299).

**Remarks.** *Coprinopsis spelaiophila* is macroscopically similar to *Coprinellus domesticus* (Bolton: Fr.) Vilgalys et al. but differs in having a paler-coloured pileus and different structure of the velar hyphae (ULJÉ 2005). Our collections near the ruins of Levnov Castle and in the Bílé Karpaty Mts. represent the second and the third Moravian records and, since *Coprinopsis spelaiophila* is known from a single locality in Bohemia (Průhonický park; BUREL 2006, PRM 835776, PRM 853366), the third and fourth finds in the Czech Republic.

This species is included as a data-deficient taxon in the Red List of fungi (macromycetes) of the Czech Republic (BUREL 2006).

***Crepidotus crocophyllus* (Berk.) Sacc.**

(Fig. 14)

**Description.** For a description of macroscopic characters, see e.g. LAZEBNÍČEK (1970), RIPKOVÁ *et al.* (2005) and CONSIGLIO & SETTI (2008).

Basidiospores 6–6.5(–7) µm, ± globose, slightly contracted towards apiculus, densely finely verruculose, thin-walled, usually with one large guttula, inamyloid. Cheilocystidia 28–48×9–13 µm, abundant, often sinuous, ± clavate, often with rather abruptly widened top, sometimes almost subcapitate, exceptionally branched, thin-walled, clamped. Pileipellis ± a trichoderm made of bundles of ascending to erect, occasionally branched, thin- to somewhat thick-walled, 10–20 µm wide, strongly encrusted clamped hyphae, rusty-yellowish in KOH, slightly constricted at septa. Terminal elements 45–80×7–15 µm, often attenuated apically into short, *c.* 5 µm wide appendix.

**Habitat.** On trunk of *Alnus glutinosa* lying across a stream in a ravine forest (Lhánice), on fallen trunk of deciduous tree in an alluvial forest (Studénka), and in *Quercus-Carpinetum* (Louka).

**Collections studied.** Lhánice, Mohelnička stream valley SW of the village, Mohelnička Nature Reserve, at the bottom of the valley, alt. 260–300 m, 5 May 2008 leg. et det. J. Běťák (BRNU). – Louka, Háj u Louky Nature Reserve, alt. 300–330 m, 30 June 2007 leg. Z. Vávrová, det. D. Dvořák (BRNU). – Studénka-Nová Horka, forest known as V Oboře between the village and W bank of Nový rybník Pond, alt. 240 m, coord. 49°41'52"N, 18°4'12"E, 16 Oct. 2009 leg. et det. H. Deckerová (herb. H. Deckerová).

**Remarks.** *Crepidotus crocophyllus* is easily distinguished by its combination of a rusty squamulose pileus, a non-gelatinized pileipellis and globose, verruculose spores. The shape of the cheilocystidia found in our specimens is very appropriate to the description by SENN-IRLET (1995). Those described by CONSIGLIO & SETTI (2008) are shaped differently.

LAZEBNÍČEK (1970) published the first record of *Crepidotus crocophyllus* in the Czech Republic. Since then, it has been known almost exclusively from lowland alluvial forests near the confluence of the Rivers Morava and Dyje in the southernmost part of Moravia, where it is rather common in places (see ANTONÍN *et al.* 2000: 60). Other published localities are the Rendezvous National Nature Monument near Valtice (FELLNER 1995, POUZAR 2006), the Křivé jezero National Nature Reserve, the Dolní Mušovský luh Nature Monument and the Plačkův les Nature Monument (MACKOVČIN *et al.* 2007), as well as the surroundings of the village of Nejdek (MIKŠÍK 2005). There is a further unpublished collection in the BRNM herbarium: Břeclav, alluvial forest c. 2 km S–SSE of the railway station in town, fallen trunk of broadleaved tree, 26 May 2005 leg. et det. A. Vágner (BRNM 699728).

In the Red List of macromycetes of the Czech Republic, *Crepidotus crocophyllus* is considered critically endangered (HOLEC 2006). The last record, unpublished to date, and three new localities broaden the known geographical and ecological range of *Crepidotus crocophyllus* in the Czech Republic. The collections from Lhánice and particularly from Louka differ from the previously known habitat of this species in the region. Hence it may be assumed that *Crepidotus crocophyllus* is spreading in Moravia.

***Elaphomyces septatus* Vittad.**

(Photo 6)

**Description.** For a detailed macroscopic description see MONTECCHI & SARASINI (2000).

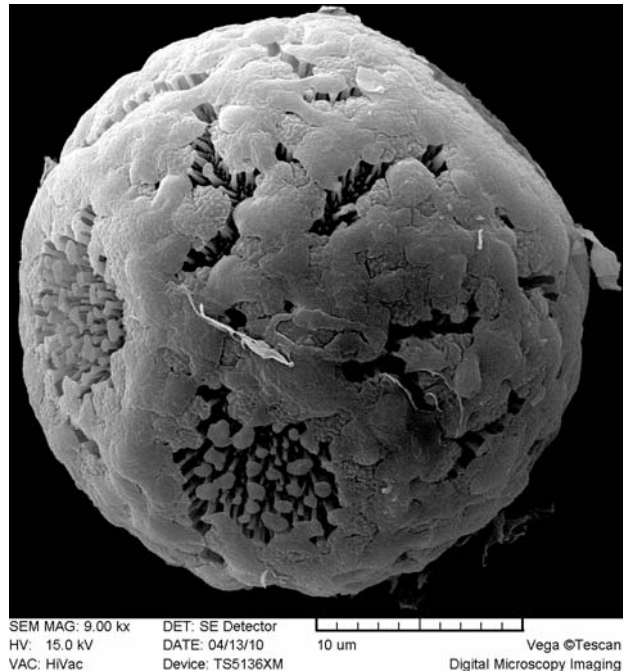
Basidiospores 28–35 µm (without ornamentation), 30–48 µm (including ornamentation), globose, with up to 2.0-µm-high, finely aculeate ornamentation (aculei long, slender, almost fibril-like, often with confluent tops – see photo), pale brownish-greyish in KOH, even when mature.

**Habitat.** In the upper humus layer of a thermophilic broadleaved forest (*Carpinus betulus*, *Quercus* sp., *Tilia* sp., with scattered *Pinus sylvestris*).

**Collection studied.** Kobeřice near Brno, in the vicinity of the village, alt. 300–350 m, coord. 49°5'N, 16°53'E, 15 March 2009 leg. V. Hrazdil, det. V. Antonín and A. Vágner (BRNM 714651).

**Remarks.** *Elaphomyces septatus* is a species with smooth and dark (dark brown to black-brown) fruit-bodies. It is characterized by very large basidiospores (with *E. maculatus* the largest in this group) decorated with distinct aculeate ornamentation. The pale-coloured gleba and even mature basidiospores are also very distinctive characters.

This is a very rare fungus. MONTECCHI & SARASINI (2000) mentioned only two herbarium specimens from Italy. It is also known from France (ANONYMUS 2004), Spain (DOMÍNGUES 2010), and Denmark (VESTERHOLT *et al.* 2003). It is not included in the most recent list of ascomycetous hypogeous fungi (VALDA 2009). The collection presented here, therefore, represents the first record in the Czech Republic.



**Photograph 6.** *Elaphomyces septatus* (SEM photomicrographs of basidiospores, Kobeřice, BRNM 714651).

### *Geastrum berkeleyi* Massee

**Description.** For a detailed macro- and microscopic description, see e.g. SUNHEDE (1989).

**Habitat.** On humus-rich soil in young *Fraxinus excelsior* stand (Hrubá Vrbka), in *Quercus-Carpinetum* (Dražovice) and on bare soil on shaded hollow path (Petrůvka).

**Collections studied.** Petrůvka, U Petrůvky Nature Monument, 25 Sept. 2007 leg. I. Jongepierová, herb. J.W. Jongepier. – Hrubá Vrbka, c. 2 km NNW of the village, 29 March 2008 leg. et det. D. Dvořák, confirm. Z. Pouzar (BRNU). – Dražovice, forest known as Dražovický hájek wood, 11 Apr. 2010 leg. et det. V. Antonín (BRNM 724698).

**Remarks.** *Geastrum berkeleyi* is a medium-sized species, well defined by the combination of non-hygroscopic exoperidium, rough, sandpaper-like surface of the endoperidium, plicate peristome and by growing in humus and nutrient-rich places in forests and parks. KOTLABA & POUZAR (1987) summarized the distribution of *Geastrum berkeleyi* in the former Czechoslovakia and presented one locality in Bohemia and two in Moravia, with the last Moravian record (Horní Věstonice, Děvičky) in 1964. LÁZNIČKA

(1984, 1989) published two new Moravian localities (Oslavice; Náměšť nad Oslavou – probably not supported by herbarium specimens), while four new Bohemian localities have been discovered in the past 20 years (see SKÁLA 1995, ZÍTA 2005, MIKŠÍK 2005b). The three finds published here represent new Moravian localities after more than 20 years. At present, *Geastrum berkeleyi* is known from seven localities in the Czech Republic.

*Geastrum berkeleyi* is included as a critically endangered taxon in the Red List of fungi (macromycetes) of the Czech Republic (KOTLABA *et al.* 2006). With regard to the above-mentioned localities, its status might be reconsidered.

***Lepiota griseovirens* Maire**

(Figs 7–8)

**Description.** For a detailed macroscopic description, see e.g. CANDUSSO & LANZONI (1990), REID (1972), and VELLINGA (2001, as *L. poliochloodes*).

Basidiospores 7.5–9(–10)×3.75–4.5 μm, Ø = 8.7×4.2 μm, E = 1.9–2.3, Q = 2.1, spur-shaped, subcylindrical, slightly thick-walled, dextrinoid. Basidia 23–27×7.5–9.0 μm, 4-spored, clavate, sometimes with median constriction, clamped. Basidioles up to 28×5.0–8.0 μm, clavate, (sub)cylindrical, subfusoid. Cheilocystidia 15–30×6.0–9.0 μm, clavate, (sub)fusoid, thin-walled, clamped. Trama hyphae ± cylindrical or subinflated, clamped, non-dextrinoid, up to 15 μm wide. Pileipellis a cutis consisting of ± cylindrical, clamped, smooth or incrustated, ± slightly thick-walled, non-dextrinoid, up to 6.0 μm wide hyphae; pileus hairs cylindrical, narrowly clavate or subfusoid, slightly thick-walled, obtuse, up to c. 200 μm long and 15 μm wide, brownish-greenish in KOH. Stipitipellis a cutis of cylindrical, parallel, slightly thick-walled, mostly incrustated, clamped, up to 6.0 μm wide hyphae. Caulocystidia 15–30×5.0–6.5 μm, appressed to erect, clavate or cylindrical, obtuse, thin-walled.

**Habitat.** On soil under *Rosa* sp. in xerothermic grassland with scattered *Robinia pseudacacia*, *Prunus mahaleb* and *Rosa* spp.

**Collection studied.** Miroslav, Miroslavské kopce National Nature Monument, Markův kopec hill, alt. 280–300 m, coord. 48°56'22"N, 16°18'58"E, 5 Nov. 2005 leg. et det. V. Antonín 05.273 (BRNM 699431).

**Remarks.** Having spurred basidiospores and a non-hymeniform pileipellis, *Lepiota griseovirens* belongs to sect. *Stenosporae* (J.E. Lange) Kühner (BON 1993). It is also typical in having a greyish-greenish or greenish-brown pileus. It grows in deciduous and coniferous (especially *Pinus*) woods on sandy or loam-rich soils, in coastal dunes, on river banks, in ruderal localities, etc.

There are two ways in which to interpret the original description of *Lepiota griseovirens* R. Maire. We decided to follow M. Bon (BON 1993; for further discussion see e.g. TOFTS 2002, VELLINGA & HUIJSER 1995). One closely related species is *Lepiota obscura* (Locq. ex Bon) Babos [= *L. griseovirens* var. *obscura* Locq. ex Bon, *L. griseovirens* s. Vellinga et Huijser 1993], which has a darker pileus, a red-orange-tinged stipe base, larger (up to 10(–11)×4.5(–5.0) μm) and slightly differently shaped basidiospores, and a less distinct pileipellis underlayer (CANDUSSO & LANZONI 1990, BON 1993). Another species with spurred basidiospores and a green-tinged pileus, *Lepiota*

*grangei* (Eyre) Kühner, differs particularly in its larger basidiospores ((9–)10–12(–13)×3.0–4.2(–4.5) μm).

Under the name *Lepiota griseovirens*, the species has been published from England (REID 1972), France (BON 1993), Italy (CANDUSSO & LANZONI 1990), Germany, Denmark, Poland (ENDERLE & KRIEGLSTEINER 1989), and Switzerland (BREITENBACH & KRÄNZLIN 1995); it was published as *L. poliochloodes* from the Netherlands (VELLINGA 2001). In many cases, however, approaches to it are not clear. The collection published here represents the first published record in the Czech Republic.

***Lepiota lilacea* Bres.**

(Figs 15–17, Photo 4)

**Description.** Pileus up to 3.1 cm broad, at first hemispherical, later convex with low, broad umbo, surface at first smooth, finely velutinous, soon breaking up into small, irregular scales, which are pale brownish to dirty pinkish-carneous, later more smoky greyish on whitish background; margin at maturity sometimes sulcate. Lamellae crowded, ventricose, free, whitish, edge finely floccose. Stipe cylindrical or slightly tapering upwards, up to 30×4 mm, silky fibrillose, whitish to pale reddish-carneous, sometimes with several girdles of small squamules at the base, which are concolorous with those on the pileus. Ring well-developed, settled in upper half of the stipe, cuff-like, white from above, brown to dark greyish brown from below. Smell similar to *Lepiota cristata*, taste unknown.

Basidiospores 4.5–6.5×(2.75–)3.0–3.75(–4.5) μm, Ø = 5.4×3.2 μm, E = 1.4–2.0, Q = 1.6–1.7, ellipsoid, ± thin-walled, non-dextrinoid. Basidia 16–20×5.0–7.0 μm, 4-spored, clavate, clamped. Basidioles 9.0–20×3.5–7.0 μm, subcylindrical, clavate or subfusoid. Cheilocystidia 17–36×8.0–18 μm, clavate, pyriform, thin-walled, hyaline, non-dextrinoid, clamped. Trama hyphae cylindrical to subinflated, thin-walled, clamped, non-dextrinoid, up to 20 μm wide. Pileipellis a hymeniderm consisting of 23–78×5.0–15-μm, clavate, subcylindrical, sometimes irregular or branched, thin- to slightly thick-walled, clamped cells with thick-walled parts brown in KOH. Stipitipellis a cutis of cylindrical, parallel, slightly thick-walled, smooth, non-dextrinoid, clamped, up to 5.0 μm wide hyphae. Annulus of cylindrical, ± slightly thick-walled, clamped hyphae with terminal cells similar to cheilocystidia.

**Habitat.** On soil in detritus under *Acer negundo*, *Fraxinus excelsior*, *Tilia cordata* and *Prunus mahaleb* in a xerothermic grassland with scattered *Robinia pseudacacia*, *Prunus mahaleb* and *Rosa* spp. (Miroslav), under *Robinia pseudacacia* at a forest margin (Žarošice), on bare soil in a park under *Betula pendula* (Brno-Řečkovice), in a lawn (Biskoupky) and *Cedrus atlantica* (Brno, Kotlářská Street), on bare ground in flower-bed with vegetables (Koryčany), and on a reclaimed coal mine waste tip (Ostrava). However, it has also been commonly collected in flower pots (Bystrc, Žabovřesky, Kyjov, Tovačov).

**Collections studied.** Ostrava-Mariánské Hory, 3 July 1964 leg. J. Kuthan and J. Veselský, det. J. Herink (PRM 611015). – Tovačov, secondary school, alt. 200 m, coord. N 49°25'7"N, 17°17'2"E, 25 Aug. 2009 leg. Z.

Gomolová, det. V. Antonín (BRNM 724683). – Kuřim, forest known as Horka, alt. 340–383 m, coord. 49°17'55"N, 16°31'51"E, Oct. 1944 leg. et det. F. Šmarda (BRNM 325043). – Brno-Černá Pole, Arboretum of Mendel University, coord. 49°12'53"N, 16°36'52"E, 17 Sept. 1993 leg. et det. A. Vágner (BRNM 652733). – Brno, Kotlářská Street, Masaryk University campus, coord. 49°12'19.4"N, 16°35'50.5"E, 3 Nov. 2004 leg. et det. D. Dvořák (BRNU). – Brno-Žabovřesky, Stránského Street, alt. 210 m, coord. 49°12'47"N, 16°34'4"E, 25 Nov. 2008 leg. Z. Puváková, det. D. Dvořák (BRNU). – Brno-Bystrc, Kachlíkova Street, alt. 275 m, coord. 49°13'19.7"N, 16°31'0.6"E, 23 March and 4 Apr. 2009 leg. et det. D. Dvořák (BRNU). – Brno-Řečkovice, grounds of former army barracks, alt. 305 m, coord. 49°15'3.9", 16°34'25.9", 2 July 2009 leg. et det. D. Dvořák (BRNU). – Biskoupky, near the S margin of the village, alt. 260 m, coord. 49°5'48.6"N, 16°16'53.4"E, 1 June 2010, leg. et det. D. Dvořák (BRMU) – Žarošice, 2 Sept. 1946 leg. et det. V. Vacek (PRM 691499). – Koryčany, settlement of Česky, alt. 455 m, coord. 49°5'38.1"N, 17°10'6.1"E, 27 June 2009 leg. J. Běťák, det. D. Dvořák (BRNU). – Kyjov, Strážovská Street, alt. 210 m, in the same flowerpot as in Brno, Stránského Street, 20 March 2009 leg. Z. Puváková, det. D. Dvořák (BRNU). – Miroslav, Miroslavské kopce National Nature Monument, part known as U Kamene, alt. 240–250 m, coord. 48°55'53"N, 16°18'13"E, 16 July 2005 leg. et det. V. Antonín 05.46 (BRNM 695496).

**Remarks.** *Lepiota lilacea* is especially characterized by a purplish-brown or lilaceous pileus, a lilaceous stipe in its lower part, well-developed, a cuff-like dark-coloured ring, small, non-dextrinoid basidiospores and a hymeniform pileipellis. Having these characters, it belongs to sect. *Lilaceae* Bon (BON 1993, ZELENÝ 2006).

*Lepiota cristata* (Bolton: Fr.) P. Kumm. differs macroscopically in generally paler colours without lilac tinges, while microscopically it is easily distinguishable by its truncate to spurred, dextrinoid spores. The closely related species *Lepiota rubella* Bres. is a smaller fungus with hairy, especially at pileus centre dense, squamules, without an annulus or with not more than a floccose annular zone, smaller basidiopores (3.5–5.0×2.5–3.0 µm), and smaller cheilocystidia (15–22×5–6.5 µm, VELLINGA 2001).

*Lepiota lilacea* is a widespread species, collected in Europe in the south (Italy), centre (Germany) and north (Denmark, Finland, Sweden) (CANDUSSO & LANZONI 1990, ENDERLE & KRIEGLSTEINER 1989, LANGE 2008, VELLINGA 2001). It is, however, rare everywhere. From the Czech Republic, it was mentioned only once by VELENOVSKÝ (1920–1922), from central Bohemia (near Peruc; ZELENÝ 2006). Material from three other unpublished Bohemian localities (Praha, Karlštejn, Vodňany) is deposited in the PRM herbarium. *Lepiota lilacea* is a highly poisonous fungus (LANGE 2008).

***Lyophyllum leucophaeatum* (P. Karst.) P. Karst.**

(Figs 9–10)

**Description.** Basidiocarps single, turning black where damaged. Pileus 35 mm broad, broadly conical, with broad, obtuse, central umbo, reflexed and shortly involute at sometimes striate margin, tomentose to irregularly fibrillose, finely fibrillose-squamulose, uniformly greyish beige (4C2). Lamellae moderately close, l = 3–4, beige-greyish with concolorous, smooth edge. Stipe 50×7 mm, cylindrical with clavate, up to 12-mm-broad base, fibrillose-tomentose at apex, longitudinally fibrillose otherwise, concolorous with pileus but paler, dark brown-grey at base; basal tomentum white.

Basidiospores 7.0–8.5(–10)×3.0–4.0 µm, Ø = 8.0×3.5 µm, E = 1.7–2.7, Q = 2.5, ellipsoid-fusoid, almost boletoid, finally rugulose or verruculose, ± thin-walled, non-dextrinoid. Basidia 22–28×6.0–7.0 µm, 4-spored, clavate, sometimes with median

constriction, clamped. Basidioles 20–28×6.0–7.0 µm, clavate, cylindrical, subfusoid, clamped. Marginal cells 13–30×2.5–5.0 µm, cylindrical to narrowly clavate, irregular, thin-walled, clamped. Pileipellis a cutis consisting of cylindrical, ± thin-walled, smooth or minutely incrustated, clamped, up to 6.0 µm wide hyphae; terminal cells ± cylindrical, often irregular or branched. Stipitipellis consisting of cylindrical, parallel, slightly thick-walled, smooth or incrustated, clamped, non-dextrinoid, up to 6.0-µm-wide hyphae. Caulocystidia absent.

**Habitat.** On soil in detritus under *Picea abies* in a montane spruce forest (Tesák), and under *Fraxinus excelsior* and *Salix* sp. in a floodplain forest (Lednice).

**Collections studied.** Hostýnské vrchy hills, Rajnochovice, Tesák Nature Reserve, alt. 580–630 m, coord. 49°22'19"N, 17°47'27"E, 22 Sept. 2006 leg. F. Janečka, det. V. Antonín (BRNM 704839). – Lednice, Pastvisko National Nature Reserve, alt. 161 m, coord. 48°48'43"N, 16°47'54"E, 3 Oct. 2001 leg. et det. Z. Bieberová (BRNM 724638).

**Remarks.** *Lyophyllum leucophaeatum* is one of the blackening *Lyophyllum* species, a very distinctive character of which is its finely rugulose or verruculose basidiospores of an almost boletoid shape. It grows in both broadleaved and coniferous woods in somewhat wet stands.

Its distribution in the Czech Republic is not fully known. Some recent records come from South Bohemia (Tábor region) and North Moravia (vicinity of Ostrava, ANTONÍN 2006). This species is classified as endangered in the Red List of fungi (macromycetes) of the Czech Republic (ANTONÍN l.c.).

We also studied a collection from Slovakia (Nízké Tatry Mts., Liptovská Teplička, base of Doštianka Hill, in a bog under *Salix aurita* and *Picea abies*, 9 Sept. 2006 leg. et det. V. Antonín, BRNM 704944), which probably represents the first published collection in Slovakia (cf. LIZOŇ & BACIGÁLOVÁ 1998, ŠKUBLA 2003).

### *Psilocybe laetissima* Hauskn. & Singer

(Figs 11–13, Photo 5)

Syn. *Psilocybe callosa* s. Huijsman (1961), Arnolds (1983)

**Description.** Basidiocarps single. Pileus (± broadly) conical with distinct, obtuse umbo within a slight depression at centre, almost applanate when old, inflexed at margin, slightly sticky to almost dry, glabrous, with fibrillose velar remnants towards and at margin only, entirely orange-yellow (5B5) when young, then slightly paler (4-5A5), but always with orange-yellow tinge. Lamellae moderately close, L = c. 30, l = 4–5, emarginate and with distinct tooth, dirty whitish when young, then becoming ± purplish tinged, up to grey-brown with purplish tinge with paler and distinctly pubescent edge when old. Stipe central, 25–45×1–3 mm, cylindrical, slightly broadened at base (up to 5–6 mm), sometimes curved, slightly flocculose at apex, otherwise finely fibrillose, lustrous, finely fibrillose-squamulose at base, whitish when young, then with yellowish tinge especially in lower part, fibrillose squamules at base slightly darker than stipe surface; basal tomentum dirty yellowish. Context with earthy smell.



Basidiospores 10–12(–13.5)×(6.0–)6.5–7.5(–8.5)  $\mu\text{m}$ ,  $\text{Ø} = 11.2 \times 6.9$   $\mu\text{m}$ ,  $E = 1.5\text{--}1.8$ ,  $Q = 1.6$ , ellipsoid, ovoid, slightly thick-walled (walls up to 0.5  $\mu\text{m}$  thick), smooth, brown in KOH, with up to 1.5  $\mu\text{m}$  broad germ pore. Basidia 28–32×11.5–13  $\mu\text{m}$ , 4-spored, broadly clavate, clamped. Basidioles 13–33×5.0–12  $\mu\text{m}$ , clavate, clamped. Cheilocystidia 26–51×4.0–9.0  $\mu\text{m}$ , cylindrical, lageniform, fusoid, often irregular, submoniliform, rarely branched, thin-walled, clamped. Trama hyphae cylindrical to subinflated, thin-walled, clamped, smooth, non-dextrinoid, up to 10  $\mu\text{m}$  wide. Pileipellis an ixocutis consisting of cylindrical, thin-walled, clamped, smooth, up to 6.0  $\mu\text{m}$  wide hyphae. Subpileipellis made up of  $\pm$  cylindrical, incrustated, slightly thick-walled, up to 10  $\mu\text{m}$  wide hyphae. Stipitipellis a dry cutis composed of cylindrical, parallel,  $\pm$  slightly thick-walled, smooth or minutely incrustated, clamped, up to 5.0  $\mu\text{m}$  wide hyphae. Caulocystidia 22–52×4.0–6.5  $\mu\text{m}$ , cylindrical, subfusoid, subulate, regular, irregular, rarely branched, thin-walled, clamped.

**Habitat.** In grass on calcareous soil at the margin of a vineyard and in mosses and grasses also on calcareous soil (Stránská skála rock).

**Collection studied.** Brno-Slatina, Stránská skála National Nature Monument, alt. c. 310 m, coord. 49°11'26"N, 16°40'26", 11 Sept. 2001 leg. Bieberová, det. V. Antonín (BRNM 728466). Pavlovské vrchy Mts. (Pálava Protected Landscape Area), Pavlov, Děvín – Kotel – Soutěska National Nature Reserve, NW of village margin, alt. c. 300 m, coord. 48°52'3"N, 16°39'45"E, 18 Sept. 2008 leg. V. Antonín and R. Sullock-Enzlin, det. A. Hausknecht (BRNM 710313).

**Remarks.** *Psilocybe laetissima* is characterized by having a brightly coloured, never translucently striate pileus, purplish tinged lamellae, moderately large basidiospores, and cylindrical, (narrowly) lageniform, fusoid, often irregular cheilocystidia. It grows in open, dry places, whether poorly manured, semi-natural or cultivated, influenced by human activity.

Generally, this is a widely distributed species throughout Europe. It is known from Austria, Hungary, Germany (HAUSKNECHT & SINGER 1986), Italy (HAUSKNECHT 1993), Denmark, Norway, Sweden (VESTERHOLT 2008), France, and the Netherlands (ARNOLDS 1983, NOORDELOOS 1999). The species had previously been found only at one locality in the Czech Republic (Bohemian Karst, Kosov hill near Beroun, BOROVIČKA 2006). Our finds represent the second and third collections in this country and the first ones in Moravia. It is included as a data-deficient taxon in the Red List of fungi (macromycetes) of the Czech Republic (BOROVIČKA 2006).

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